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Procedures for Hearings

Sec. 29-2-1. Applicability, definitions

(a) These hearing procedures shall apply to all compliance meetings and contested cases held by the Department of Public Safety, except those hearings held under the provisions of other regulations of the Department of Public Safety.

(b) As used herein “agency” means the Department of Public Safety.

(c) As used herein, “certificate” includes the whole or part of any Department of Public Safety permit which the department issues under authority of the General Statutes and which (1) authorizes practice of the profession by certified persons, (2) prohibits a person from falsely representing that he is certified to practice the profession unless the person holds a certificate issued by the department and (3) requires as a condition of certification that a person submit specified credentials to the department which attest to qualifications to practice the profession.

(d) As used herein, “license” includes the whole or part of any Department of Public Safety permit, approval, or similar form of permission which the department issues under authority of the General Statutes and which requires; (1) practice of the profession by licensed persons only, (2) demonstration of competence to practice by examination or other means and meeting of certain minimum standards and (3) enforcement of standards by the department.

(e) As used herein, “registration” includes the whole or part of any permit which the department issues under authority of the General Statutes and which; (1) requires persons to place their names on a list maintained by the department before they can engage in the practice of a specified profession or occupation, (2) does not require a person to demonstrate competence by examination or other means and (3) may be revoked or suspended by the department for cause.

(f) As used herein, “practitioner” includes any person possessing a certificate, license, or registration which the department issues under authority of the General Statutes.

(Effective September 25, 1987)

Sec. 29-2-2. Opportunity to show compliance

(a) No revocation or suspension of any certificate, license or registration is lawful unless prior to the institution of agency proceedings, the agency gave notice by mail to the practitioner of facts or conduct which warrant the intended action, and the practitioner was given the opportunity to show compliance with all lawful requirements for the retention of the certificate, license or registration.

(b) Notification of such compliance conference shall be by certified mail. Said notice shall contain:

(1) A statement of the time, date and place of the compliance conference;

(2) A reference to the statute(s) or regulation(s) allegedly violated;

(3) A clear and concise factual statement sufficient to inform each respondent of the acts or practices alleged to be in violation of the law; and

(4) A statement that each respondent may be represented by counsel.

(c) Compliance conferences shall be recorded but need not be transcribed and the strict rules of evidence are not applicable.

(d) The commissioner shall designate a person to preside at such compliance conference. After said compliance conference said designated presiding officer shall report in writing his recommendations to the commissioner.

(Effective September 25, 1987)

Sec. 29-2-3. Contested cases

(a) A contested case means a proceeding, including but not restricted to licensing, in which the legal rights, duties or privileges of a party are required by statute to be determined by the Department of Public Safety after an opportunity for hearing or in which a hearing in fact is held, but does not include hearings referred to in Section 4-168 of the Connecticut General Statutes.

(b) When the department has reason to believe there has been a violation of the statute(s) or regulation(s) administered by the department, it shall issue a complaint by certified mail to the respondent.

(c) The notice in contested cases shall contain:

(1) A statement of the statutory authority and jurisdiction for instituting the proceedings;

(2) A reference to the specific statutory sections(s) or regulations alleged to be violated;

(3) A short and plain statement of the matters asserted sufficient to inform each respondent of the acts or practices alleged to be in violation of the law;

(4) The time, date, place and nature of the hearing; and

(5) A statement that each respondent may, if he desires, be represented by an attorney.

(d) Notice of any matter will be sent by regular or certified mail to the respondent, or if represented by counsel, to such counsel.

(e) If a respondent can reasonably show a need for additional time to prepare a defense to the alleged statutory violation, an extension of time may be granted by moving the scheduled hearing to a later date. The granting of such a request is within the complete discretion of the commissioner or his designee.

(f) If a respondent can reasonably show that the complaint is unclear or ambiguous as to the nature of the acts in violation of the law, he may file with the department a written motion for a more detailed statement of the nature of the charges against him. The granting or denial of such a motion is within the complete discretion of the commissioner or his designee.

(g) Appearances, admissions and denials, answers, motions and any other pleading which a respondent wishes considered by the commissioner or his designee prior to the convening of a contested case proceeding may be filed up to seven days prior to the hearing date. Failure to file any pleadings by any party will not prevent the department from proceeding with the matter. However, if a respondent can reasonably show a need for additional time to submit documentation an extension of time may be granted. The granting of such request is within the complete discretion of the commissioner or his designee.

(Effective September 25, 1987)

Sec. 29-2-4. Pre-hearing procedure in contested cases

(a) Any time after the issuance of a complaint and before the scheduled hearing date, the commissioner may order or a respondent may request an informal pre-hearing conference. The granting or denial, or a request for a pre-hearing conference is within the complete discretion of the commissioner or his designee.

(b) A pre-hearing conference may be held for any of the following purposes:

(1) to narrow the scope of the issues in dispute;

(2) to obtain stipulations as to matters of fact;

(3) to stipulate as to the authenticity of documents which are to be offered in evidence;

(4) to stipulate as to the qualification of any expert witnesses who are to testify at the hearing; and

(5) to discuss the possibility of an informal disposition of the complaint.

(c) A pre-hearing conference need not be recorded, but a written record will be made of any stipulations as to matters of fact, as to the authenticity of documents, or as to the qualification of expert witnesses. Any such written record will be signed by each of the individual respondents or his counsel and by the commissioner or his authorized representative.

(Effective September 25, 1987)

Sec. 29-2-5. Conduct of adjudicative hearings in contested cases

(a) Hearings in contested cases shall be presided over by the commissioner or his designated hearing officer.

(b) Said commissioner or hearing officer shall have the power to:

(1) Regulate the course of the hearing and the conduct of the parties and their counsel therein;

(2) Insure that all testimony is given under oath;

(3) Rule upon offers of proof and receive evidence;

(4) Consider and rule upon all motions; and

(5) Require any additional written and/or oral argument.

(c) Each party in an adjudicative hearing shall have the right to present evidence, cross examine witnesses, enter motions and objections and assert all other rights essential to a fair hearing.

(d) Intervention by interested parties shall be permitted in any contested case, as provided by applicable statute or otherwise within the discretion of the commissioner or hearing officer.

(e) All adjudicative hearings in contested cases shall be recorded and shall be conducted in accordance with the provisions of chapter 54 of the General Statutes.

(Effective September 25, 1987)

Sec. 29-2-6. Transcript of the proceedings

(a) At the close of the reception of evidence, the respondent or any other party of record may file a written request addressed to the agency for a written transcript of the proceedings. If no such written request is filed, the department may order that a written transcript be prepared.

(b) If any party of record desires a copy of the transcript, it will be made available to him upon written request and the tendering of the appropriate cost.

(Effective September 25, 1987)

Sec. 29-2-7. Informal disposition in contested cases

(a) Unless precluded by law, informal disposition may be made of any contested case by stipulation, agreed settlement, consent order or default. A respondent may agree to enter an agreement containing a consent order in lieu of a hearing on the issue(s). Such agreement may be negotiated by the respondent or his counsel and the authorized representative of the department. The acceptance of a consent agreement is within the complete discretion of the commissioner or his designee.

(b) A consent agreement shall contain:

(1) An admission of all jurisdictional facts;

(2) An express waiver of the right to seek judicial review or otherwise challenge or contest the validity of the order;

(3) An express waiver of the requirement that the decision of said commissioner or hearing officer contain findings of fact and conclusions of law;

(4) A provision that the complaint may be used in construing the terms of the order;

(5) A statement that the order contained therein shall have the same force and effect as an order entered after a full hearing and shall become final when issued;

(6) A statement that said order shall not be effective unless and until accepted and approved by the commissioner or his designee;

(7) The signature of each respondent or his attorney; and

(8) The signature of the commissioner or his designee accepting and approving the consent agreement.

(Effective September 25, 1987)

Sec. 29-2-8. Proposal for decision

When in a contested case a majority of the officials of the agency who are to render the final decision have not heard the case or read the record, the decision if adverse to a party to the proceeding other than the agency itself, shall not be made until a proposal for decision is served upon the parties and an opportunity is afforded to each party adversely affected to file exceptions and present briefs and oral argument to the officials who are to render the decision. The proposal for decision shall contain a statement of the reasons therefore, and of each issue of fact or law necessary to the proposed decision, prepared by the person who conducted the hearing or one who has read the record. The parties by written stipulation may waive compliance with this section.

(Effective September 25, 1987)

Sec. 29-2-9. Final decision in a contested case

(a) The final decision or order in a contested case shall be rendered by the commissioner or his designee after due consideration of the entire record.

(b) A final decision or order adverse to a party in a contested case shall be in writing or stated in the record.

(c) Parties shall be notified either personally or by mail of any decision or order. Upon request, a copy of the text of the final decision or order shall be sent by mail to each of the respondents and respondent's counsel, and to any other party of record.

(d) The department shall proceed with reasonable dispatch to conclude any matter pending before it and shall render a final decision in all contested cases within ninety days following the close of evidence and filing of briefs in such proceedings.

(Effective September 25, 1987)

Sec. 29-2-10. Summary suspension procedures

If the department finds that public health, safety or welfare imperatively requires emergency action, and incorporates a finding to that effect in its order, summary suspension of a certificate, license or registration may be ordered pending proceeding for revocation or other action. These proceedings shall be instituted within thirty days of the summary suspension.

(Effective August 4, 1988)

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Firearms Evidence Databank

Sec. 29-7h-1. Definitions

As used in section 29-7h-1 to section 29-7h-6, inclusive, of the Regulations of Connecticut State Agencies:

(1) “Databank” means the firearms evidence databank established by the Division of Scientific Services within the Department of Public Safety.

(2) “NIBIN” means the National Integrated Ballistic Information Network.

(Adopted effective December 19, 2002)

Sec. 29-7h-2. Test fire submission procedures

(a) Each test fire shall be submitted to the laboratory in an envelope obtained from the laboratory evidence receiving unit or such container as laboratory staff may specify.

(b) Each envelope shall be labeled on the outside of the envelope with the manufacturer, type of handgun, serial number, date of test fire and name of the person collecting the test fire. Additional comments or such additional information as laboratory staff may require to properly process the submission may be added in the appropriate space.

(c) Each envelope containing a test fire shall be sealed in a tamper-evident manner at the time of submission to the laboratory.

(d) Whenever practicable, test fires shall be submitted to the laboratory in batches. When submitted in batches, test fire envelopes shall be submitted in a package or container labeled to state the number of test fire envelopes present in each package or container. Each package or container shall constitute a submission in the Laboratory Information Management System.

(e) Test fires shall be performed with full metal case ammunition, with two bullets and two fired cartridge cases to be collected from each handgun. Bullets shall be collected in a manner suitable for subsequent comparison.

(f) Upon receipt of a package of test fires from a police department, laboratory staff shall assign a case number with the designation “TF.”

(g) Test fires with such designation shall not constitute evidence at the time of submission.

(h) Any subsequent submission of test fires by the same police department may be accepted under the initial “TF” number until given the next submission number.

(i) The laboratory shall issue a receipt reflecting the number of test fires.

(j) Each test fire in a submission shall be entered as an item in the databank using the handgun serial number as the item number.

(k) All test fires may be stored in the evidence receiving unit until receipt of written notice by the submitting police department that the handgun is no longer in service or upon receipt of a written search request from an authorized law enforcement agency related to a criminal investigation.

(Adopted effective December 19, 2002)

Sec. 29-7h-3. Handgun submission procedures

(a) General packaging and container requirements

(1) An evidence examination request form (DPS-997C) shall be completed.

(2) Evidence shall be submitted in an initialed, tamper-evident, sealed package or container, which shall meet the following requirements:

(A) Manufactured evidence storage bags shall have a self-sealing capability; initials shall be placed on the seal; and

(B) All other plastic bags used for packaging shall be heat-sealed, with initials on the seal. Plastic bags not specially manufactured for evidence storage shall not be accepted if sealed with evidence tape, as the seal may be compromised.

(3) All containers shall be labeled with the police department case number, item description, item number, date and time seized, and name, initials and badge number of the police officer who seized the item.

(b) Handgun packaging requirements

(1) All handguns shall be unloaded prior to submission, with record made of the exact state in which the handgun was found.

(2) Magazines shall be left out of the handgun. The handgun shall be checked to ensure no live rounds are in the chamber.

(3) Shell casings and projectiles shall be submitted in separate sealed envelopes.

(4) Any handgun legally in police custody pursuant to a criminal investigation shall be submitted to the laboratory for entry into NIBIN (formerly known as Drugfire). The laboratory shall not accept any handgun held by a police department for safekeeping or pursuant to a protective or restraining order.

(5) The handgun shall be accompanied by information regarding whether it was submitted as a result of criminal investigation, recovery of found property or as a consequence of a destruction order. In the latter case, a copy of the destruction order shall accompany the handgun.

(Adopted effective December 19, 2002)

Sec. 29-7h-4. Handguns issued to police department employees

(a) Self-collection of test fires by police departments

Police departments collecting and submitting test fires shall comply with the requirements of section 29-7h-2(b) of the Regulations of Connecticut State Agencies.

(b) Police departments seeking assistance

(1) A police department seeking assistance from laboratory staff in collecting test fires shall contact the laboratory to arrange a mutually convenient time for test firing.

(2) The police department shall supply two cartridges of full metal case ammunition for each handgun.

(3) A representative of the police department shall be present at the time of the test fires. That representative shall be responsible for completing the necessary information on the test fire envelopes and sealing the test fires in a tamper-evident manner.

(4) A supply of the ammunition normally carried by the police department shall be submitted with each group of police department test fires.

(5) No test fire collected pursuant to this section shall be entered into the NIBIN system without a written request related to a criminal investigation submitted by a law enforcement agency.

(Adopted effective December 19, 2002)

Sec. 29-7h-5. Reports and records searches

(a) Search requests may be made in conjunction with evidence submission requests.

(b) Any request to search the databank not contained within an evidence submission request shall be addressed to the laboratory director in writing on agency letterhead, and shall include the name, address, position, telephone number, facsimile number and electronic mail address of the law enforcement agency making the request. The request shall also contain information regarding the purpose of the search. Search requests may be made by personal contact, mail or electronic means.

(c) The laboratory director or his or her designee may initiate searches in the absence of a specific request from a law enforcement agency. Such searches may be made for the purpose of ensuring the accuracy of the databank retrieval system or in furtherance of an official investigation into a criminal offense.

(Adopted effective December 19, 2002)

Sec. 29-7h-6. Police department databank administration

A police department seeking to use NIBIN equipment shall present to the laboratory director or his or her designee a letter from the U.S. Bureau of Alcohol, Tobacco and Firearms (ATF), stating the names of persons from the police department authorized and trained by ATF to operate NIBIN equipment and to make correlations.

(Adopted effective December 19, 2002)

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Operation of a Rotational System For Summoning Wreckers

Sec. 29-23a-1. Definitions

As used in Sections 29-23a-1 to 29-23a-17, inclusive:

- (1) "GVWR" means gross vehicle weight rating;
- (2) "Light-duty service wrecker operator" means a wrecker operator with a wrecker of 11,000 pounds or greater GVWR and a one-car carrier of 14,500 pounds or greater GVWR;
- (3) "Heavy-duty service wrecker operator" means a wrecker operator with two wreckers of 31,000 pounds or greater GVWR and boom capacity of 25 tons and 20 tons, respectively;
- (4) "Heavy-duty-recovery service wrecker operator" means a wrecker operator with two commercially manufactured, heavy-duty hydraulic recovery wreckers, with boom capacities of a total combined rating of 50 tons, intended to service vehicles of 26,001 pounds or greater GVWR, which may include a rotator;
- (5) "Rotator" means a wrecker/recovery vehicle consisting of a rotating superstructure (center post or turntable), adjusting boom, operating machinery, and one or more operator's stations mounted on a frame attached to a truck chassis. Such vehicle has the ability to lift, lower and swing loads at various radii; and
- (6) "Wrecker operator" means a wrecker operator participating in the rotational system established by Sections 29-23a-1 to 29-23a-17, inclusive.

(Adopted effective April 30, 1999; amended December 18, 2003)

Sec. 29-23a-2. Equipment requirements

(a) A wrecker of the type referred to in subdivision (2) of Section 29-23a-1 shall be equipped with a single winch and wheel lift. Such winch shall have a minimum capacity of 8,000 pounds.

(b) In addition to the requirements set forth in subdivision (3) of Section 29-23a-1, a heavy-duty service wrecker operator shall have available at least one wrecker with an under-reach axle lift. Such wrecker shall be capable of towing a loaded tractor-trailer unit. This requirement may be satisfied by a third dedicated under-lift vehicle without a boom.

(c) In addition to the requirements set forth in subdivision (4) of section 29-23a-1, the smallest wrecker available to a heavy-duty-recovery service wrecker operator shall have a 20-ton boom rating and a GVWR of at least 31,000 pounds. One of the two wreckers maintained by such wrecker operator shall have an underlift capable of towing a loaded tractor and trailer combination weighing at least 80,000 pounds. The other wrecker maintained by such wrecker operator shall have a tandem axle with a GVWR of at least 48,000 pounds.

(d) A wrecker operator shall not tow a motor vehicle if the load the towed vehicle places on the wrecker boom assembly exceeds the wrecker's rated boom capacity, or if the weight of the wrecker and the load exceeds the maximum weight rating of the wrecker's axle assemblies as set forth in subsection (b) of Section 14-267a of the Connecticut General Statutes.

(e) Any wrecker operator placed on a heavy-duty-recovery service wrecker operator rotational list shall not be required to comply with section 29-23a-1(4) and subsection (c) of this section until January 1, 2006.

(Adopted effective April 30, 1999; amended December 18, 2003)

Sec. 29-23a-3. Rotational system for summoning wreckers

(a) State police troop commanders shall prepare separate rotational lists for light-duty, heavy-duty, and heavy-duty-recovery service wrecker operators for each

municipality within the geographical area covered by each state police troop. If there is no wrecker service within municipal borders, the troop commander shall establish a rotational list of wrecker operators from adjoining municipalities.

(b) A heavy-duty-recovery service wrecker operator shall respond to all accidents reported to state police on state-police patrolled highways involving a vehicle with a GVWR of 26,001 pounds or greater.

(Adopted effective April 30, 1999; amended December 18, 2003)

Sec. 29-23a-4. Placement on rotational lists

(a) A wrecker operator seeking placement on any rotational list shall apply to the troop commander of the state police troop whose jurisdiction includes the municipality where the wrecker operator's business is located.

(b) A wrecker operator may hold only as many places on a rotational list as it has locations licensed by the Commissioner of Motor Vehicles under authority of sections 14-51 to 14-65j, inclusive, of the Connecticut General Statutes, and Sections 14-63-1 to 14-63-49, inclusive, of the Regulations of Connecticut State Agencies.

(c) The state police troop commander or his or her designee shall confirm that each wrecker operator is able to provide prompt and efficient service and meets all requirements of sections 14-12(h), 14-51 to 14-65j, inclusive, and 14-66 of the Connecticut General Statutes, and Sections 14-63-1 to 14-63-49, inclusive, of the Regulations of Connecticut State Agencies, which pertain to vehicle safety and mechanical standards, dealer/repairer licensing and wrecker licensing.

(d) A wrecker operator shall agree to and comply with the following operational requirements as a condition of placement on a rotational list for a specific municipality:

(1) The wrecker operator shall rent or own a location licensed by the Commissioner of Motor Vehicles within the specific municipality for which placement on a rotational list is sought, and the minimum number of wreckers required by sections 29-23a-1 and 29-23a-2 of the Regulations of Connecticut State Agencies shall be registered to and stored at such location;

(2) Unless use of a wrecker registered at a location in another municipality is approved by the state police troop commander of the municipality where a call for service originated or his or her designee, or there is no rotational list for the municipality from which a call for service originated, the wrecker operator shall respond to a call for service with a wrecker registered to and stored at a location in the municipality where the call for service originated and not with a wrecker registered to or stored at a location in another municipality; and

(3) The wrecker operator shall store vehicles from such municipality at a storage location approved by the state police troop commander of such municipality or his or her designee, unless the approved location is at full capacity. If the approved location is at full capacity, the wrecker operator may store vehicles in another location licensed by the Commissioner of Motor Vehicles, provided that there is no additional charge to the vehicle owner.

(Adopted effective April 30, 1999; amended March 31, 2009)

Sec. 29-23a-5. Performance standards

Except as provided in this section, wrecker operators shall be available 24 hours per day, seven days per week, and shall respond to calls for service on limited-access highways no later than 20 minutes after notification by state police, 30 minutes in all other locations. Where traffic conditions warrant, required response times may be reduced at the discretion of the state police troop supervisor on duty

or his or her designee. Where a shorter response time is required, the wrecker operator shall be so advised when notified of the call for service. Support items provided by a heavy-duty-recovery service wrecker operator shall respond to a call for service within a period of time determined to be reasonable by a state police troop supervisor on duty or his or her designee, taking into account the equipment needed, time of day, traffic volume, weather conditions and such other factors as he or she deems to be appropriate.

(Adopted effective April 30, 1999; amended December 18, 2003)

Sec. 29-23a-6. Qualification of drivers

(a) Six months after the effective date of Sections 29-23a-1 to 29-23a-17, inclusive, drivers for wrecker operators participating in the state police rotational system shall successfully complete the National Driver Certification Program of the Towing and Recovery Association of America or a certification program approved by the Commissioner of Public Safety. Thereafter, drivers shall be certified in accordance with the provisions of this section six months after they begin work for a wrecker operator participating in the state police rotational system. Drivers who can demonstrate that they have at least 10 years of experience operating wreckers need not be certified. Applicants may prove that they have the requisite experience by providing the Commissioner of Public Safety with an employment history.

(b) A heavy-duty-recovery service wrecker operator shall employ at least one driver with heavy-duty-recovery advanced level training and certification by the Towing and Recovery Association of Connecticut, and one driver with no fewer than five years of experience in heavy-duty-recovery operations. Written proof of training and certification or employment history shall be provided to the Commissioner of Public Safety.

(Adopted effective April 30, 1999; amended December 18, 2003)

Sec. 29-23a-7. Operation of the system

(a) The state police troop supervisor on duty or his or her designee shall use rotational lists to arrange the towing or transportation of disabled motor vehicles if the vehicle owner or operator is incapacitated, unavailable or leaves the procurement of wrecker service to the trooper at the scene.

(b) If the vehicle owner or operator is present and able to respond, the trooper shall inquire whether he or she wishes to choose a wrecker service. If he or she wishes to do so, the troop shall notify the wrecker operator selected, except as set forth in subsection (c) of this section.

(c) If the wrecker operator chosen in accordance with subsection (b) of this section cannot be contacted, or is unable or unwilling to respond within the response times set forth in Section 29-23a-5, the next available wrecker operator on the rotational list for the type of towing operation required shall be summoned to the scene to provide service.

(Adopted effective April 30, 1999)

Sec. 29-23a-8. Emergencies

(a) In the event of emergency, the state police troop supervisor on duty or his or her designee shall determine the most expeditious method of obtaining wrecker service. In making such determination, consideration may be given to weather conditions, traffic density and speed, the number of other calls for police services and the availability of police personnel.

(b) If a wrecker operator is summoned out of rotational sequence due to an emergency, the wrecker operator summoned shall be considered to have received its next rotational call.

(Adopted effective April 30, 1999)

Sec. 29-23a-9. Responsibilities of wrecker operators

(a) All wrecker operators shall meet the response times set forth in Section 29-23a-5. The wrecker operator receiving the call for service shall perform the required service. The call for service may not be delegated to another wrecker operator.

(b) Wrecker operators shall promptly and efficiently remove from the roadway designated vehicles, associated debris and spills of fluids used in vehicle operations, such as gasoline, oil or antifreeze. Vehicles shall be removed to the wrecker operator's place of business, an alternate storage location approved by the Commissioner of Motor Vehicles, a location requested by the vehicle owner or operator, or a facility under state police control in furtherance of a criminal investigation. Debris shall be removed to the wrecker operator's place of business, unless directed otherwise by state police, or employees of the Connecticut Departments of Environmental Protection or Transportation.

(c) The wrecker operator shall follow the directives of the trooper or fire officer at the scene and obtain the approval of the trooper at the scene prior to departing from the scene of the call for service. The trooper at the scene shall confirm that the roadway has been substantially cleared of all debris prior to releasing the wrecker operator from the scene.

(d) The wrecker operator shall be responsible for safe removal of the vehicle, its contents and occupants, except where an occupant cannot be legally transported, an arrest has been made or where other arrangements have been made for transportation of occupants. Where the wrecker operator cannot transport all vehicle occupants because of occupancy limitations in the wrecker, the trooper at the scene may assist in providing transportation. Where the trooper at the scene cannot assist in providing transportation, the state police troop supervisor on duty or his or her designee shall make such arrangements as are necessary to safely remove vehicle occupants from the roadway. In order to minimize the likelihood that the wrecker operator cannot transport vehicle occupants because of occupancy limitations, the wrecker operator shall not respond with passengers to a call for service.

(e) The wrecker operator shall provide the troop with a telephone number allowing contact on a 24-hour, seven-day-per-week basis. No more than one such number each for normal duty hours and other than normal duty hours shall be accepted by the troop.

(f) A wrecker operator shall notify the appropriate troop before responding to a request for service not transmitted by state police, if such call causes the wrecker operator to perform the service on a road under state police jurisdiction.

(g) A wrecker operator shall notify the troop whenever a vehicle is removed from the highway pursuant to a rotational call for service, if there is no trooper at the scene at the time the vehicle is to be removed from the highway.

(h) In addition to the equipment required by section 14-66 of the Connecticut General Statutes, a light-duty service wrecker operator responding to a scene shall be equipped with communications equipment, such as a two-way radio or wireless telephone, a second rear spot light, three triangle reflectors and shovels, brooms and any other equipment necessary to clear the roadway of debris.

(i) In addition to the equipment required by section 14-66 of the Connecticut General Statutes, a heavy-duty service wrecker operator responding to a call for

service shall be equipped with communications equipment, such as a two-way radio or wireless telephone, a second rear spot light, a total of 10 flares, 10 triangle reflectors, two shovels (one round, one square), one heavy-duty push broom, two pry bars, one bolt cutter, 10 large T-bolts and shut off fittings for buses. Heavy-duty service wrecker operators shall also be capable of providing air to the towed vehicle to facilitate brake system operation.

(j) In addition to the equipment required by section 14-66 of the Connecticut General Statutes, a heavy-duty-recovery service wrecker operator shall have available communications equipment, such as a two-way radio or wireless telephone, and 12 support items or services as follows:

- (1) air cushions;
- (2) rotator/crane;
- (3) low-bed trailer;
- (4) box trailer (with dock plate or pallet jack);
- (5) forklift or bobcat;
- (6) payloador or backhoe;
- (7) service truck (complete with air compressor, generator and auxiliary tools);
- (8) generator and portable lighting system;
- (9) dump truck or roll-off container dumpster;
- (10) tractor;
- (11) dolly converter; and
- (12) four laborers.

(k) of the first 11 support items referenced in subsection (j) of this section, at least six shall be provided directly by the heavy-duty-recovery service wrecker operator. The remainder may be provided by another business entity, pursuant to written agreement between the heavy-duty-recovery service wrecker operator and such business entity, provided that the items or services shall be available to the heavy-duty-recovery service wrecker operator 24 hours per day, seven days per week, 365 days per year. The heavy-duty-recovery service wrecker operator shall have available at all times the identity, address of principal place of business and telephone numbers of the business entity providing the support items or services. The requirement of four laborers shall be provided by the heavy-duty-recovery service wrecker operator, not by another business entity. A heavy-duty recovery service wrecker operator with multiple business locations need not separately provide support items for each location, provided that the same person, firm or corporation holds the license issued pursuant to section 14-66 of the Connecticut General Statutes for each location.

(l) Vehicle storage facilities shall be used and maintained in accordance with section 14-66 of the Connecticut General Statutes and Sections 14-63-34 to 14-63-37b, inclusive, of the Regulations of Connecticut State Agencies.

(m) A heavy-duty-recovery service wrecker operator shall participate in the fuel saddle tank recovery project of the state Departments of Transportation and Environmental Protection.

(Adopted effective April 30, 1999; amended December 18, 2003)

Sec. 29-23a-10. Discharge from a scene

(a) Whenever the trooper at the scene finds that the wrecker operator is incapable of safe removal of the vehicle, or that the actions of the wrecker operator are a hazard to any person or property, he or she may order that the wrecker operator leave the scene.

(b) Whenever a wrecker operator is ordered from the scene, the trooper who took such action shall submit a written report to the troop commander regarding the circumstances of the incident and the reasons for discharge of the wrecker operator from the scene.

(Adopted effective April 30, 1999)

Sec. 29-23a-11. Additional equipment at the scene

When the wrecker operator at the scene of a call for service determines that additional equipment is necessary to effectuate removal of the vehicle, the wrecker operator shall inform the trooper at the scene that additional equipment is necessary. If the wrecker operator cannot obtain the necessary equipment within a reasonable time of such notification, then the trooper at the scene shall inform the state police troop supervisor on duty or his or her designee of the additional equipment requirements. Such equipment then may be obtained from the nearest known provider able to furnish the equipment requested. The provisions of this section shall not relieve a wrecker operator of the obligation to respond to a call for service with the equipment required by subsections (h) or (i) of Section 29-23a-9.

(Adopted effective April 30, 1999)

Sec. 29-23a-12. On-site repairs

The trooper at the scene of a call for service may request that the wrecker operator provide on-site repairs including, but not limited to, starting the vehicle's ignition or changing a tire. The wrecker operator may refuse to perform such repairs if he or she reasonably believes that remaining at the site is likely to result in unnecessary risk of physical harm or property damage.

(Adopted effective April 30, 1999)

Sec. 29-23a-13. Troop procedures for summoning wreckers

(a) The state police troop supervisor on duty or his or her designee shall contact wrecker operators by telephone in accordance with the requirements of this section. If there is no answer after 10 rings, or the person placing the call encounters a busy signal, the number shall be dialed a second time to ensure that it is correct. If there is no answer a second time, the call shall be logged and the next wrecker operator on the rotational list shall be contacted. In the event of a busy signal, the state police troop supervisor on duty or his or her designee shall attempt to reach the wrecker operator two more times after the initial call before contacting the next wrecker operator on the rotational list. If the state police troop supervisor on duty or his or her designee placing the call reaches an answering service, answering machine or pager system, he or she shall leave a message. Where traffic conditions require a more immediate response, the state police troop supervisor on duty or his or her designee may contact the next wrecker operator on the list after the first call is met with a busy signal, answering service, answering machine or pager system. Any wrecker operator that cannot be reached when contacted shall be placed at the end of the rotational list.

(b) It shall be the responsibility of the wrecker operator to contact the troop and confirm receipt of a call for service received by an answering service, answering machine or pager system. If the wrecker operator does not confirm receipt of the call for service within 10 minutes of notification by state police, or sooner if traffic conditions warrant, the state police troop supervisor on duty or his or her designee may treat the call as if there had been no answer. Where traffic conditions make it impracticable to wait 10 minutes, the wrecker operator who cannot be reached in

a timely manner because of the use of an answering service, answering machine or pager system shall be placed at the end of the rotational list.

(Adopted effective April 30, 1999)

Sec. 29-23a-14. Unsatisfactory service

The trooper at the scene of a call for service who observes unsatisfactory service by a wrecker operator shall file a written report of such unsatisfactory service with the troop commander.

(Adopted effective April 30, 1999)

Sec. 29-23a-15. Waiver

The Commissioner of Public Safety shall grant variations or exemptions from, or approve equivalent or alternate compliance with, Sections 29-23a-1 to 29-23a-17, inclusive, where strict compliance with such provisions would entail practical difficulty or unnecessary hardship or is otherwise adjudged unwarranted, provided any such variation, exemption, approved equivalent or alternate compliance shall, in the opinion of the Commissioner of Public Safety, secure the public safety.

(Adopted effective April 30, 1999)

Sec. 29-23a-16. Removal from list

(a) A wrecker operator may be removed from one or more rotational lists for failing to meet the requirements of Sections 29-23a-1 to 29-23a-17, inclusive, or for violating any statute or regulation concerning the operation of a motor vehicle repair, towing, or storage facility, or any statute or regulation concerning the operation of a motor vehicle. A wrecker operator may also be removed from one or more rotational lists if the wrecker operator, or one or more of its employees, poses a threat to public safety.

(b) Before a wrecker operator may be removed from a rotational list, the state police troop commander responsible for such list shall forward to a hearing officer designated by the Commissioner of Public Safety to conduct removal proceedings, a written complaint specifying the reasons that removal is sought. Removal proceedings shall be conducted as required by Section 29-23a-17.

(Adopted effective April 30, 1999; amended December 18, 2003)

Sec. 29-23a-17. Hearings

Proceedings to remove a wrecker operator from any rotational list shall be conducted in accordance with the requirements of Chapter 54 of the Connecticut General Statutes, the Uniform Administrative Procedure Act, and the regulations of the Department of Public Safety concerning hearings, Sections 29-2-1 to 29-2-10, inclusive.

(Adopted effective April 30, 1999)

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**Organization of the Board, Rules of Practice of or before
the Board, and Declaratory Rulings of the Board**

ORGANIZATION

Sec. 29-32b-1. Description of organization

The Board of Firearms Permit Examiners was created as the Board of Permit Examiners by Public Act No. 633 of the 1967 General Assembly. The Board derives its primary duties and authority from Section 29-32b of the General Statutes as amended. Under that section, the Board is authorized to make inquiries and investigations, take testimony, and render decisions regarding appeals brought to the Board by persons aggrieved by the action or inaction of an issuing authority in matters pertaining to sections 29-28 or 29-28a in the case of pistol and revolver permits, sections 53-206 or 53-206a in the case of dangerous weapons permits, and section 29-36f in the case of eligibility certificates.

(Effective May 1, 1975; amended December 9, 1997)

Sec. 29-32b-2. Chairman

The Chairman of the Board of Firearms Permit Examiners serves as the presiding officer at meetings of the Board at which he is present. However, with respect to hearings of appeals, if said Chairman (1) is not present or (2) is not an attorney authorized to practice law in Connecticut, then a member of the Board who is both present and authorized to practice law in Connecticut shall act as Chairman of the Board during the hearing of an appeal.

(Effective May 1, 1975)

Sec. 29-32b-3. Secretary

The Secretary of the Board of Firearms Permit Examiners shall be responsible for all secretarial duties defined in sections 29-32b-5 through 29-32b-15. The chairman may appoint an interim secretary as needed.

(Effective May 1, 1975; amended December 9, 1997)

Sec. 29-32b-4. Office

The Board shall maintain an office for conducting its day-to-day business. The office shall be staffed by a manager and other personnel as needed. Such manager shall serve as its executive head for routine administrative and operational matters. The official address of the Board is: Board of Firearms Permit Examiners, 251 Maxim Road, Hartford, Connecticut 06114. All communications to the Board should be mailed or delivered to the Board's official address, unless otherwise specifically requested by the Board.

(Effective May 26, 1989; amended December 9, 1997)

Sec. 29-32b-4a. Election of officers

The Board shall elect its officers biennially. Officers shall serve for a period of twenty four months or until their successors take office, and there shall be no limit placed upon the number of terms, consecutive or non-consecutive an individual may serve.

(Adopted effective December 9, 1997)

RULES OF PRACTICE

Sec. 29-32b-5. Petition for hearing

Any person aggrieved by any refusal to issue or renew a permit for selling pistols and revolvers or carrying pistols and revolvers or dangerous weapons or an eligibility

certificate or by any limitation or revocation of such permit or certificate, or by refusal or failure of an issuing authority to furnish an application for such permit, may within ninety days of such action and without prejudice to any other course of action available to him in law or equity appeal to the Board.

(Effective May 1, 1975; amended December 9, 1997)

Sec. 29-32b-6. Form of petition

The petition shall be in writing and shall identify the cause for the appeal. It shall state the name and address of the petitioner and be mailed or delivered as specified in Sec. 29-32b-4 of these Regulations.

(Effective May 1, 1975)

Sec. 29-32b-7. Acknowledgement

After receipt of the appeal the Secretary reserves the right to make a thorough inquiry of the facts of the appeal. When the Secretary determines that the information obtained relative to the appeal is sufficient to permit the conduct of a fair and impartial hearing, he shall set a date for a hearing and give reasonable notice of the time and place of the hearing to the appellant and to the issuing authority.

(Effective May 1, 1975)

Sec. 29-32b-8. Conduct of hearings

Hearings shall be conducted informally in a manner that guarantees fundamental fairness and the right to cross-examination. A verbatim transcript of each hearing shall be kept in a manner determined by discretion of the Secretary of the Board. In presenting his case, each party will be allowed adequate time as determined by the chairman of the Board.

(Effective May 26, 1989)

Sec. 29-32b-9. Attendance at hearing

The Board may compel attendance at hearings by the issuance of a subpoena signed by the Chairman or by the Secretary.

(Effective May 1, 1975)

Sec. 29-32b-10. Failure to appear

Failure of either party to an appeal to appear at a hearing shall be cause in the discretion of the Board for the appeal to be decided against the non-appearing party.

(Effective May 1, 1975)

Sec. 29-32b-11. Postponing, recessing, or rescheduling hearing

The Board may postpone, recess, or reschedule hearings at the discretion of the Secretary; or, if the Board is in session, at the discretion of the Chairman. Either party to an appeal may request the Board to postpone or reschedule a hearing and the Secretary in his discretion may grant or refuse the request. Any such request for postponing or rescheduling a hearing must be received by the Secretary at least one business day prior to the date of the hearing, excluding Saturdays, Sundays, and holidays.

(Effective May 1, 1975)

Sec. 29-32b-12. Decisions of the board

Decisions of the Board shall be by a majority vote of those present and voting. Decisions shall be communicated in writing to the appellant and the issuing authority

within twenty days of rendition, except when the decision is rendered and communicated to the parties at a time when the parties are in the presence of the Board or its Secretary.

(Effective May 26, 1989)

Sec. 29-32b-13. Mandamus

The Board may apply to the Superior Court for a writ of mandamus to enforce its decision if the issuing authority does not comply within ten days of receipt of notice of the decision.

(Effective May 1, 1975)

Sec. 29-32b-14. Appeal

Any person aggrieved by a decision of the Board may appeal such decision in accordance with the provisions of Section 4-183 of the General Statutes, as amended.

(Effective May 26, 1989)

DECLARATORY RULINGS

Sec. 29-32b-15. Declaratory rulings

The Board may, in its discretion, issue declaratory rulings as to the applicability of any statutory provision or of any regulation, decision, or order of the Board. Any person may petition the Board for such a ruling. The petition shall be made in writing, shall identify the particular statutory provision, regulation, decision, or order with respect to which such ruling is requested, shall state the name and address of the petitioner, and shall be mailed or delivered as specified in Sec. 29-32b-4 of these Regulations. Any such petition shall be acknowledged by the Board within thirty days after its receipt by the Board and, unless the petition is denied by the Board, a declaratory ruling in the matter shall be issued as expeditiously as circumstances permit.

(Effective May 1, 1975)

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Weapons

Sec. 29-36m-1. Scope and applicability

These regulations shall apply to the sale, delivery, transfer or possession of any pistol or revolver, time limits for applying for certificates of possession for assault weapons and storage of weapons at correctional facilities.

(a) **Restrictions after October 1, 1995.** On and after October 1, 1995, no person may purchase or receive any pistol or revolver, except an antique pistol or revolver as defined in section 29-36m-2 of these regulations, unless such person:

(1) Holds a valid state permit to carry a pistol or revolver issued pursuant to subsection (b) of section 29-28 of the Connecticut General Statutes; or

(2) Holds a valid permit to sell at retail pistols or revolvers issued pursuant to subsection (a) of section 29-28 of the Connecticut General Statutes; or

(3) Holds a valid eligibility certificate for a pistol or revolver issued by the commissioner pursuant to section 29-36f of the Connecticut General Statutes; or

(4) Is a federal marshal, sheriff, parole officer or peace officer.

(b) **General prohibitions.**

(1) False statements and false information. No person shall make any false statement or give any false information in connection with any purchase, sale, delivery or other transfer of any pistol or revolver.

(2) Persons under twenty-one years. No person shall sell, barter, hire, lend, give, deliver or otherwise transfer to any person under the age of twenty-one (21) years any pistol or revolver.

Exceptions. A pistol or revolver may be temporarily transferred to any person only for the use by such person in target shooting or on a firing or shooting range, provided such use is otherwise permitted by law and is under the immediate supervision of a person eligible to possess a pistol or revolver.

(Adopted effective September 26, 1995)

Sec. 29-36m-2. Definitions

As used in sections 29-36m-1 to 29-36m-22, inclusive:

(a) "Antique pistol or revolver" means any pistol or revolver which was manufactured in or before 1898 and any replica of such pistol or revolver provided such replica is not designed or redesigned for using rimfire or conventional centerfire fixed ammunition except rimfire or conventional centerfire fixed ammunition which is no longer manufactured in the United States and not readily available in the ordinary channel of commercial trade.

(b) "Commissioner" means the commissioner of the department of public safety.

(c) "Convicted" means having a judgment of conviction entered by a court of competent jurisdiction.

(d) "Department" means the department of public safety.

(e) "Firing or shooting range" means any type of facility, indoor or outdoor, where firearms training, practice or competition can be conducted.

(f) "Immediate supervision" means supervision in which the supervisor is in the physical presence of, and has the continuous ability to direct, the individual being supervised.

(g) "Pistol or revolver" means any firearm having a barrel less than twelve inches in length.

(h) "Target shooting" means shooting at an inanimate object that usually has some type of physical reaction or scoring markings.

(Adopted effective September 26, 1995)

Sale, Delivery or Other Transfer of Any Pistol or Revolver

Sec. 29-36m-3. Applications for the sale, delivery or other transfer of a pistol or revolver

(a) **When application required.** No person, firm or corporation shall sell, deliver or otherwise transfer any pistol or revolver except on written application.

Exemptions. The requirements of sections 29-36m-3 to 29-36m-6 of these regulations shall not apply to the following:

(1) Antique pistols or revolvers as defined in section 29-36m-2 of these regulations.

(2) The sale, delivery or other transfer of a pistol or revolver between:

(A) A federally licensed firearm manufacturer and a federally licensed firearm dealer; or

(B) A federally licensed firearm importer and a federally licensed firearm dealer; or

(C) Federally licensed firearm dealers.

(b) **When sale, delivery or other transfer is prohibited.** No person, firm or corporation shall sell, deliver or otherwise transfer any pistol or revolver to any person who:

(1) Has been convicted of a felony or a violation of subsection (c) of section 21a-279, section 53a-58, 53a-61, 53-61a, 53a-62, 53a-63, 53a-96, 53a-175, 53a-176, 53a-178, or 53a-181d of the Connecticut General Statutes; or

(2) Has been discharged from custody within the preceding twenty (20) years after having been found not guilty of a crime by reason of mental disease or defect pursuant to section 53a-13 of the Connecticut General Statutes; or

(3) Has been confined in a hospital for mental illness, as defined in section 17a-495 of the Connecticut General Statutes, within the preceding twelve (12) months by order of a probate court; or

(4) Knows that he is subject to a restraining or protective order issued by a court, after notice and an opportunity to be heard has been provided to such person, in a case involving the use, attempted use or threatened use of physical force against another person; or

(5) Is an alien illegally or unlawfully in the United States.

(c) **Application.**

(1) The application form for the sale, delivery or other transfer of a pistol or revolver shall be on the form prescribed by and obtained from the commissioner.

(2) The application for the sale, delivery or other transfer of a pistol or revolver shall be made in writing, under oath, and shall be completed legibly and in its entirety and in accordance with the directions on the form. Post office boxes shall not be an acceptable form of address.

(d) **Manner of submission.** The person, firm or corporation shall send, by first class mail on the day of receipt of such application, a copy of such application to the following:

(1) To the chief of police department of the municipality wherein the applicant resides or, where there is no chief of police, the first selectman or warden of such municipality; and

(2) To the commissioner.

(e) **Retention period.** The person, firm or corporation receiving the application shall retain such application for a minimum of five (5) years.

(f) **Notification of possession prohibition.** If either the municipal authority or the commissioner determines the existence of any reason that would prohibit the

applicant from possession of a pistol or revolver, he shall send written notification to the person, firm or corporation to whom the application was made.

(Adopted effective September 26, 1995)

Sec. 29-36m-4. Waiting period for sale, delivery or other transfer of a pistol or revolver

(a) No sale, delivery or other transfer of any pistol or revolver prior to October 1, 1995 shall be made until the expiration of two (2) weeks from the date of the mailing of the copies of the application in accordance with section 29-36m-3(d) of these regulations.

(b) The following persons shall be exempt from the two (2) week waiting period:

(1) The holder of a valid state permit to carry a pistol or revolver issued pursuant to subsection (b) of section 29-28 of the Connecticut General Statutes; or

(2) The holder of a valid permit to sell at retail pistols or revolvers issued pursuant to subsection (a) of section 29-28 of the Connecticut General Statutes; or

(3) The holder of a valid eligibility certificate for a pistol or revolver issued by the commissioner pursuant to section 29-36f of the Connecticut General Statutes; or

(4) Any federal marshal, sheriff, parole officer or peace officer.

(c) Prior to the sale, delivery or other transfer of a pistol or revolver to the holder of such permit or certificate, such person, firm or corporation shall verify with the issuing authority that the permit or certificate under which the exemption from the two (2) week waiting period is claimed is still valid and has not been suspended or revoked.

(Adopted effective September 26, 1995)

Sec. 29-36m-5. Manner of sale, delivery or other transfer of a pistol or revolver

(a) **Identification requirement.** No sale, delivery or other transfer of any pistol or revolver shall be made unless the seller, deliverer or transferor either:

(1) Personally knows the purchaser, deliverer or transferee; or

(2) Is provided evidence of the identity of the purchaser, deliverer, or transferee in the form of one of the following:

(A) A valid motor vehicle operator's license; or

(B) An identity card issued pursuant to section 1-1h of the Connecticut General Statutes; or

(C) A valid passport.

(b) **Packaging requirement.** When any pistol or revolver is sold, delivered or otherwise transferred, it shall be:

(1) Enclosed in a package, the paper or wrapping of which is securely fastened;

(2) Unloaded; and

(3) Free of and not contain any gunpowder, or other explosive or any bullet, ball or shell.

(Adopted effective September 26, 1995)

Sec. 29-36m-6. Receipt for sale, delivery or other transfer

(a) **Signature required.** At the time of sale, delivery or other transfer, a receipt for the pistol or revolver shall be signed by the purchaser, deliverer or other transferee.

(b) **Contents of the receipt.** The receipt shall contain the following information:

(1) Name, address and occupation of the purchaser, deliverer or transferee;

(2) The date of sale, delivery or other transfer;

(3) The caliber, make, model and manufacturer's number and a general description of the pistol or revolver;

(4) The purchaser, deliverer or transferee's identification number for one of the following:

(A) Permit to carry pistols or revolvers issued pursuant to subsection (b) of section 29-28 of the Connecticut General Statutes; or

(B) Permit to sell at retail pistols or revolvers issued pursuant to subsection (a) of section 29-28 of the Connecticut General Statutes; or

(C) Eligibility certificate for a pistol or revolver issued pursuant to section 29-36f of the Connecticut General Statutes; and

(5) The authorization number designated for the transfer by the department.

(c) **Distribution of receipt.** The seller, deliverer or other transferor of any pistol or revolver shall distribute copies of the receipt required by section 29-36m-6 of these regulations as follows:

(1) One (1) copy to the purchaser, deliverer or transferee; and

(2) One (1) copy by first class mail within forty-eight (48) hours of the sale, delivery or other transfer to the commissioner and the chief of police, or where there is no chief of police, the warden of the borough or the first selectman of the town where the sale, delivery or other transfer took place.

(Adopted effective September 26, 1995)

Retail Sales of Pistols or Revolvers

Sec. 29-36m-7. Permits for retail sales of pistols or revolvers

(a) **When Permit required.** No person who sells ten (10) or more pistols or revolvers in a calendar year or is a federally-licensed firearm dealer shall advertise, sell, deliver or offer or expose for sale or delivery, or have in his possession with intent to sell or deliver, any pistol or revolver without having a permit therefor.

(b) **Application.**

(1) The application for a permit for the retail sale of a pistol or revolver shall be on the form prescribed and obtained from the commissioner.

(2) The application for a permit for the retail sale of a pistol or revolver shall be made in writing, under oath, and shall be completed legibly and in its entirety and in accordance with the directions on the form. Post office boxes shall not be an acceptable form of address.

(3) The applicant shall provide the following with the completed application form:

(A) Demonstration that he is the holder of a valid eligibility certificate for a pistol or revolver issued pursuant to section 29-36f of the Connecticut General Statutes or a valid permit to carry a pistol or revolver issued pursuant to subsection (b) of section 29-28 of the Connecticut General Statutes; and

(B) Documentation sufficient to establish that local zoning requirements have been met for the location where the sale is to take place; and

Exception. Any person selling or exchanging a pistol or revolver for the enhancement of a personal collection or for a hobby or who sells all or part of his personal collection of pistols or revolvers shall be exempt from the requirements of section 29-36m-7(b) (3) (B) of these regulations.

(C) A permit fee in the amount of \$100.00 for either an original permit or a renewal.

(c) **Manner of submission.** Applications for permits for retail sales of any pistol or revolver shall be submitted to one (1) of the following:

(1) The chief of police; or

(2) Where there is no chief of police, the warden of the borough or the first selectman of the town.

(d) **Confidentiality of information.** The name and address of a person issued a permit to sell at retail a pistol or revolver shall be confidential and shall not be disclosed except in the following instances:

(1) To law enforcement officials acting in the performance of their duties; or
 (2) To the extent necessary to comply with a request made pursuant to section 29-33 of the Connecticut General Statutes for verification that the permit is still valid.

(Adopted effective September 26, 1995)

Carrying a Pistol or Revolver

Sec. 29-36m-8. Permits for carrying a pistol or revolver

(a) **Who may apply.** Persons applying for a permit to carry a pistol or revolver shall either:

(1) Have a bona fide residence or place of business within the jurisdiction of the issuing authority; or

(2) Be a bona fide resident of the United States having a permit or license to carry any firearm issued by the authority of any state or subdivision of the United States.

(b) **Application.**

(1) The application for a permit for carrying a pistol or revolver shall be on the form prescribed by and obtained from the commissioner.

(2) The application for a permit for carrying a pistol or revolver shall be made in writing, under oath, and shall be completed legibly and in its entirety and in accordance with the directions on the form. Post office boxes are not an acceptable form of address.

Exception. No issuing authority may require any sworn member of the department of public safety or an organized local police department to furnish his residence address in a permit application. Each such sworn member who has a permit to carry a pistol or revolver on May 26, 1992, shall be notified by the issuing authority of his right to revise his application to include his business or post office address in lieu of his residence address and shall be permitted to exercise such right to revise his application.

(3) The following shall be submitted with each completed application form:

(A) If applying for a local permit to carry a pistol or revolver, a complete set of fingerprints on forms specified and furnished by the commissioner or, if applying for a state permit to carry a pistol or revolver, the imprint of the right thumbprint on said forms. In either case, the fingerprints shall be taken by personnel at a municipal police department, a state police troop, or any resident state trooper's office.

(B) A color passport-type photograph, two (2") inches wide by two (2") inches high, showing a front view of the head and shoulders of the applicant with a plain, light background, taken within six (6) months prior to the date of the application. This photograph may be taken by personnel at a state police troop or the department of public safety, division of state police, special licensing and firearms unit.

(C) An affidavit signed by an instructor certified by the state, the National Rifle Association or the Department of Environmental Protection stating that the applicant successfully completed a safety or training course in the use of pistols and revolvers. Such statement shall specify that the instructor was so certified at the time he taught

the course and shall include the full name of the applicant, and the date, location and duration of the course.

(D) A permit fee in the amount of \$35.00 for either an original permit or a renewal.

(c) **Manner of submission.** Applications for local permits to carry a pistol or revolver shall be submitted to the chief of police or where there is no chief of police to the warden of the borough or the first selectman of the town. Applications for state permits to carry a pistol or revolver shall be submitted to the commissioner only after the applicant has obtained a local permit to carry a pistol or revolver.

(d) **Confidentiality of information.** The name and address of a person issued a permit to carry a pistol or revolver shall be confidential and shall not be disclosed except in the following instances:

(1) To law enforcement officials acting in the performance of their duties; or

(2) To the extent necessary to comply with a request made pursuant to section 29-33 of the Connecticut General Statutes for verification that the permit is still valid.

(e) **Grounds for denial of permit.** Each application shall be processed and reviewed in accordance with section 29-29 of the Connecticut General Statutes. No permit shall be issued if the applicant:

(1) Is determined to be an unsuitable person; or

(2) Intends to make an unlawful use of any pistol or revolver which he may be permitted to carry; or

(3) Has failed to successfully complete a course approved by the commissioner of public safety in the safety and use of pistols and revolvers including, but not limited to, a safety or training course in the use of pistols and revolvers available to the public offered by a law enforcement agency, a private or public educational institution or a firearms training school utilizing instructors certified by the National Rifle Association or the Department of Environmental Protection or a safety or training course in the use of pistols or revolvers conducted by an instructor certified by the state or the National Rifle Association; or

(4) Has been convicted of a felony or a violation of subsection (c) of section 21a-279, section 53a-58, 53a-61, 53-61a, 53a-62, 53a-63, 53a-96, 53a-175, 53a-176, 53a-178, or 53a-181d of the Connecticut General Statutes; or

(5) Has been discharged from custody within the preceding twenty (20) years after having been found not guilty of a crime by reason of mental disease or defect pursuant to section 53a-13 of the Connecticut General Statutes; or

(6) Has been confined in a hospital for mental illness, as defined in section 17a-495 of the Connecticut General Statutes, within the preceding twelve (12) months by order of a probate court; or

(7) Knows that he is subject to a restraining or protective order issued by a court, after notice and an opportunity to be heard has been provided to such person, in a case involving the use, attempted use or threatened use of physical force against another person; or

(8) Is an alien illegally or unlawfully in the United States.

(f) **Issuance of permit.** Each permit to carry any pistol or revolver shall be issued in triplicate. Copies of said permit shall be distributed as follows:

(1) In all cases, one (1) copy to the person to whom the permit is issued, and if a state permit, said copy shall be laminated and contain a full-face photograph of such permittee; and

(2) (A) If issued by the commissioner, one (1) copy to the local authority issuing the local permit and one to be retained by the commissioner; or

(B) If issued by the local authority, one (1) copy to the commissioner and one copy to be retained by the local authority.

(Adopted effective September 26, 1995)

Sec. 29-36m-9. Notification of address change

Any person holding a permit to carry a pistol or revolver shall notify the issuing authority within two (2) business days of any change of his address. Such notification shall be in writing and shall state the permittee's old address and his new address.

(Adopted effective September 26, 1995)

Sec. 29-36m-10. Revocation of permit

Any permit for the carrying of any pistol or revolver may be revoked by the issuing authority for cause.

(a) **Conditions for mandatory revocation.** Any permit for the carrying of any pistol or revolver shall be revoked upon the occurrence of any of the following:

- (1) Upon conviction of the holder of such permit of a felony;
- (2) Upon conviction of the holder of any of the following misdemeanors: violation of subsection (c) of section 21a-279, section 53a-58, 53a-61, 53-61a, 53a-62, 53a-63, 53a-96, 53a-175, 53a-176, 53a-178, or 53a-181d of the Connecticut General Statutes; or
- (3) Upon the occurrence of any event which would have disqualified the holder from being issued the original permit or the renewal.

(b) **Notification of revocation and surrender of permit.**

(1) Upon revocation of any permit, the revoking authority shall notify the person whose permit is revoked in writing by first class mail return receipt requested. Within five (5) days of the receipt of such notification, the person whose permit is revoked shall turn the permit in to the issuing authority.

(2) Upon revocation of any permit by the commissioner, said commissioner shall notify the local authority in writing of such revocation.

(3) Upon revocation of any permit by the local authority, said local authority shall notify the commissioner in writing of such revocation.

(Adopted effective September 26, 1995)

Eligibility Certificates

Sec. 29-36m-11. Applications for eligibility certificates

(a) **Who may apply.** Any person who is twenty-one (21) years of age or older may apply to the commissioner for an eligibility certificate for a pistol or revolver.

(b) **Application procedure.** The procedure for applying for an eligibility certificate shall be as follows:

(1) **Application form.** The applicant shall contact the department of public safety, division of state police, special licensing and firearms unit, to obtain the application for an eligibility certificate.

(2) Upon receipt of the request for an application for an eligibility certificate, the division of state police shall provide the applicant with the authorized department of public safety, division of state police, application form.

(3) The application for an eligibility certificate shall be made in writing, under oath, and shall be completed legibly and in its entirety and in accordance with the directions on the form. Post office boxes shall not be an acceptable form of address.

(4) The following shall be submitted with each completed application form:

(A) A complete set of fingerprints on forms specified and furnished by the commissioner, which fingerprints shall be taken by personnel at a municipal police department, a state police troop, or any resident state trooper's office.

(B) A color passport-type photograph, two inches (2") wide by two inches (2") high, showing a front view of the head and shoulders of the applicant with a plain, light background, taken within six (6) months prior to the date of the application. This photograph may be taken by personnel at a state police troop or the department of public safety, division of state police, special licensing and firearms unit.

(C) An affidavit signed by an instructor certified by the state, the National Rifle Association or the Department of Environmental Protection stating that the applicant successfully completed a safety or training course in the use of pistols and revolvers. Such statement shall specify that the instructor was so certified at the time he taught the course and shall include the full name of the applicant, and the date, location and duration of the course.

(D) A fee in the amount of \$35.00 for either an original certificate or a renewal.

(c) **Application review.** Upon receipt of an application for an eligibility certificate, the department of public safety, division of state police, special licensing and firearms unit, shall:

(1) Review the application for completeness;

(2) Complete national and state criminal history checks on the applicant; and

(3) Within sixty (60) days of the receipt of the national criminal history records check from the Federal Bureau of Investigation, either approve the application and issue the eligibility certificate or deny the application and notify the applicant in writing of the reason(s) for the denial of the application.

(d) **Time for approval.** With respect to all applications for eligibility certificates filed on or before July 1, 1995, and within ninety (90) days of the filing of an application for an eligibility certificate filed after July 1, 1995, the commissioner shall either:

(1) Approve the application and issue the eligibility certificate; or

(2) Issue a temporary eligibility certificate; or

(3) Deny the application and notify the applicant in writing of the reason(s) for denial.

(e) **Grounds for denial of certificate.** No eligibility certificate shall be issued if the applicant:

(1) Has failed to successfully complete a course approved by the commissioner of public safety in the safety and use of pistols and revolvers including, but not limited to a safety or training course in the use of pistols and revolvers available to the public offered by a law enforcement agency, a private or public educational institution or a firearms training school utilizing instructors certified by the National Rifle Association or the Department of Environmental Protection or a safety or training course in the use of pistols or revolvers conducted by an instructor certified by the state or the National Rifle Association; or

(2) Has been convicted of a felony or a violation of subsection (c) of section 21a-279, section 53a-58, 53a-61, 53-61a, 53a-62, 53a-63, 53a-96, 53a-175, 53a-176, 53a-178, or 53a-181d of the Connecticut General Statutes; or

(3) Has been discharged from custody within the preceding twenty (20) years after having been found not guilty of a crime by reason of mental disease or defect pursuant to section 53a-13 of the Connecticut General Statutes; or

(4) Has been confined in a hospital for mental illness, as defined in section 17a-495 of the Connecticut General Statutes, within the preceding twelve (12) months by order of a probate court; or

(5) Knows that he is subject to a restraining or protective order issued by a court, after notice and an opportunity to be heard has been provided to such person, in a case involving the use, attempted use or threatened use of physical force against another person; or

(6) Is an alien illegally or unlawfully in the United States.

(Adopted effective September 26, 1995)

Sec. 29-36m-12. Temporary eligibility certificates

Temporary eligibility certificates shall be valid until such time as the commissioner either approves or denies the application.

(Adopted effective September 26, 1995)

Sec. 29-36m-13. Notification of change of address

A person holding an eligibility certificate shall notify the commissioner in writing within two (2) business days of any change of his address. The notification shall include his old address and his new address.

(Adopted effective September 26, 1995)

Sec. 29-36m-14. Expiration of certificate

(a) The eligibility certificate shall expire five (5) years from the date of issuance. For renewals, the eligibility certificate shall expire five (5) years after the expiration date of the certificate being renewed. An eligibility certificate shall remain valid for a period of ninety (90) days from the date of expiration, except when such certificate has been revoked or for which revocation is pending.

(b) **Notice of expiration of certificate.** The commissioner shall send a notice of the expiration of an eligibility certificate to the certificate holder, by first class mail, at the address shown in accordance with the records of the commissioner, not less than ninety (90) days prior to the expiration of the certificate. Such notification shall be accompanied by an application form for the renewal of the certificate.

(c) **Renewal applications.** Applications for renewal shall be made not earlier than thirty-one (31) days prior, and not later than thirty-one (31) days after, the expiration of the certificate being renewed.

(Adopted effective September 26, 1995)

Sec. 29-36m-15. Revocation of eligibility certificate

Any eligibility certificate shall be revoked by the commissioner upon the occurrence of any event which would have disqualified the holder from being issued the certificate. The commissioner shall notify the person whose eligibility certificate is being revoked in writing by first class mail return receipt requested and such person shall surrender such certificate to the commissioner within five (5) days of the receipt of the notification of revocation.

(Adopted effective September 26, 1995)

Transfer of Pistol or Revolver Upon Ineligibility

Sec. 29-36m-16. Transfer procedure upon ineligibility

Within two (2) business days after the occurrence of any event that makes a person ineligible to possess a pistol or revolver, such person shall either:

(a) Deliver or surrender any and all pistol(s) and/or revolver(s) which he then possesses to a state police barracks (other than Troop W).

(1) The pistol(s) and/or revolver(s) shall be unloaded and enclosed in a package, the paper or wrapping of which shall be securely fastened in the same

manner as is required for the sale, delivery or other transfer of a pistol or revolver set forth in section 29-36m-5(b) of these regulations.

(2) Upon receipt of the pistol(s) and/or revolver(s) at a state police barracks, the following shall occur:

(A) An incident number shall be drawn;

(B) DPS Form 293-C shall be completed and one (1) copy shall be provided to the ineligible person; and

(C) The pistol(s) and/or revolver(s) shall be properly secured and stored in the Troop evidence room.

(b) Transfer the pistol(s) and/or revolver(s) in accordance with sections 29-36m-3 to 29-36m-6, inclusive, of these regulations to any person eligible to possess a pistol or revolver.

(Adopted effective September 26, 1995)

Sec. 29-36m-17. Transfer after surrender or delivery

At any time up to one (1) year after the surrender or delivery of a pistol or revolver to a state police barracks as provided for in section 29-36m-16 of these regulations, the ineligible person or his legal representative may transfer such pistols or revolvers to a person eligible to possess a pistol or revolver provided all of the following requirements are met:

(a) The ineligible person, or his legal representative, and the proposed transferee shall notify, in writing, by first class mail return receipt requested, the department of public safety, special licensing and firearms unit of the request for transfer of possession of such pistol(s) and/or revolver(s). Such notification shall identify the state police barracks where the pistol(s) and/or revolver(s) were surrendered or delivered.

(b) Within ten (10) days of the receipt of the written notification, the department of public safety, division of state police, special licensing and firearms unit shall arrange for an appointment during the weekday business hours of 9:00 a.m. to 4:00 p.m. for the transfer of the pistol(s) and/or revolver(s).

(c) The transfer between the ineligible person and the proposed transferee shall be in accordance with sections 29-36m-3 to 29-36m-6, inclusive, of these regulations.

(d) Both the ineligible person, or his legal representative, and the proposed transferee shall appear at the location designated by the special licensing and firearms unit at the time of the scheduled appointment.

(e) The proposed transferee shall produce two (2) forms of valid photographic identification to the department of public safety, division of state police personnel and have obtained an authorization number from the department.

(f) A copy of the Sale, Delivery or Transfer form shall be made.

(g) All forms shall be checked for completeness and accuracy by department of public safety division of state police personnel prior to the transfer.

(Adopted effective September 26, 1995)

Sec. 29-36m-18. Return of pistol or revolver after court order

(a) Any person who, having become ineligible by reason of a restraining or protective order, is no longer subject to that order by reason of subsequent court order, may seek return of any pistol or revolver he, or his legal representative, surrendered or delivered to a state police barracks upon the occurrence of that ineligibility event.

(b) Such person shall bring to the department of public safety, division of state police, special licensing and firearms unit, during the weekday hours of 9:00 a.m.

to 4:00 p.m., a certified copy of the court order rescinding the restraining or protective order.

(c) Such certified copy of the court order shall be filed with the proper incident report.

(d) The pistol(s) and/or revolver(s) shall be returned after completion and notarization of the form for return of firearms.

(Adopted effective September 26, 1995)

Sec. 29-36m-19. Disposition of pistols and/or revolvers

If, at the end of one (1) year from the date any pistol or revolver is surrendered or delivered to a state police barracks, such pistol or revolver is not transferred in accordance with section 29-36m-17 of these regulations or returned in accordance with section 29-36m-18 of these regulations, an investigating trooper at the state police barracks shall do the following:

(a) Send written notification, via certified mail return receipt requested, to the ineligible person at the last address shown for the ineligible person according to the records of the department stating the date on which the pistol(s) and/or revolver(s) are to be disposed.

(b) Notify the individual designated by the special licensing and firearms unit of the department of the date that the pistol(s) and/or revolver(s) may be picked up.

(Adopted effective September 26, 1995)

Certificates of Possession for Assault Weapons

Sec. 29-36m-20. Time limit for application

Any person who lawfully possesses an assault weapon prior to October 1, 1993, shall apply to the department of public safety by October 1, 1994 for a certificate of possession in the manner provided for in the regulations adopted by the department of public safety concerning applications for and the issuance of certificates of possession for assault weapons.

Exception. When a person lawfully possesses an assault weapon and is a member of the military or naval forces of this state or of the United States, the following shall apply:

(a) If such person is unable to apply for a certificate of possession by October 1, 1994 because he or she was on official duty outside of this state, such person shall apply for a certificate of possession within ninety (90) days of returning to the state.

(b) If such person has been transferred into the state after October 1, 1994, such person may apply to the department of public safety for a certificate of possession within ninety (90) days of arriving in the state.

(Adopted effective September 26, 1995)

Appeal to the Board of Firearms Permit Examiners

Sec. 29-36m-21. Right of appeal

Any person aggrieved by (a) any refusal to issue or renew a permit to carry a pistol or revolver, a permit to sell at retail any pistol or revolver, an eligibility certificate for a pistol or revolver or a permit to carry a dangerous weapon; (b) any limitation or revocation of a permit or certificate issued under section 29-28, 29-36f or 53-206 of the Connecticut General Statutes and/or (c) a refusal or failure of any issuing authority to furnish a permit application form may appeal to the board

of firearms permit examiners. Such appeal shall be taken within ninety (90) days after receipt of notice of the permit or certificate refusal, permit or certificate limitation or revocation, or refusal or failure to provide an application.

(Adopted effective September 26, 1995)

Weapons Storage at Correctional Facilities

Sec. 29-36m-22. General requirement

Any firearm, ammunition or deadly weapon owned by the department of correction shall be stored only on the grounds of a correctional facility with a security rating of level three or higher and in a contained area, such as a room, lock box or cabinet, that is situated so that it is inaccessible to inmates or the public and secured by means such as a lock or key that reasonably prevents access by other than authorized personnel. Access and egress to and from such contained area shall be recorded in a log with the name and signature of the person entering such contained area, the date, time of entry, the purpose for entry and time of exit.

(Adopted effective September 26, 1995)

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Repealed, November 30, 1971.

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**Use of Chemicals in Removing Soot from Boilers,
Furnaces, Chimneys and Flues**

(See § 21a-12)

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Transferred, July 27, 1984.

Correlated Table

<i>Former Section Number</i>	<i>New Section Number</i>
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Motion Picture Theaters

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Repealed, December 29, 1989.

Secs. 29-109-1a—29-109-72a.

Repealed, July 25, 1997.

Moving Picture Theaters

Sec. 29-109-1b. The Connecticut moving picture theater code

Regulations of the Department of Public Safety Sections 29-109-1b to 29-109-6b, inclusive, shall be known as the Connecticut Moving Picture Theater Code. Sections 29-109-1b to 29-109-6b, inclusive, shall be referred to as “this Code” or “the Code” and may be cited as such, and are adopted under the authority of Connecticut General Statutes Section 29-109.

(Adopted effective July 25, 1997)

Sec. 29-109-2b. Scope, applicability, and administration

(a) Scope.

(1) This Code shall apply to all buildings or portions of buildings designed, constructed, equipped and regularly used for the primary purpose of moving picture exhibition and establishes the requirements for the issuance of certificates of approval by the Commissioner of Public Safety.

(2) This Code shall apply to both new and existing moving picture theaters.

(b) Authority Having Jurisdiction.

The Commissioner of Public Safety is the “Authority Having Jurisdiction” regarding the proper administration, application, interpretation, and modification of the requirements of this Code.

(c) Variations, Exemptions, or Modifications.

(1) The Commissioner of Public Safety may grant variations or exemptions from, or approve equivalent or alternate compliance with, particular provisions of this Code where strict compliance with such provisions would entail practical difficulty or unnecessary hardship, or is otherwise adjudged unwarranted, provided any such variation, exemption or approved equivalent or alternate compliance shall, in the opinion of the Commissioner of Public Safety, secure the public safety.

(2) Applications for variations, exemptions or alternate compliance shall be made on forms provided by the Commissioner of Public Safety.

(Adopted effective July 25, 1997)

Sec. 29-109-3b. Definitions

As used in Sections 29-109-1b to 29-109-6b, inclusive:

(1) “Auditorium” means that portion of a moving picture theater which provides for audience seating;

(2) “Auditorium Certificate” means the annual certificate of approval for the auditorium issued by the Commissioner of Public Safety in accordance with the provisions of Section 29-109 of the Connecticut General Statutes showing the number of persons who may be admitted to such premises at any one time;

(3) “Commissioner” means the Commissioner of Public Safety who, under the authority of Section 29-291 of the Connecticut General Statutes, also serves as State Fire Marshal;

(4) “Moving Picture Projector” means film or video projectors or spotlights utilizing light sources that produce particulate matter or toxic gases or light sources that produce hazardous radiation without protective shielding for the transmission of light onto a screen but does not include enclosed projectors equipped with incandescent lamps for projection illumination;

(5) “Moving Picture Theater” means a building or portion of a building designed and constructed for the primary purpose of exhibiting moving pictures by means of a moving picture projector;

(6) “Projection Booth” means the room or area housing the moving picture projector for the transmission of light onto a screen, curtain or stage;

(7) “Projection Booth Certificate” means the annual certificate of approval for the projection room or area issued by the Commissioner of Public Safety in accordance with the provisions of Section 29-109 of the Connecticut General Statutes authorizing the use of such room or area; and

(8) “Theater Manager” means the person responsible for the operation of the moving picture theater and for compliance with this Code.

(Adopted effective July 25, 1997)

Sec. 29-109-4b. Certificates of approval

(a) Auditorium certificate.

(1) A certificate of approval issued by the Commissioner of Public Safety shall be obtained for each auditorium in a moving picture theater prior to being occupied by the public.

(2) No such certificate of approval shall be issued until it has been determined by the Commissioner that the premises are in substantial compliance with the requirements of this Code and the minimum requirements of the Connecticut Fire Safety Code, adopted pursuant to Section 29-292 of the Connecticut General Statutes.

(3) The certificate of approval for the auditorium showing the number of persons that may be admitted to such premises at any one time shall be posted in a conspicuous place in the theater office.

(b) Projection booth certificate.

(1) A certificate of approval issued by the Commissioner of Public Safety for each projection room or area shall be required prior to the moving picture theater being occupied by the public.

(2) No such certificate of approval shall be issued until it has been determined by the Commissioner that the premises are in substantial compliance with the requirements of this Code and the minimum requirements of the Connecticut Fire Safety Code, adopted pursuant to Section 29-292 of the Connecticut General Statutes.

(3) The certificate of approval for the projection booth shall be posted in a conspicuous place within the projection booth.

(Adopted effective July 25, 1997)

Sec. 29-109-5b. Operation of a moving picture theater

(a) The theater manager shall make or cause to be made by a responsible employee an inspection of the theater premises each day that the theater is to be occupied prior to occupancy by the public to ensure that each stairway, door, and other exit facility is maintained for emergency use. Such inspection shall be conducted with reasonable diligence.

(b) In a moving picture theater where a fire alarm system is not required by the Connecticut Fire Safety Code, the theater manager or any responsible employee

designated by the theater manager shall be responsible for initiating the required emergency actions upon the discovery of a fire or other emergency condition.

(c) Upon the initiation of any fire alarm system required by the Connecticut Fire Safety Code, the theater manager or any responsible employee designated by the theater manager shall initiate the required emergency actions.

(d) The emergency actions required in subsection (b) and (c) include:

(1) Activating or causing the activation of the normal illumination of the auditorium(s).

(2) Shutting down or causing the shut down of the moving picture projector(s).

(3) Promptly notifying theater occupants of the emergency.

(e) The theater manager of a moving picture theater shall immediately notify the Commissioner of Public Safety by telephone during normal business hours at 860-685-8350 or at other times, the State Police Communications Center at 800-842-0200, of any fire or other incident or accident which results in physical damage to the theater or its contents.

(Adopted effective July 25, 1997)

Sec. 29-109-6b. Nitrocellulose moving picture film

No person may store or use any moving picture film made of nitrocellulose or any other highly combustible material in a moving picture theater.

(Adopted effective July 25, 1997)

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Repealed, March 2, 1998.

Connecticut Mechanical Amusement Ride and Device Regulations

Sec. 29-136-1a. The Connecticut mechanical amusement ride and device regulations: Purpose and applicability

(a) Regulations of the Department of Public Safety Sections 29-136-1a to 29-136-11a, inclusive, shall be known as the Connecticut Mechanical Amusement Ride and Device Regulations.

(b) Nothing in Sections 29-136-1a to 29-136-11a, inclusive, shall be intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by Sections 29-136-1a to 29-136-11a, inclusive, provided that technical documentation is submitted to the authority having jurisdiction to demonstrate equivalency and provided that the system, method, or device shall be approved for its intended purpose.

(Adopted, effective March 2, 1998)

Sec. 29-136-2a. Authority having jurisdiction

As used in Sections 29-136-1a to 29-136-11a, inclusive, “the authority having jurisdiction” means the Commissioner of Public Safety. The Commissioner of Public Safety is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within Sections 29-136-1a to 29-136-11a, inclusive.

(Adopted, effective March 2, 1998)

Sec. 29-136-3a. Definitions

As used in Sections 29-136-1a to 29-136-11a, inclusive:

(1) “Amusement” means any circus or carnival presented in the open, including a place where one or more mechanical amusement rides or devices capable of accommodating five or more persons are presented for amusement or entertainment purposes, and any circus, carnival or other portable show or exhibition presented under any single tent, air-supported plastic or fabric or other portable shelter, and involving the assembly of 100 or more persons.

(2) “Carnival” means a transient enterprise offering amusement and entertainment for the public in, upon or by means of mechanical amusement rides or devices.

(3) “Concession Booth” means a structure or enclosure used at a fair, carnival or park from which amusements are offered to the public.

(4) “E-1” means an individual with an unlimited electrical contractor’s license issued by the Connecticut Department of Consumer Protection in accordance with the provisions of Section 20-332 of the Connecticut General Statutes.

(5) “Engineer” means a Connecticut licensed professional engineer with civil, electrical, structural or mechanical disciplines and having knowledge of mechanical amusement rides and devices, who has been approved by the Commissioner of Public Safety to inspect and determine the safety of such rides and devices.

(6) “Fair” means an enterprise principally devoted to the exhibition of products of agriculture or industry, to which the operation of mechanical amusement rides and devices or concession booths is an adjunct.

(7) “Homemade Ride or Device” means a mechanical amusement ride or device that was not manufactured by a recognized manufacturer or any mechanical amusement ride or device which has been substantially altered without the approval of the manufacturer.

(8) “Inspection” means the physical examination of a mechanical amusement ride or device and the grounds and area around such ride or device, made by the Commissioner of Public Safety or his designee.

(9) “Inspector” means a Connecticut licensed professional engineer, an electrical official with an E-1 electrical rating, municipal building official, or the Commissioner of Public Safety or his designee.

(10) “Kiddie Ride” means a mechanical amusement ride or device designed primarily for use by children 12 years of age and under.

(11) “Major Alteration” means a change in the type, capacity, structure, electrical or hydraulic systems, or mechanism of a mechanical amusement ride or device. This includes any change that would require approval of the manufacturer or an engineer.

(12) “Major Ride” means a mechanical amusement ride or device designed to carry adults and children in or on a vehicle suitable for conveying persons.

(13) “Mechanical Amusement Ride or Device” means any device or system requiring the supervision or control of an operator, designed and presented for entertainment, excitement or pleasure by physically conveying five or more persons, or providing a walkway for five or more persons to move themselves along, around or over a course in any direction as a form of amusement. This definition shall not include the following:

(A) any non-electrical, non-mechanical playground equipment including, but not limited to, swings, seesaws, spring mounted animal features, rider propelled merry-go-rounds, climbers, playground slides, trampolines, and physical fitness devices; or

(B) any permanently installed special amusement building designed and constructed in accordance with the Connecticut Fire Safety Code and the Connecticut State Building Code.

(14) “Owner” means the proprietor, operator, agent or possessor of such amusement.

(15) “Repair” means to restore a mechanical amusement ride or device to a condition equal to or better than the original design specifications.

(16) “Ride Control Access System” means a device, barrier or mechanism that prohibits unauthorized activation of the mechanical amusement ride or device.

(17) “Ride File Jacket” means a file concerning an individual mechanical amusement ride or device which contains nondestructive test reports on the testing firm or corporation’s official letterhead; the name of the ride or device; the manufacturer and date of manufacture; maintenance records; records of any alterations; serial number; daily check lists and engineer’s reports.

(18) “Ride or Device Manufacturer” means any firm or corporation that manufactures mechanical amusement rides or devices, including homemade rides or devices.

(19) “Ride or Device Operator” means the person in charge of a mechanical amusement ride or device who caused such ride or device to operate, having direct control of the starting, stopping, or speed of a mechanical amusement ride or device.

(20) “Special Amusement Building” means any building that is temporary, permanent, or mobile, and containing a device or system that conveys passengers or provides a walkway along, around, or over a course in any direction as a form of amusement, and arranged so that the egress path is not readily apparent due to

visual or audio distractions or an intentionally confounded egress path, or is not readily available due to the mode of conveyance through the building or structure.

(21) “Stop Order” means any order issued by an inspector for the temporary cessation of a mechanical amusement ride or device.

(Adopted, effective March 2, 1998)

Sec. 29-136-4a. Ride and device manufacturers

(a) All mechanical amusement rides or devices manufactured after January 1, 1993 shall conform to the standards set forth in the fourth edition of the American Society for Testing and Materials (ASTM) Standards on Amusement Rides and Devices (1992).

(b) Homemade rides or devices shall be built to conform to or exceed the standards set forth in the fourth edition of the ASTM Standards on Amusement Rides and Devices (1992), and shall be certified by an engineer approved by the Commissioner of Public Safety as meeting such standard.

(c) The standards promulgated by the American Society for Testing and Materials (ASTM) are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959; telephone number, (610) 832-9500.

(Adopted, effective March 2, 1998)

Sec. 29-136-5a. Annual inspection and certification of mechanical amusement rides and devices by approved engineers

(a) No mechanical amusement ride or device shall be operated in this state unless it is annually inspected by an engineer approved by the Commissioner of Public Safety, and the engineer has certified to the Commissioner of Public Safety that:

(1) in his or her judgment, the mechanical amusement ride or device conforms to or exceeds the standards set forth in the fourth edition of the ASTM Standards on Amusement Rides and Devices (1992), and is reasonably safe for public use; or

(2) in his or her judgment, the mechanical amusement ride or device is not reasonably safe for public use, and the reasons therefor.

(b) The engineer shall inspect a mechanical amusement ride or device in a disassembled configuration prior to the initial use in Connecticut each year and as often as the Commissioner of Public Safety shall direct. If the mechanical amusement ride or device is homemade or altered beyond manufacturer acceptance, or the manufacturer fails to make recommendations as to the disassembled configuration, the engineer shall recommend what is deemed to be a disassembled configuration for the purpose of the engineer's inspection. In all cases, the mechanical amusement ride or device shall be disassembled to the extent necessary so that its components may be viewed.

(c) The engineer, during the annual inspection, shall determine:

(1) if the mechanical amusement ride or device is a product of a registered ride or device manufacturer;

(2) if the mechanical amusement ride or device is homemade or so altered that the manufacturer will no longer accept it as its product;

(3) if the mechanical amusement ride or device is required to undergo nondestructive testing, and the extent of such testing; and

(4) if the ride file jacket is complete and contains current information.

(d) The engineer's certification to the Commissioner of Public Safety shall state that the inspection of the individual mechanical amusement ride or device was conducted while the mechanical amusement ride or device was in a disassembled

configuration; that the mechanical amusement ride or device components were found to be structurally sound, free of cracks, bends, breaks and other defects; that the mechanical amusement ride or device was subjected to nondestructive testing where required (a copy of the test firm's report of such testing shall be attached to the engineer's report); and that the mechanical amusement ride or device did not require further repairs of any type prior to its assembly and operation; or that the mechanical amusement ride or device was unsafe. If the mechanical amusement ride or device is determined to be unsafe, the engineer's certification shall list the reasons for such determination. If a mechanical amusement ride or device is altered, the owner of such ride or device shall inform the engineer of the extent of the work. The engineer's report to the Commissioner of Public Safety shall note any alterations and evaluate them for conformance with applicable standards.

(e) **Nondestructive testing.**

(1) Nondestructive testing shall be conducted in accordance with the manufacturer's instructions.

(2) If the ride or device manufacturer has no requirements pertaining to nondestructive testing, or if the mechanical amusement ride or device is homemade or has been so altered that the manufacturer will no longer accept it as its product, an engineer approved by the Commissioner of Public Safety shall determine the areas of the mechanical amusement ride or device to be tested, the method of nondestructive testing to be used, and the frequency of such testing.

(3) Testing shall be conducted by an independent and qualified testing agency in accordance with the standards set forth in the fourth edition of the ASTM Standards on Amusement Rides and Devices (1996). Testing by a mechanical amusement ride or device owner or manager shall not be acceptable.

(f) **Aquatic rides and devices.**

All manufacturer safety requirements pertaining to the operation of the mechanical amusement ride or device shall be followed. The Commissioner of Public Safety may set additional safety requirements in the interest of life safety.

(Adopted, effective March 2, 1998)

Sec. 29-136-6a. General set up requirements for mechanical amusement rides and devices

(a) Blocking, when used, shall be placed on a sound foundation. Concrete blocks, hollow blocks, hollow boxes or other hollow core items shall not be used for this purpose. Cribbing and crossing of blocks is required when stacking two or more blocks, or at the discretion of the inspector. The manufacturer's or engineer's recommendations shall be followed when available.

(b) The passenger carrier and safety restraints shall be in good, serviceable condition.

(c) All pins, bolts, and other fasteners shall be safely locked with snap rings, cotter keys, or other types of locking devices to keep the pins, bolts, and other fasteners in their proper place. The pins and bolts shall be in place and of proper size and type, as specified by the manufacturer or engineer. No nails, screws, wire, or other unauthorized items shall be used as fasteners.

(d) The mechanical amusement ride or device shall be operated within its designed revolutions per minute rating with a balanced load. Mechanical amusement rides or devices shall not be overloaded. In the interest of public safety, the Commissioner of Public Safety may order the reduction of the revolutions per minute allowed on a mechanical amusement ride or device.

(e) Mechanical amusement rides or devices using gasoline or diesel-fueled engines shall not be fueled while the engine is running or passengers are on such ride or device.

(f) Moving or hot parts including, but not limited to, belts, chains, gears, shafts, knuckle joints, and exhaust pipes that pose risk of injury to the public shall be effectively guarded to prevent contact.

(g) All electrical junction boxes shall be locked or sealed, and properly identified as such, and have proper fencing around them.

(h) All mechanical amusement rides or devices shall be provided with a fully charged, currently inspected and approved fire extinguisher for Class A, B and C fires.

(i) Major rides or devices shall be set up a minimum of 12 feet apart. Kiddie rides shall be spaced a minimum of 6 feet apart. The measurement shall be taken from the outer edges of the moving parts of each mechanical amusement ride or device or its maximum extension.

(Adopted, effective March 2, 1998)

Sec. 29-136-7a. Responsibilities of mechanical amusement ride and device owners and operators

(a) The ride or device operator shall be at least 18 years of age and trained in normal and emergency shut-down procedures of the mechanical amusement ride or device. The operator shall be properly trained, familiar with and adequately supervised to ensure the safe operation of the mechanical amusement ride or device.

(b) The ride or device operator shall not be under the influence of alcohol, drugs, or both, while performing operator duties.

(c) The ride or device operator shall follow all manufacturer safety requirements and such additional safety requirements as may be set by the Commissioner of Public Safety in the interest of life safety.

(d) No ride or device operator shall jam, tamper with or alter any ride or device or device controls.

(Adopted, effective March 2, 1998)

Sec. 29-136-8a. Investigations and inspections: Applications for a license to conduct an amusement

(a) Upon receipt of an application for an amusement license for a mechanical amusement ride or device subject to Sections 29-136-1a to 29-136-11a, inclusive, and the provisions of Chapter 532 of the Connecticut General Statutes, the Commissioner of Public Safety may enter upon and investigate and inspect the lands, buildings and locations where mechanical amusement rides or devices are being set up or located for the purpose of determining whether such rides or devices are reasonably safe from fire and casualty hazards.

(b) No mechanical amusement ride or device shall be placed in service unless it bears an inspection registration seal issued by the Commissioner of Public Safety. The inspection registration seal shall contain:

- (1) the name of the owner of the mechanical amusement ride or device;
- (2) the serial number of the mechanical amusement ride or device;
- (3) the year of manufacture;
- (4) the identification number established by the Commissioner of Public Safety;
- (5) the name of the manufacturer;
- (6) the current yearly inspection sticker; and
- (7) the name of the mechanical amusement ride or device.

(c) In addition to the inspection conducted in accordance with Section 29-136-5a, a mechanical amusement ride or device shall be inspected in an assembled configuration for the purposes of this section.

(d) The general public shall not be allowed to attend or gain access to any mechanical amusement ride or device until the amusement license has been issued by the Commissioner of Public Safety.

(e) The investigation and inspection by the Commissioner of Public Safety shall include, but shall not be limited to, the following:

(1) all passenger-carrying vehicles, including restraint devices, latches, sharp edges, empty light sockets, seats and slide surfaces;

(2) the grounds of the amusement area, exits, entrances, ramps, stairways, and passageways, including lighting for the night season;

(3) communications equipment, if the mechanical amusement ride or device is so equipped, including electric eye operation for safe movement of vehicles;

(4) brake operations, in accordance with the manufacturer's recommendations;

(5) fences, guards, steps and wire rope, structural steel, electrical wires and blocking;

(6) a minimum of one full cycle operation of the ride or device;

(7) the ownership of such ride or device, together with any lease agreements.

(f) The Commissioner of Public Safety may retain one or more outside consultants with specialized knowledge and experience in any circumstance that a mechanical amusement ride or device is of such a size, configuration, or so equipped that a specialist is needed to assure that such ride or device is reasonably safe for human use.

(g) A stop order may be issued whenever a mechanical amusement ride or device is found not to be in compliance with Sections 29-136-1a to 29-136-11a, inclusive, or Chapter 532 of the Connecticut General Statutes.

(Adopted, effective March 2, 1998)

Sec. 29-136-9a. Mechanical amusement ride and device specifications and owner obligations

(a) If a mechanical amusement ride or device is materially rebuilt or so modified as to change its original action, it shall be identified by a different name or identification number or both and be inspected by an approved engineer.

(b) Repairs shall be carried out in accordance with the manufacturer's or engineer's instructions and shall utilize replacement parts which meet or exceed original equipment specifications.

(c) It shall be the responsibility of the mechanical amusement ride or device owner to obtain all safety alert or maintenance bulletins and strictly adhere to the manufacturer's or engineer's requirements.

(d) The owner shall maintain a current ride file jacket.

(e) All major alterations or other modifications shall be submitted in writing to the manufacturer or an approved engineer for review. The manufacturer's or engineer's comments shall be kept in the ride file jacket.

(f) The assembly and disassembly of a mechanical amusement ride or device shall be performed by or under the immediate supervision of a person experienced in the proper performance of such work with respect to such ride or device.

(g) Parts shall be properly aligned and shall not be bent, distorted, cut, omitted or otherwise deformed to force them into place. Parts requiring lubrication shall be lubricated in the course of assembly in compliance with the manufacturer's or engineer's recommendations. Fastening and locking devices such as bolts, cap screws, cotter pins and lock washers shall be installed where required. Nuts and

lock nuts shall be installed to the recommendations of the manufacturer or engineer. Welding of parts upon which safe operation depends shall be done by welders certified in accordance with the requirements of the American Welding Society. Any work performed by a welder shall be approved by the manufacturer or engineer and noted in the mechanical amusement ride or device record and filed in the ride file jacket.

(h) Tools and equipment used in the assembly and disassembly of mechanical amusement rides or devices shall be of proper size and recommended by the manufacturer or the engineer for such purpose.

(i) Daily inspection of mechanical amusement rides or devices shall be required whenever such ride or device is to be used. The inspection shall be made by the owner or the owner's agent. The inspection shall include the operation of control devices, speed-limiting devices, brakes and other equipment provided for safety including, but not limited to, pins, bolts, keys, and other fasteners. The manufacturer's or engineer's recommendations for inspection shall also be followed. A record of each inspection shall be filed in the ride file jacket.

(j) All power transmission devices and associated moving parts shall be shielded from the public in accordance with the manufacturer's or engineer's recommendations.

(k) Hydraulic systems shall be checked for leaks, damaged pipes and worn or deteriorated hoses. Only manufacturer or engineer-approved hydraulic fluid shall be used. Maximum pressures shall not exceed the manufacturer's or engineer's recommendations.

(l) Pressure relief valves or devices, including but not limited to, compressed air and gas devices, shall be tested in accordance with the manufacturer's or engineer's recommendations. Test records shall be kept in the ride file jacket.

(m) All fabrics constituting part of a mechanical amusement ride or device shall meet the requirements of the small-scale test contained in NFPA 701-1996, Standard Methods of Fire Tests for Flame-Resistant Textiles and Films. The standards promulgated by the National Fire Protection Association (NFPA) are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, MA 02269; telephone number, 1-800-344-3555.

(n) The storage and use of flammable and combustible liquids shall comply with the requirements of the Connecticut Flammable and Combustible Liquids Code, as adopted by the Commissioner of Public Safety pursuant to Section 29-320 of the Connecticut General Statutes.

(o) The storage and use of liquefied petroleum gas shall comply with the requirements of the Connecticut Petroleum Gas and Liquefied Natural Gas Code, as adopted by the Commissioner of Public Safety pursuant to Section 29-331 of the Connecticut General Statutes.

(p) The installation of gas equipment and gas piping shall comply with the requirements of the Connecticut Gas Equipment and Piping Code, as adopted by the Commissioner of Public Safety pursuant to Section 29-329 of the Connecticut General Statutes.

(q) In all locations where vehicles and persons may travel, electrical cables shall be protected by approved methods such as, but not limited to, matting or trenching.

(r) Each electrically or mechanically operated amusement ride or device shall be provided with a control access system. Said system shall prevent such ride or device from starting by a single action.

(s) Safe and adequate means of access to and egress from mechanical amusement rides or devices shall be provided. All passageways shall be free from debris, obstructions, projections and other hazards. All surfaces shall be constructed of materials designed to prevent slipping and tipping. The width of passageways shall not be less than the width of exit doors or stairs to which they lead.

(t) A fixed mechanical amusement ride or device permanently erected shall be set on properly designed and constructed foundations or footings and secured to such footings in a manner that conforms to the manufacturer's or engineer's recommendations. Foundations and footings shall meet the minimum requirements of the Connecticut State Building Code, adopted by the Commissioner of Public Safety pursuant to Section 29-252 of the Connecticut General Statutes.

(u) All mechanical amusement rides or devices shall be surrounded by fencing. Each fence opening shall have a hinged gate adequate to prevent a child from inadvertently entering the enclosed area. Each gate that swings in the direction of travel upon entering the area where the mechanical amusement ride or device is located shall include a latching device that engages when the gate is shut. Fences and gates shall also be constructed and installed so as to prevent riders or spectators from touching the mechanical amusement ride or device and fences or gates at the same time. Not later than January 1, 1999, all fencing and gates shall be at least 42 inches high, constructed so as to prevent passage of a sphere or round object 4 inches in diameter through all openings, and shall be designed, constructed and erected to prevent overturning or climbing by spectators or riders. Fencing and gates manufactured before January 1, 1993 and physically attached to the mechanical amusement ride or device by the manufacturer may remain in service at the discretion of the authority having jurisdiction.

(v) Fixed mechanical amusement rides or devices are required to be dismantled for inspection by the approved engineer or the contractor performing nondestructive testing. The extent of dismantling shall be determined by the manufacturer or engineer and the contractor performing the nondestructive testing.

(w) Mechanical amusement rides or devices are not to be set in the path of natural drainage.

(x) Separation distances required by NFPA 70, National Electrical Code, shall be maintained between mechanical amusement rides or devices and electrical lines, except that greater distances may be required by an inspector in the interest of safety.

(y) It shall be the responsibility of the mechanical amusement ride or device owner to ensure that ride and device operators are trained in the operation of such ride or device, based on the recommendations of the manufacturer or engineer. The owner shall maintain records in each ride file jacket regarding the training each such operator has received, including the nature of the training, when it was received, and the source of the training.

(z) Special amusement buildings shall comply with the requirements of the Connecticut Fire Safety Code and the Connecticut State Building Code as adopted by the Commissioner of Public Safety pursuant to Sections 29-292 and 29-252, respectively, of the Connecticut General Statutes.

(Adopted, effective March 2, 1998)

Sec. 29-136-10a. Ride file jacket

(a) Each mechanical amusement ride or device shall have a current ride file jacket. The file shall be kept on the grounds where the mechanical amusement ride or device is being operated.

(b) The ride file jacket shall contain the nondestructive test report on the testing contractor's official letterhead; the name of the ride or device, the manufacturer and date of manufacture; maintenance records; records of operator training; records of any alterations; serial number; daily check lists; and engineer's report. An English-language owner or operator's manual shall also be part of the file. In the case of a homemade ride or device, an engineer approved by the Commissioner of Public Safety shall prepare an English-language owner or operator's manual.

(c) The ride file jacket shall be presented to the approved engineer or inspector upon his or her request.

(d) In cases of a homemade ride or device, the ride file jacket shall contain a serial number assigned by an engineer approved by the Commissioner of Public Safety, together with maintenance records, any information identifying such ride or device and its manufacturer, and documentation regarding nondestructive testing requirements.

(Adopted, effective March 2, 1998)

Sec. 29-136-11a. Electrical equipment, service and permit

(a) All electrical equipment, wiring and installation shall comply with NFPA 70, National Electrical Code, as referenced within the Connecticut State Building Code in effect at the time of the inspection.

(b) It shall be the responsibility of the owner or manager of the amusement company to ensure that written approval of the electrical service and equipment hookup is obtained from the local building official of the municipality in which the amusement is located prior to the inspection conducted in accordance with Section 29-136-8a.

(c) In the event that the building official is unavailable to inspect the electrical service and equipment hookup, the following emergency provisions shall apply:

(1) The owner or manager of the amusement company shall obtain written approval from an electrician licensed by the State of Connecticut as an E-1 that the electrical service and equipment hookup complies with the standards set forth in subsection (a) of this section.

(2) The electrician referred to in subdivision (c) (1) of this section shall not be the person or a person employed by any firm or corporation responsible for installing the electrical service or equipment hookup.

(d) All electrical junction boxes shall be locked or sealed, properly protected from contact with the general public and identified as such.

(Adopted, effective March 2, 1998)

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Repealed, December 23, 1997.

Connecticut Tent and Portable Shelter Code

Secs. 29-140-1a—29-140-5a.

Repealed, November 2, 1999.

Sec. 29-140-1b. The Connecticut tent and portable shelter code. Introduction

(a) Regulations of the Department of Public Safety, Sections 29-140-1b to 29-140-8b, inclusive, of the Regulations of Connecticut State Agencies, together with the adopted standard, shall be known as the Connecticut Tent and Portable Shelter Code.

(b) Sections 29-140-1b to 29-140-8b, inclusive, shall apply to tents and portable shelters erected for less than 180 consecutive calendar days. Tents and portable shelters erected for a longer period of time shall comply with the requirements of the State Building Code and the State Fire Safety Code, Section 29-252-1c and Sections 29-292-1d to 29-292-9d, inclusive, of the Regulations of Connecticut State Agencies, respectively.

(c) Sections 29-140-1b to 29-140-8b, inclusive, shall not apply to tents and portable shelters erected on the grounds of one- and two-family dwellings for private party purposes, provided that no admission fee is charged.

(Adopted effective November 2, 1999)

Sec. 29-140-2b. Definitions

As used in Sections 29-140-1b to 29-140-8b, inclusive:

(1) “Tent” means any structure with or without side panels having wood or metal supports and using any kind of a textile or similar material for coverage, and having a capacity sufficient to shelter 100 or more persons or covering a ground area of more than 1,200 square feet.

(2) “Portable shelter” means any temporary structure with or without side panels, the covering of which is made of pliable material, such as plastic or fabric, that achieves its shape by air support, air inflation, or tension and having a capacity sufficient to shelter 100 or more persons.

(3) “Temporary” means in place for fewer than 180 consecutive calendar days.

(Adopted effective November 2, 1999)

Sec. 29-140-3b. Authority having jurisdiction

(a) For the purpose of regulations adopted by reference under authority of Section 29-140 of the Connecticut General Statutes, “authority having jurisdiction” means the Commissioner of Public Safety. The Commissioner of Public Safety is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within Sections 29-140-1b to 29-140-8b, inclusive.

(b) The local fire marshal or local building official shall make the initial determination concerning compliance with Sections 29-140-1b to 29-140-8b, inclusive, except as expressly provided in the wording of a section.

Exception to (b): The Commissioner of Public Safety shall make the determination concerning compliance with Sections 29-140-1b to 29-140-8b on State-owned property.

(Adopted effective November 2, 1999)

Sec. 29-140-4b. Relationship to the state building code

Specific requirements for character and arrangement of seating, means of egress, lighting and other safety measures for the prevention or abatement of fire, casualty and related hazards shall be as set forth in the State Building Code, Section 29-252-1c of the Regulations of Connecticut State Agencies.

(Adopted effective November 2, 1999)

Sec. 29-140-5b. Police protection

(a) In municipalities in which there is a municipal police department having jurisdiction over the site on which the tent or portable shelter is located, the chief of police may determine the extent of police protection at the site.

(b) In municipalities in which the Department of Public Safety has jurisdiction over the site on which the tent or portable shelter is located, the commander of the state police troop for the geographic area in which the site is located shall determine the extent of police protection at the site.

(c) The Commissioner of Public Safety shall assign sworn members of the Department of Public Safety to any tent or portable shelter in which a circus is presented for the prevention or abatement of fire, casualty and related hazards.

(d) Police protection provided in accordance with this section shall be paid for by the person or persons operating, conducting or promoting such assembly of one hundred or more persons.

(Adopted effective November 2, 1999)

Sec. 29-140-6b. Fire protection

(a) In municipalities in which the local fire marshal has jurisdiction over the site on which the tent or portable shelter is located, the local fire marshal shall determine when fire protection is necessary and the amount of such protection and the chief of the fire department shall furnish such protection.

(b) On state-owned property, the Commissioner of Public Safety shall determine when fire protection is necessary and the amount of such protection, and the chief of the fire department shall furnish such protection.

(c) Fire protection provided in accordance with this section shall be paid for by the person or persons operating, conducting or promoting such assembly of one hundred or more persons.

(Adopted effective November 2, 1999)

Sec. 29-140-7b. Adopted standard

(a) The following standard adopted by the National Fire Protection Association, Inc. (NFPA) is hereby adopted as part of Section 29-140-1b to 29-140-8b, inclusive:

NFPA 102-1995, *Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures*, except as amended, altered or deleted as indicated in Section 29-140-8b.

(b) This standard is available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, Massachusetts 02269; telephone number, 1-800-344-3555.

(Adopted effective November 2, 1999)

Sec. 29-140-8b. Connecticut amendments

NFPA 102-1995 is amended to meet the needs of the State of Connecticut as follows:

NOTE:

A section or subsection in the Connecticut Amendments preceded by “AMD” indicates the substitution of this provision in the adopted referenced standard, NFPA 102-1995, Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures.

A section or subsection in the Connecticut Amendments preceded by “DEL” indicates the deletion of this provision in the aforementioned adopted referenced standard.

A section or subsection in the Connecticut Amendments preceded by “ADD” indicates the addition of this provision in the adopted referenced standard.

A section or subsection in the Connecticut Amendments followed by an asterisk “” indicates that explanatory material on the section or subsection can be found in Appendix A of the adopted referenced standard.*

Chapter 1 General

- (AMD) **1-5.2.** The specific requirements of this standard shall be permitted to be modified by the Commissioner of Public Safety to allow alternative arrangements that will secure as nearly equivalent safety to life from fire as practicable, but in no case shall the modification afford less safety to life than, in the judgment of the Commissioner of Public Safety, that which would be provided by compliance with the corresponding provisions contained in this standard.

Chapter 3 Means of Egress

- (AMD) **3-1.1.** Means of egress from facilities included within the scope of this standard shall comply with the provisions of the State Fire Safety Code for the appropriate occupancy classification.

Chapter 6 Permanent Membrane Structures

- (DEL) **6-1.8.2.**

Chapter 8 Tents

- (DEL) **8-4.3.**

Chapter 9 Protection

- (AMD) **9-2.4** Smoking shall not be allowed in any tent or portable structure.

- (AMD) **9-3.2.** In other than enclosed stadia, arenas, and similar structures, enclosed areas shall be protected by an approved sprinkler system in accordance with NFPA 13-1996, *Standard for the Installation of Sprinkler Systems*.

Exception No. 1: Press boxes less than 1,000 sq ft (93 sq m) in area.

Exception No. 2: Storage facilities less than 1,000 sq ft (93 sq m) in area if enclosed with minimum 1-hour fire resistance-rated construction.

Exception No. 3: Enclosed areas underneath grandstands or bleachers that comply with the exceptions to Section 4-8.

Exception No. 4: Temporary membrane structures and tents.

(DEL) **9-5.* Fire Detail.**

Chapter 11 Referenced Publications

(AMD) **11-1.1. NFPA Publications.**

NFPA 10-1998, *Standard for Portable Fire Extinguishers*;

NFPA 13-1996, *Standard for the Installation of Sprinkler Systems*;

NFPA 30. See Connecticut Flammable and Combustible Liquids Code, Sections 29-320-1a to 29-320-4a, inclusive, of the Regulations of Connecticut State Agencies;

NFPA 31. See Connecticut Oil Burning Equipment Code, Sections 29-317-1a to 29-317-3a, inclusive, of the Regulations of Connecticut State Agencies;

NFPA 54. See Connecticut Gas Equipment and Piping Code, Sections 29-329-1 to 29-329-4, inclusive, of the Regulations of Connecticut State Agencies;

NFPA 58. See Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code, Sections 29-331-1 to 29-331-5, inclusive, of the Regulations of Connecticut State Agencies;

NFPA 70-1999, *National Electrical Code*;

NFPA 90A-1996, *Standard for the Installation of Air Conditioning and Ventilating Systems*;

NFPA 101. See State Fire Safety Code, Sections 29-292-1d to 29-292-9d, inclusive, of the Regulations of Connecticut State Agencies;

NFPA 211-1996, *Standard for Chimneys, Fire Places, Vents, and Solid Fuel-Burning Appliances*;

NFPA 220-1995, *Standard on Types of Building Construction*;

NFPA 251-1995, *Standard Methods of Fire Tests of Building Construction and Materials*;

NFPA 256-1998, *Standard Methods of Fire Tests of Roof Coverings*;

NFPA 259-1998, *Standard Test Method for Potential Heat of Building Materials*; and

NFPA 701-1996, *Standard Methods of Fire Tests for Flame-Resistant Textiles and Films*.

(ADD) **11-1.5. Other Publications.**

CONNECTICUT FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE, State of Connecticut, Department of Public Safety, Office of State Fire Marshal, P.O. Box 2794, Middletown, CT 06457-9294.

CONNECTICUT GAS EQUIPMENT AND PIPING CODE, State of Connecticut, Department of Public Safety, Office of State Fire Marshal, P.O. Box 2794, Middletown, CT 06457-9294.

CONNECTICUT LIQUEFIED PETROLEUM GAS AND LIQUEFIED NATURAL GAS CODE, State of Connecticut Department of Public Safety, Office of State Fire Marshal, P.O. Box 2794, Middletown, CT 06457-9294.

CONNECTICUT OIL BURNING EQUIPMENT CODE, State of Connecticut, Department of Public Safety, Office of State Fire Marshal, P.O. Box 2794, Middletown, CT 06457-9294.

STATE FIRE SAFETY CODE, State of Connecticut, Commission on Official Legal Publications, 111 Phoenix Avenue, Enfield, CT 06082-4440.

(Adopted effective November 2, 1999)

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Boxing and Sparring
(Transferred from Sec. 21a-196)

General

Sec. 29-143j-1. Definitions

As used in sections 29-143j-1 to 29-143j-89, inclusive:

(a) “Amateur Boxing Association” refers to any amateur boxing organization or entity that has registered with the commissioner pursuant to Section 29-143j-76 of these regulations.

(b) “Amateur Boxer” means a boxer who has not engaged in boxing contests for money or as a means of livelihood. An amateur boxer may receive a trophy or other non-monetary award that does not exceed one hundred dollars in value.

(c) “Bout” means a match between two boxers.

(d) “Boxer” means a contestant in the sport or skill of fighting with the fist.

(e) “Commissioner” means the Commissioner of Public Safety.

(f) “Consultant” means a person, other than an attorney at law, that a boxer refers to for expert or professional advice.

(g) “Contest” means a series of bouts that consists of at least 26 scheduled rounds of boxing in which the boxers strive in good faith to win.

(h) “Dressing Room” means the area or room where a boxer puts on his boxing costume.

(i) “Exhibition” means a bout between two boxers where a winner or loser will not be determined, but where the boxers may display their skills.

(j) “Inspector” means any person designated by the commissioner to represent the commissioner at all boxing or sparring matches, contests or exhibitions pursuant to section 29-143j of the Connecticut General Statutes.

(k) “Manager” means any person, partnership, corporation or other business entity that performs at least one of the following functions:

(1) By contract, agreement, or other arrangement with any person, undertakes or has undertaken to represent in any way the interest of any other person in procuring, arranging, or conducting a boxing bout or contest or exhibition in which such person is to participate as a boxer;

(2) Directs or controls the boxing activities of any boxer;

(3) Receives or is entitled to receive more than 10% of the gross earnings of any professional boxer for any services relating to such boxer’s participation in a professional boxing contest;

(4) Is an officer, director, or stockholder of any corporation which receives or is entitled to receive more than 10% of the gross earnings of any professional boxer for services relating to such boxer’s participation in a professional boxing contest; or

(5) Acts as a consultant or an advisor relating to a professional or amateur boxer’s participation in a boxing contest.

(l) “Matchmaker” means any person, partnership, corporation or other business entity that arranges the separate bouts for a boxing contest or exhibition.

(m) “Professional Boxer” means any person who competes for a money prize or purse in any boxing contest or exhibition.

(n) “Promoter” means any person, partnership, corporation or other business entity that produces, stages, arranges or furthers a boxing contest or exhibition.

(o) “Ringside” means the seating immediately abutting the ring where the officials, the commissioner and his representatives, and the press sit during a boxing contest or exhibition.

(p) “Round” means the period during which two boxers box.

(q) “School, College or University” refers to every school, college or university supported, whether or not supported in whole or in part from public funds, which is determined by the (Connecticut) State Board of Education to be maintained primarily for the giving of general academic instruction.

(r) “Sickness” and “Illness” mean any affliction of the body including the common cold, which deprives the body temporarily of the power to fulfill its usual functions.

(s) “Sparring” means all training conducted by a boxer in preparation for a bout, contest or exhibition and includes physical contact in a boxing ring.

(t) “Summary Suspension in accordance with Section 4-182 (c) of the General Statutes” means an immediate suspension of a license due to a finding that the health, safety or welfare of the licensee or the public imperatively requires emergency action.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Sec. 29-143j-2. Boxer’s compensation

The minimum compensation to any professional boxer who competes in at least a 4 round bout shall be \$100.00 or such other sum as the commissioner or his authorized representative shall approve.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-3. Disclosure of financial or family relationships

The promoter producing a boxing contest or exhibition shall have no financial dealings, directly or indirectly, with a manager or boxer who is engaged in a bout produced by the promoter, nor shall the promoter produce a boxing contest or exhibition in which the manager or the boxer is a member of the promoter’s immediate family, unless the financial dealings or relationship is disclosed to the commissioner prior to the time that the contest or exhibition is authorized by the commissioner or his representative.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-4. Papers filed with the commissioner

All applications, records and other papers or documents filed with or submitted to the commissioner become the property of the Department of Public Safety.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Sec. 29-143j-5. Persons prohibited from holding a financial interest in a boxer

No official or employee of the commissioner, referee, judge or timekeeper may directly or indirectly have any financial interest whatsoever in any boxer, promoter or manager.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-6. Records

All of the records and other documents of any person licensed under chapter 532a of the Connecticut General Statutes that pertain to the licensed activity shall, during regular business hours, be subject to the inspection of the commissioner or such commissioner’s representative.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Approval of Boxing Contest

Sec. 29-143j-7. Approval of contest by commissioner

(a) Before approving any boxing contest, the commissioner or his authorized representative shall inquire into the relative merits of the boxers, their past records,

and whether or not they are suitable opponents. The commissioner reserves the right to disapprove any bout on the ground that it is not in the best interest of boxing or the health of either of the boxers.

(b) The promoter must also submit a certified letter from the owner or manager of a registered facility stating that the facility has agreed to allow the promoter to use the facility for sparring and/or to hold a boxing contest or exhibition.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-8. Boxing program in connection with a charitable organization

No promoter shall conduct any boxing contest under the auspices of or in conjunction with any charitable organization unless the promoter first submits to the commissioner or his authorized representative the agreement between the promoter and the charity setting forth the terms and conditions of the proposed program and receives the commissioner's or his authorized representative's approval.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-9. Changes in program

(a) A notice of any change in the announced or advertised boxers in a boxing contest must be approved by the commissioner or his representative prior to the change being made and announced.

(b) Notice of such an approved change must be announced and/or advertised as soon as possible after the change has been approved.

(c) The notice of such an approved change must also be announced from the ring prior to the opening bout.

(d) Any ticket holder may obtain a full refund due to such a change by presenting his ticket at the box office before the conclusion of the opening bout.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-10. Contracts

All contracts between boxers, managers, matchmakers and/or promoters shall be filed with the commissioner or his representative prior to the boxing contest. Contract forms may be obtained from the commissioner or his representative.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-11. Number of rounds per contest

There shall be no less than 26 scheduled rounds of boxing in any one scheduled boxing contest.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-12. When a contest may be announced

No licensee may announce that a boxing contest will take place unless the commissioner or the commissioner's representative has approved such contest. The promoter shall notify the commissioner of any proposed boxing contest, and shall include in such notice the name and location of the proposed facility and the number of proposed bouts at least 30 days prior to the proposed scheduled date of the boxing contest.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Bonding of Promoters

Sec. 29-143j-13. Performance bond

(a) The commissioner may, in his discretion, require any promoter to furnish a surety bond to the commissioner in an amount deemed by the commissioner to be

adequate to insure reimbursement to the ticket holders and the payment of services rendered by the boxers, timekeepers, announcer, physicians, referees, judges and other officials as well as the payment of taxes.

(b) In the event a promoter shall guarantee a purse to the boxers, the commissioner may, in his discretion, require the promoter to furnish a surety bond in the amount of the guaranteed amount of the purse.

(c) Every surety bond allowed by these regulations or otherwise required to be furnished to the commissioner must be approved by the commissioner. The bond must be received by the commissioner or his representative at least 5 days prior to the contest.

(d) The commissioner may, in his discretion, accept cash or certified check either in whole or in part in lieu of a surety bond.

(e) Every surety bond allowed by these regulations or otherwise required to be furnished to the commissioner will be released when the commissioner has reason to believe that the obligations secured by such bond have been honored. In no event shall the bond be released until at least 60 days after the boxing contest has been held, or when the promoter's license expires.

(Effective June 21, 1991; transferred July 27, 2007)

The Boxers' Equipment

Sec. 29-143j-14. Bandages

(a) In all classes up to and including middleweights, all bandages on the hands of a boxer shall be restricted to soft surgical gauze not more than 10 yards in length and 2 inches in width, held in place by not more than 4 feet of surgeon's tape for each hand.

(b) In all other classes the bandages must be soft surgical gauze not more than 12 yards in length and not more than 2 inches in width, held in place by not more than 8 feet of surgeon's tape for each hand.

(c) The use of 6 inches of adhesive tape, not more than 1 inch wide, will be permitted across the back of each hand before bandaging the hands provided that no adhesive tape may be placed over the knuckles.

(d) These bandages will be applied in the dressing room in the presence of the commissioner or his representative. Under no condition are gloves to be placed on the hands of the boxer until the bandages are approved and marked by the commissioner or his representative.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-15. Gloves

(a) The gloves shall be new for all main and semi-final bouts and also for all bouts scheduled for 10 rounds or more. The promoter is to furnish all of the gloves. All gloves must be approved by the commissioner or his representative. In all bouts no less than 8 ounce gloves shall be used.

(b) In non-championship bouts the gloves will be placed on the boxer's hands in the dressing room and taken off in the dressing room.

(c) In championship bouts the gloves will be placed on the boxer's hands and taken off in the ring.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-16. Miscellaneous

Each boxer shall provide himself with a ring costume approved by the commissioner or his representative. Such costume shall include a foul-proof guard and a protective mouthpiece.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-17. Sanitation

Each boxer shall have a clean white towel, a clean bucket and a clean bottle of water for each bout.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-18. Shoes

No shoes with spikes, cleats, hard soles or hard heels are permitted in the ring.

(Effective June 21, 1991; transferred July 27, 2007)

Conduct of Boxing Bout**Sec. 29-143j-19. Dressing rooms**

(a) No one shall be allowed in a boxer's dressing room except (1) the boxers, (2) their managers and seconds, (3) the commissioner and his representatives, and (4) the promoter.

(b) The promoter shall provide for adequate security to enforce this Section of these Regulations.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-20. Duration of matches

(a) In non-championship bouts, there will be 4, 6, 8, 10 or 12 three minute rounds.

(b) In all world championship bouts the number and duration of the rounds will be conducted pursuant to the rules of the championship authority.

(c) State championship bouts will be conducted at either 12 or 15 three minute rounds.

(d) At the discretion of the commissioner or his representative, bouts may be held with two minute rounds.

(e) There shall be a one minute intermission between rounds.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-21. Loss of mouthpiece

The unintentional loss of a mouthpiece during a bout will result in a time-out so that the mouthpiece may be cleansed and replaced and then the bout will be continued. A boxer who intentionally loses his mouthpiece may be disqualified.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-22. Mandatory eight count

When a boxer is clearly knocked down, he shall be required to take a count of eight whether or not he has regained his feet before the count of eight has been reached. Should a boxer slip, fall down or be pushed, he shall be ordered to his feet immediately. Failure to rise may subject him to a disqualification.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-23. Officials

For each bout the following officials shall be in attendance: 1 referee, 3 judges, 1 announcer and at least 1 physician.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-24. Prohibited acts

The following acts shall be prohibited:

- (a) Any excessive or undue spraying or throwing of water on any boxer.
- (b) Coaching a boxer during the progress of any round.
- (c) Throwing a towel or any other object into the ring at any time during the bout for any reason including as a token of defeat.
- (d) The application of Monsel's solution or any of its derivatives on the body of a boxer at any time during a bout.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-25. Reporting to dressing rooms

All boxers participating at a boxing program must report to their dressing room no later than 2 hours prior to the scheduled start of the boxing program. All boxers will stay in their dressing room until the start of their bout unless they first receive permission to leave by the commissioner or his representative.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-26. Seconds

- (a) Each boxer may be accompanied by up to three seconds.
- (b) Only one second may enter the ring between rounds.
- (c) Seconds must remain seated and silent during each round.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-27. Weigh-in

(a) The time and place for all weigh-in ceremonies of boxing contests shall be determined by the commissioner or his representative.

(b) The boxers shall be weighed on scales approved by the commissioner or his representative and in the presence of their opponent and the matchmaker.

(c) The weigh-in shall be supervised by the commissioner or his representative.

(d) In the event of a postponement of the boxing contest, or individual bout, for more than 24 hours for any reason, a second weigh-in and additional physical examination may be required on the day to which the bout has been continued.

(Effective June 21, 1991; transferred July 27, 2007)

Duties of Inspectors

Sec. 29-143j-28. Duties of inspectors

(a) The commissioner or such commissioner's representative shall assign sufficient inspectors to insure the proper enforcement of chapter 532a of the Connecticut General Statutes and the regulations adopted thereunder.

(b) The inspector may not hold any license or registration issued pursuant to chapter 532a of the Connecticut General Statutes, nor may such inspector hold a direct or indirect financial interest in any licensee or registrant licensed or registered pursuant to chapter 532a of the Connecticut General Statutes.

(c) The inspector shall perform such inspector's duties under the direction of the commissioner or such commissioner's representative.

(d) No inspector may eat or drink at ringside.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Duties of the Promoter

Sec. 29-143j-29. Duties of the promoter

(a) All promoters shall make such arrangements to safeguard the premises where boxing contests are conducted so as to insure to the commissioner's satisfaction that adequate protection against injury, riot, stampede or disorderly conduct have been provided.

(b) All promoters shall provide in each registered facility where boxing contests are conducted, a special private room for the referees and a second special private room for the commissioner or his authorized representative.

(c) All promoters shall be responsible for payment of all officials in accordance with a schedule of fees established by the commissioner or his authorized representative.

(d) All promoters in distributing the receipts of any boxing contest must first deduct all taxes due to the State, and then deduct all sums due for payments to the officials and insurance premiums. Thereafter, the boxers will be compensated.

(e) The promoter's license shall be available for inspection by any person at any reasonable time.

(f) All promoters shall supply suitable seating at ringside for the officials, the commissioner and the commissioner's representatives.

The seating shall be as follows:

(1) Three high chairs for the judges. Each chair to be placed in the center of three of the four ringside rows;

(2) One seat for the announcer;

(3) One seat for the timekeeper;

(4) One seat for the assistant timekeeper;

(5) One seat in each boxer's corner for the commissioner's representative;

(6) One seat in each boxer's corner for each ringside physician; and

(7) Such other seats as required by the commissioner or his representative.

The seating of the officials, commissioner and the commissioner's representative shall take precedence over anyone else sitting at ringside. No tickets may be sold for these ringside seats.

(g) The promoter is responsible for and must maintain proper sanitary conditions with respect to dressing rooms, toilets, showers, water bottles, towels and other athletic equipment.

(h) The promoter must provide to the ringside physician a telephone or other acceptable audio equipment that will enable the ringside physician to summon an ambulance.

(i) The promoter must arrange to have an ambulance or other acceptable means of transportation available at the facility for injured boxers who may need transportation to the nearest hospital.

(Effective June 21, 1991; transferred July 27, 2007)

Duties of the Ring Officials

Sec. 29-143j-30. Officials

(a) The promoter shall pay to each official the required fee.

(b) The promoter may use any properly licensed person to work as a timekeeper or announcer.

(c) The commissioner or his representative shall select the referees and judges that will work at a boxing contest.

(d) No licensed official may work in any boxing contest that has not been approved by the commissioner or his representative.

(e) No official, director, matchmaker or stockholder of any promoter shall officiate in any capacity at any boxing contest conducted by such promoter, or interfere in any way with the contestants participating in such boxing contest.

(f) Each official shall wear a suit or sport coat and dress slacks, a dress shirt, tie and appropriate shoes. The suit jacket or sport coat may be removed with the authority of the commissioner or his representative.

(g) No official may eat or drink at ringside.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-31. Announcer

(a) The announcer may not be in the direct and regular employ of the promoter except for the function of announcing the boxing contest.

(b) The announcer of the bout shall be the master of ceremonies and at the conclusion of each bout must collect the score card from each judge and submit the score card to the commissioner or his representative for inspection before making any announcement of the decision of the judges.

(c) The announcer shall announce the name of the contestants and their correct weights, and any other matters that he is directed to announce by the commissioner or his representative.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-32. Judge

(a) Three judges will be assigned to each bout.

(b) Each judge will sit outside the ring platform.

(c) At the conclusion of each round the judge must score each boxer's performance.

(d) At the conclusion of the bout, each judge must tally the total amount of points he has awarded each boxer, indicate the winner, sign his score card and submit his score card to the commissioner or his representative.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-33. Referee

(a) The referee shall inspect each boxer's gloves and bodies to make sure that no foreign substances have been applied, except that tape may be applied to the laces of the gloves and the laces of the boxer's shoes to prevent the laces from becoming untied during a bout. The laces of each glove shall be knotted on the back of the wrist and a strip of one-inch adhesive tape placed over each lace.

(b) The referee may ask the ring physician to enter the ring to examine a cut or other injury which may incapacitate either boxer. Time will be called during this examination.

(c) The referee may stop the bout at any stage and disqualify both boxers or award the decision to one boxer under the following circumstances:

(1) the bout is too one sided;

(2) a contestant is not in a condition to continue;

(3) one or both contestants are not competing in earnest;

(4) a major foul has been committed; or

(5) the ring physician has ordered that the bout be stopped.

(d) In a bout where he is not acting as a referee, a referee may serve as a judge.

(e) The referee shall give instructions to the boxers in their dressing rooms.

(f) Before the start of each bout the referee shall call the contestants together for final instructions at which time each boxer shall be accompanied only by a second and, if necessary, an interpreter.

(g) The referee shall wear soft-soled shoes, dark trousers, and a plain white, gray or black and white vertical striped shirt. The referee may also wear a black bow tie. Other than the brand name of the wearing apparel, the clothing worn by the referee may not contain any advertising.

(h) The referee shall decide all questions arising during a boxing contest.
(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-34. Timekeepers

(a) The timekeeper must sit outside the ring platform and next to the gong.

(b) Each timekeeper must have either a whistle or a buzzer and a stopwatch, all of which must be submitted for approval to the commissioner or his representative for approval.

(c) In the event that a bout terminates by a knockout during any round, the timekeeper shall inform the announcer of the exact duration of such round.

(d) The timekeeper shall signal the following:

(1) the beginning of each round;

(2) that 10 seconds remain in the round;

(3) that 10 seconds remain before the start of the next round; and

(4) the end of each round. The gong is to be used to signal the start and end of a round and the whistle or buzzer to indicate the 10 second marks.

(Effective June 21, 1991; transferred July 27, 2007)

Duties of Physicians

Sec. 29-143j-35. Duties of physicians

(a) Contractual Physician

(1) The physician must be licensed for at least two years to practice medicine in this State;

(2) The physician will conduct a physical examination of the boxer prior to the department issuing a license to box;

(3) The physician will review the applicant's complete medical history prior to the department issuing a license to box or referee;

(4) the physician will order any additional clinical testing that may be required;

(5) the physician will review the results of any such additional testing;

(6) the physician will be available to travel within the state "as needed" to attend boxing contests in order to perform the above-noted examinations and review; and

(7) The physician whose services are used pursuant to subsection (b) of section 29-143t of the Connecticut General Statutes, shall be paid as provided by said subsection.

(b) Ringside Physician

(1) The physician must be licensed to practice medicine in this State for at least two years;

(2) The physician shall conduct the pre-bout examination required by section 29-143t of the Connecticut General Statutes.

(3) The physician may examine the boxer during any intermission between rounds in order to determine the extent of any injury;

(4) The physician may enter the ring during the progress of a bout in order to determine the extent of any injury;

(5) The physician may terminate any boxing bout to prevent severe punishment or serious physical injury to either boxer;

(6) In the event of any injury the physician shall immediately:

(A) render any emergency treatment necessary;

(B) recommend further treatment or hospitalization if required; and

(C) fully report the matter to the commissioner or his representative within 24 hours;

(7) The physician may also require that the injured boxer and his manager remain in the ring or on the premises after the contest for such period of time as the physician deems advisable;

(8) The physician whose services are used as provided by subsection (a) of section 29-143t of the Connecticut General Statutes, shall be paid as provided by said subsection.

(9) The physician will work under the direction of the commissioner or his representative. The commissioner or his representative shall assign two licensed physicians to each boxing contest. The purpose of having two physicians present is to allow one physician to remain ringside at all times while the second physician is attending an injured boxer.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Grounds for Reprimand, Suspension, Revocation of a License or Forfeiture of a Purse

Sec. 29-143j-36. Grounds for reprimand, suspension or revocation of a license or forfeiture of a purse

(a) The following are grounds for the reprimand, suspension or revocation of a boxer's license:

(1) Receiving payment prior to the conclusion of the boxing contest; and

(2) Testing positive for controlled substances, as defined in subsection (9) of Section 21a-240 of the general statutes in any urine or blood analysis.

(b) The following are grounds for reprimand, suspension or revocation of the license or registration of anyone licensed or registered pursuant to chapter 532a of the Connecticut General Statutes, including boxers:

(1) Engaging in conduct of a character likely to mislead, deceive or defraud the public or the commissioner;

(2) Any disorderly act, assault or breach of decorum occurring during a boxing contest in which the licensee is participating;

(3) Failing to report a suspected or actual injury or illness of a boxer to the commissioner or such commissioner's authorized representative;

(4) Informing the media of an illness or injury to a boxer before notifying the commissioner or such commissioner's authorized representative; and

(5) Violating any of the provisions of chapter 532a of the Connecticut General Statutes or any regulation adopted pursuant to any such provisions.

(c) The following are grounds for the immediate summary suspension of a boxer's license. The period of suspension will be for 30 days or until the boxer has taken and passed a physical examination pursuant to Section 21a-196-55 of these regulations, whichever is longer. The suspension will take effect upon the oral or written notification to the boxer or his manager.

(1) Sustaining a severe injury or a knockout in any fight and in any jurisdiction; and

(2) Testing positive for a controlled substance, as defined in section 21a-240 of the Connecticut General Statutes, in any urine or blood analysis.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Insurance

Sec. 29-143j-37. Insurance

(a) All promoters shall continuously provide insurance for the protection of boxers competing in contests produced by the promoter. Such insurance coverage shall provide for total reimbursement to the boxer for medical, dental, surgical and hospital care for all injuries sustained while sparring and/or participating in any contest conducted under the control of such licensed promoter.

(b) Said insurance shall also contain a death benefit payment of \$ 10,000 to the estate of the deceased boxer if such death is occasioned by injuries received during the course of sparring or during the course of the boxing contest or exhibition conducted under the control of such licensed promoter.

(c) The boxer may be required to pay for the deductible amounts of said insurance, provided that the boxer shall not be required to pay more than he received or would have received as a purse.

(d) The promoter shall furnish to the commissioner a copy of the insurance policy or binder referred to in these regulations at least 5 days prior to the scheduled date of the boxing contest.

(Effective June 21, 1991; transferred July 27, 2007)

Licenses

Sec. 29-143j-38. Who must be licensed

(a) All boxing promoters, referees, judges, matchmakers, timekeepers, assistant timekeepers, announcers, professional boxers, managers and seconds shall be licensed by the commissioner and no person, corporation, or other business entity shall be permitted to participate, either directly or indirectly, in any sparring, boxing contest or the holding thereof, unless such person, corporation or other business entity has first obtained the appropriate license from the commissioner or his representative.

(b) All amateur boxers shall be registered before they participate in any sparring or boxing contest.

(c) All facilities must be registered before they may be used for sparring or to hold a boxing contest.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-39. Application for licensure or registration

All applications for licensure or registration shall be made on forms provided by the commissioner.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-40. Payment for license or registration

Payment for each license or registration must accompany the application. Payment may be made by cash, check or money order. Checks and money orders should be made payable to, "TREASURER, STATE OF CONNECTICUT."

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-41. Announcers

The fee for an announcer's license shall be \$15.00.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-42. Facility

(a) In order to be registered the facility must provide the following to the commissioner:

- (1) name and address of facility;
- (2) the name of the owner of the facility;
- (3) the name of the manager of the facility;
- (4) certification from the local building official attesting to the suitability of the premises for sparring or holding a boxing contest;
- (5) certification from the local fire marshal attesting to the fact that the facility is in compliance with the fire codes; and
- (6) a full description of the facility's sanitary facilities and emergency medical facilities.

(b) The registration fee shall be \$25.00.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-43. Judges

Prior to obtaining a license to judge, the applicant must undergo an ophthalmological examination and show that his vision is at least 20/40 either with or without eyeglasses. The fee for a judge's license shall be \$65.00.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-44. Manager's license

(a) All applications for a boxing manager's license shall contain a true statement of all persons associated with the manager as immediate family member (father, mother, spouse, children, father-in-law, or mother-in-law), employees, stockholders, partners and independent contractors. On his application the manager must include the name and address of each boxer that he represents and must designate if the boxer is an amateur or professional. During the course of a bout a manager may act as a second for his boxer. Managers shall keep accurate records of the receipts and expenses of the boxers under their management and control.

(b) No manager shall be allowed to contract for the services of a boxer under his management for a bout to take place on a date after the expiration date of the contract between the manager and his boxer, unless such bout has been approved by the commissioner.

(c) The commissioner shall not recognize any contract between a manager and a boxer unless a copy of the contract was filed with the commissioner at the time that either became licensed in this state or within 30 days of the signing of the contract if the contract was entered into after both the boxer or the manager became licensed in this state.

(d) The fee for a manager's license shall be \$65.00.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-45. Multiple licenses

A person, corporation or other business entity may hold more than one license; however, for each boxing contest a person, corporation, or other business entity may only use one license. For example the promoter may not act as the matchmaker, as a manager of any boxer appearing in the contest, as a referee, as a judge or as a timekeeper. This prohibition also applies to the employees or stockholders of any licensee. A licensee may own or have an interest in the registered facility.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-46. Professional boxers

An applicant for a professional boxer's license must submit proof to the commissioner or his representative that the applicant is qualified to become a professional boxer. Such proof could be but is not limited to a license from an out of state licensing authority or his amateur boxing experience. The fee for a professional boxer's license shall be \$15.00. An out-of-state boxer who holds a license from an out of state licensing authority may obtain a temporary boxing permit. The fee for said permit shall be \$15.00.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-47. Promoter's license

(a) In order to be licensed as a promoter, a corporation must provide to the commissioner a certificate of good standing from the Connecticut Office of the Secretary of the State, a photocopy of the last annual report filed with the Secretary of the State and a listing of all current officers and directors. The fee for the promoter's license shall be \$250.00.

(b) In order to be licensed as a promoter, an individual must provide an affidavit to the commissioner attesting to the fact that the individual is over the age of 18, and that the individual has never been convicted of a felony. The fee for the promoter's license shall be \$250.00.

(c) In order to be licensed as a promoter, each individual or business entity must comply with the provisions of Section 20-196-47 (b) of these Regulations.

(d) The commissioner shall not issue any license to any promoter unless he is satisfied that the applicant is the real party in interest and intends to conduct a boxing contest or exhibition.

(e) The promoter shall furnish to the commissioner a listing of all of the employees working for the promoter and shall update said listing within 30 days of any changes.

(f) In order to renew his license, the promoter, shall furnish to the commissioner a copy of his worker's compensation policy or binder in accordance with Section 31-286a (b) of the general statutes.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-48. Referees

Prior to obtaining a license to referee, the applicant shall undergo the same examination that is required for a boxer pursuant to Section 21a-196-55 of these Regulations. The fee for a referee's license shall be \$65.00.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-49. Seconds

An applicant for a second's license shall submit a recommendation from a licensed manager, matchmaker or promoter and/or such other proof as the commissioner or his representative may require. The fee for a second's license shall be \$15.00.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-50. Timekeepers and assistant timekeepers

The fee for a timekeeper's license shall be \$15.00.

(Effective June 21, 1991; transferred July 27, 2007)

Medical Advisory Board**Sec. 29-143j-51. Medical advisory board**

There shall be a medical advisory board consisting of six physicians, one chiropractor and one doctor of dental surgery, all duly licensed to practice in this state

appointed by the commissioner. The Chairman will be designated by the commissioner. The medical advisory board shall prepare and submit to the commissioner for his approval standards for the physical examination of professional boxers, and the medical advisory board shall review the reports from hospitals and physicians in order to make recommendations to the commissioner based on such reports. The medical advisory board may select and appoint to its consulting staff specialists in their field of medicine whose expert opinion might be needed concerning serious injuries to boxers. Any physician licensed in the State of Connecticut for at least two years may be registered with the Medical Advisory Board as ringside physician at no charge and such registration shall be subject to Section 21a-196-36 (b) of these Regulations.

(Effective June 21, 1991; transferred July 27, 2007)

Payment of Taxes

Sec. 29-143j-52.

Repealed, July 27, 2007.

Physical Examination of Boxers

Sec. 29-143j-53.

Repealed, July 27, 2007.

Sec. 29-143j-54. Forms

The commissioner or his representative shall supply the following forms to be used for boxers:

- (a) annual examination prior to licensing;
- (b) weigh-in examination;
- (c) examination prior to boxer's entry into the ring; and
- (d) examination after injury.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-55. Examination for licensure

In order to obtain a license all boxers shall submit to a thorough medical examination by a physician licensed to practice in this state for at least two years, or in the case of an out-of-state boxer, a physician approved by the boxing authority in his state. The examination shall include a complete medical history including the following:

- Computerized Axial Tomography Scan (Cat-Scan);
- electroencephalogram examination (EEG);
- neurological examination;
- ophthalmological examination conducted by a duly licensed ophthalmologist;
- serological examination;
- urine analysis; and
- any other test or examination that the medical advisory board deems appropriate.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-56. Examination after severe injury or knockout

(a) Any boxer who has sustained any severe injury or actual knockout shall at the direction of the ringside physician be taken to the nearest hospital and be thoroughly examined. The boxer or his manager or other representative shall insure that the boxer is examined pursuant to the direction of the ring physician.

(b) The boxer or his manager shall give to the commissioner or his representative a full report of the examination made by the hospital referred to above. The report is to be given to the commissioner or his representative as soon as possible, but not later than 25 days from the date of the examination.

(c) In the event that a boxer who has suffered a knockout or any severe injury has on such account been treated by his personal physician, he or his manager must give a copy of the physician's report to the commissioner or his representative as soon as possible, but not later than 25 days from the date of the examination.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-57. Examination of loser of 6 consecutive bouts

Any boxer who loses 6 consecutive fights, in any manner, must undergo a physical examination of the type required by Section 21a-196-55 of these regulations.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-58. Examination prior to boxing contest

(a) All boxers must be examined by a physician licensed to practice medicine in this state before entering into the ring and shall immediately file with the commissioner a written report of such examination.

(b) All boxers may be required to submit to a urine or blood analysis at the weigh-in, prior to his bout and/or after his bout.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-59. Special examination of a boxer

Any injury or illness sustained by a licensed boxer while in training (sparring) must be fully reported to the commissioner or his representative within 24 hours by the boxer or his licensed manager. The boxer must be examined by a physician licensed to practice medicine in this state and be approved by such physician to continue his training.

(Effective June 21, 1991; transferred July 27, 2007)

The Ring and Accessory Equipment

Sec. 29-143j-60. First aid kit

The chief second shall be required to have an adequate first aid kit with him in the corner during a boxing contest. The kit shall contain, among other things, sterile cotton and gauze, sterile applicators, ice bag, smelling salts containing ammonia or amyl nitrates, and rubber gloves. Each kit shall be subject to inspection at all times by the commissioner and his representative or the ringside physician.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-61. The gong

The gong must be metal, not less than 10 inches in diameter and must be attached securely on a level with the ring platform.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-62. Miscellaneous equipment

The promoter must provide a stretcher, oxygen, water buckets, powder resin, stools for each corner and such other equipment as is required for the proper conduct of a boxing contest.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-63. The ring

(a) The ring padding shall be in good and safe condition, at least 1 inch in thickness throughout, laid evenly and extending to and around the outside of the flooring and apron of the ring.

(b) All turnbuckles shall be properly padded.

(c) The ring apron should not be more than 36 inches wide.

(d) Ring posts shall be made of metal not less than three inches in diameter and must be protected by appropriate padding. The posts shall extend from the floor of the building to a height of 58 inches above the ring floor.

(e) There shall be 4 ring ropes and each not less than 1 inch thick in diameter; the lower rope shall be 18 inches above the ring floor, the second rope 30 inches above the ring floor, the third rope 42 inches above the ring floor and the fourth rope 54 inches above the ring floor. Each rope shall be wrapped in soft material.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-64. The scale

All scales used for any weigh-in must be approved by the commissioner or his representative.

(Effective June 21, 1991; transferred July 27, 2007)

Rules to Safeguard the Health of Boxers

Sec. 29-143j-65. Rules to safeguard the health of boxers

(a) If a boxer has competed in any jurisdiction in a bout scheduled for 6 rounds or more, he shall not be allowed to box in this state until 7 days (including the last day of the last bout) have elapsed since his last bout.

(b) If a boxer has competed in any jurisdiction in a bout scheduled for up to 5 rounds, he shall not be allowed to box in this state until 4 days (including the last day of the last bout) have elapsed since his last bout.

(c) Any licensee who has personal knowledge concerning a boxer's illness or injury must promptly furnish to the commissioner or his representative all known information concerning the illness or injury.

(d) Any boxer who is ill or who has suffered an injury will not be allowed to box in this State until he has been examined by a physician licensed to practice medicine in this State, and such physician has given the commissioner or his representative a report indicating that the boxer has recovered from his illness or injury.

(Effective June 21, 1991; transferred July 27, 2007)

Scoring System and Fouls

Sec. 29-143j-66. Counting and knockouts

(a) A referee may count a boxer out who falls to the floor claiming a foul because of a low blow. The referee may give a fallen boxer a brief rest period not to exceed 5 minutes. If the injured boxer cannot continue after 5 minutes the referee may disqualify the offending boxer. If the foul was unintentional and the bout has gone more than 3 rounds the winner of the bout will be decided by the tally of the judges' score cards. If the bout has not gone more than 3 rounds the bout will be scored a draw.

(b) A technical knockout is the ending of a bout by a referee for any reason other than a count out or disqualification.

(c) A boxer is down if any part of his body, except his feet, is on the ring floor, he is helpless on the ring ropes or he is rising from a down position.

(d) When a round in any boxing contest except the last round terminates before a boxer who has been knocked down has risen from the floor of the ring, the timekeeper's count shall be continued and, if the fallen boxer fails to rise before the count of 10, he shall be considered to have lost the bout by a knockout in the round just concluded.

(e) When a boxer is down the timekeeper shall at once commence calling off the seconds, indicating the count with a motion of his arm. The referee must immediately order the other boxer to a neutral corner and shall thereafter pick up the count from the timekeeper and indicate it with a motion of his arm. If a contestant is unable to continue at the count of 10, the referee shall declare the other boxer winner by a knockout.

(f) If a contestant who has been knocked or has fallen out of the ring during a contest fails to return to the ring on his feet, unassisted, before the expiration of 10 seconds, the referee shall count him out as if he were down.

(g) If a boxing contest is terminated between rounds, the knockout must be recorded as having taken place in the round just concluded. However, if the bell for the subsequent round has already sounded, the boxing contest ends in the subsequent round.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-67. Decision

(a) The judges shall mark their score cards in ink or indelible pencil at the end of each round, placing the number of points awarded in the appropriate columns. Each judge shall sign his score card.

(b) At the conclusion of the bout the judges shall tally up the total amount of points they have awarded each contestant and submit their score cards to the commissioner or his representative.

(c) The boxer who has been awarded the greatest number of points on the score cards of at least two of the three judges shall be declared the winner of the bout.

(d) In the event that the judges have scored the points of each boxer so as to constitute a draw, the referee shall declare the bout a draw.

(e) After the score cards have been verified by the commissioner or his representative the results are given to the announcer who shall announce the decision. In the event of a split decision the announcer shall announce, "Winner by a split decision."

(f) In all preliminary bouts the breakdown of points awarded each boxer by the judges will not be announced.

(g) In the main bout the announcer will announce the number of points awarded to each boxer by the judges.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-68. Fouls

(a) The following are major fouls and upon the occurrence of any major foul in any round the referee may disqualify the offending boxer and award the bout or any round thereof to the boxer who has been fouled:

- (1) hitting an opponent who is down or who is rising from down,
- (2) using a knee or elbow against an opponent,
- (3) purposely going down without being hit,
- (4) failure to heed the referee's warnings, and
- (5) any dangerous and unsportsmanlike conduct in the ring.

(b) The following are minor fouls and it is within the discretion of the referee as to whether the offending boxer should merely be warned or should lose the round because of the commission of a minor foul:

- (1) holding,
- (2) deliberately maintaining a clinch,
- (3) hitting with the inside of the hand, the butt of the hand or the wrists,
- (4) head butts,
- (5) backhand blows,
- (6) low blows,
- (7) hitting or “flicking” with an open glove,
- (8) wrestling or roughing at the ropes,
- (9) deliberately striking at that part of the body over the kidneys,
- (10) use of a pivot blow or rabbit punch,
- (11) hitting on the break, and
- (12) hitting after the bell.

(c) Holding and clinching are not considered boxing and in the case of clinching, the referee shall order the boxers to “BREAK” and each boxer shall immediately step back at least two steps before they resume boxing. There shall be no hitting after the referee has ordered “BREAK.”

(d) Boxers may continue to box at close quarters where both arms are free and not held, but holding with one hand and boxing with the other is forbidden. A boxer whose arm is being held has the right to box with his free hand until the referee orders a break.

(e) If in any bout a boxer is penalized with the loss of two or more rounds because of fouls, the referee must report the matter to the commissioner or his representative within 24 hours.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-69. Head butt rule

If a boxer cannot continue in the bout due to any injury received as the result of an unintentional head butt then the bout shall be terminated. If the bout has gone more than 3 rounds the winner of the bout shall be determined by the tally on the judges’ score cards. If the bout has not gone more than 3 rounds then the bout shall be declared a draw.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-70. Points

(a) In all non-championship bouts and all State championship bouts the judges will use a 5-point must system. Five points must be awarded to the better man.

(b) In all other bouts the judges may use a 5-point or 10-point system at the discretion of the commissioner or his representative.

- (c) Points will be awarded for
- (1) clean hitting,
 - (2) effective aggressiveness,
 - (3) ring generalship, and
 - (4) defense.

(Effective June 21, 1991; transferred July 27, 2007)

Weight Classifications

Sec. 29-143j-71. Weights for championship bouts

The weight limit for each boxer in each class is as follows:

POUNDS	CLASSIFICATION
112	Flyweight
118	Bantamweight
126	Featherweight
130	Junior Lightweight
135	Lightweight
140	Junior Welterweight
147	Welterweight
155	Junior Middleweight
160	Middleweight
175	Light Heavyweight
Over 175	Heavyweight

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-72. Weights for non championship fights over 4 rounds

The following variances of weights between boxers may be permitted:

POUNDS	CLASSIFICATION
5	Flyweight
7	Bantamweight
8	Featherweight
10	Lightweight
12	Welterweight
13	Middleweight
14	Light Heavyweight
No Limit	Heavyweight

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-73. Weight limits for 4 round bouts

In all four round bouts, except in the light heavyweight and heavy weight classes, the difference between the weights of the boxers shall not exceed 5 pounds.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-74. Weights at which matchmakers may make bouts

Matchmakers are permitted to make matches at the following weights only (in pounds): 112, 115, 118, 122, 126, 130, 135, 140, 147, 150, 155, 160, 165, 175 and over.

(Effective June 21, 1991; transferred July 27, 2007)

Amateur Boxing

Sec. 29-143j-75.

Repealed, July 27, 2007.

Sec. 29-143j-76. Who must be registered

(a) All facilities, all amateur boxing associations, and all schools, colleges, and universities having a boxing program must be registered.

(b) Facilities will be registered in accordance with Section 21a-196-42 of these Regulations.

(c) In order to be registered, all associations, schools, colleges and universities must send the following to the commissioner on January 2nd of each calendar year:

- (1) name, address and telephone number of the organization,
 - (2) name, title and telephone number of the individual in charge,
 - (3) address of facility if different from the address of the organization,
 - (4) a copy of the rules and regulations under which the boxing program operates,
 - (5) a certificate of good standing from the boxing organization which the association, school, college or university belongs to, and
 - (6) a roster of the amateur boxers participating in the program.
- (Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-77.

Repealed, July 27, 2007.

Sec. 29-143j-78. Notice

(a) Every association, school, college or university shall notify the commissioner or such commissioner's representative at least 30 days prior to an amateur boxing contest or a sparring match taking place in this state. The notice shall contain the date, time and location of the event and contact information for event organizers.

(b) At least twice a year every association, school, college or university shall give to the commissioner or his representative a listing showing the complete record of each and every amateur boxer enrolled in its program.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Sec. 29-143j-79. Minimum age of amateur boxing participants

Pursuant to the authority granted to the commissioner in section 29-143k of the Connecticut General Statutes the minimum age of participants in amateur boxing shall be eight (8) years of age. All participants in amateur boxing under the age of eighteen (18) shall have the written permission of a parent or guardian to participate.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Challenges

Sec. 29-143j-80. Challenges for a world title

A challenge for a world championship must be accompanied by deposits in the following amount per class:

- (a) \$1,000.00 flyweight, bantamweight and featherweight;
- (b) \$1,500.00 lightweight;
- (c) \$2,000.00 welterweight and middleweight;
- (d) \$2,500.00 light heavyweight; and
- (e) \$5,000.00 heavyweight

Each deposit must be by certified check or bank check made payable to the commissioner. No deposit is required for a State or New England Championship.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-81. Procedure

(a) Upon receipt of such challenge the commissioner shall forward the challenge to the champion and issue a press release to that effect.

(b) The champion has 20 days after his receipt of such notice to enter into a contract with the challenger.

(c) Failure to enter into a contract with the challenger shall result in the title being forfeited, unless the champion is prevented by circumstances beyond his control, in which case the time may be extended by the commissioner or his representative.

(d) In the event that more than one suitable contender's challenge is received by the commissioner and forwarded to the champion, the champion may select to defend his title against any one of such challengers.

(e) In the event that the champion is permanently unable to physically qualify for the defense of his title, the commissioner shall forfeit his championship.

(f) In each defense of his title the champion must be at the weight required by the class for which he holds the title.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-82. Contract

On the date of the signing of the contract to box for said championship, the boxers and the promoter will each post performance bonds with the commissioner or his representative in the following amounts per class:

- (a) \$1,000.00 flyweight, bantamweight and featherweight;
- (b) \$1,500.00 lightweight;
- (c) \$2,000.00 welterweight and middleweight;
- (d) \$2,500.00 light heavyweight; and
- (e) \$5,000.00 heavyweight.

The performance bonds are to insure that each of the boxers will appear and make the proper weight, and that the promoter will fulfill his obligations. In the event that a forfeit is declared the performance bonds will be distributed equally between the non-forfeiting parties.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-83. How a title can be won or lost

(a) A championship may only be won by a knockout, technical knockout or a decision.

(b) A championship may be lost by a knockout, technical knockout, decision, default, forfeit or the inability to make the proper weight.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-84. Multiple championships

No individual may hold a championship title in two or more classes at the same time. The holder of one such championship title may enter a boxing contest for the championship title of another class. In the event that such individual wins such championship title in such other class, his original championship is automatically forfeited.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-85. When a boxer must defend a title

(a) With the exception of champions in the armed forces, a boxer holding a championship title must defend his title against a suitable contender within a period of 6 months after winning or after last defending it, or his title may be vacated by the commissioner.

(b) Where a title has been vacated, any boxer in the same class who is considered by the commissioner or his representative to be a suitable contender may forward to the commissioner a request to box fight for the vacant title.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-86. Weight

Whenever a recognized holder of a championship engages in a championship contest in this State, he must be at the weight required by the class for which he

holds the championship, except where a champion of one class competes as a contender for the championship in another class.

(Effective June 21, 1991; transferred July 27, 2007)

New England Championship

Sec. 29-143j-87. New England championship

The commissioner shall have the authority to enter into an agreement with the other five New England States to establish rules concerning the qualifications and procedures relating to recognizing New England Champions in different weight classes.

(Effective June 21, 1991; transferred July 27, 2007)

Special Rules for Outdoor Contests

Sec. 29-143j-88. Application of regulations

(a) The following provisions pertain to outdoor boxing contests.

(b) In the event of inclement weather immediately before or during the course of any outdoor contest, except during the course of the main bout, the promoter may postpone the show to such date, time and place as approved by the commissioner or his representative. An announcement giving the full details of the postponement shall forthwith be made by the promoter, and any ticket holder desiring a full refund shall be given one immediately by presenting his ticket to the box office, except if the main bout has already been held or will be held on one of the successive rain out dates indicated on the ticket. All boxers who have fulfilled their boxing contracts before the event of inclement weather shall be paid in full.

(c) In the event of inclement weather the individual bouts may be rearranged or shortened by the promoter with the consent of the commissioner or his representative.

(d) In the event of inclement weather after the main bout is completed, the boxing contest shall be considered as also being completed.

(e) All boxers who were scheduled to compete but were unable to due to inclement weather shall be reimbursed for their expenses.

(f) In the event of inclement weather during a bout, the commissioner or his representative may end the bout. If the bout is two-thirds or greater of being completed then the bout shall be deemed as complete. If the bout is less than two-thirds complete then the bout shall be considered not to have taken place, and the boxers shall be only reimbursed for their expenses.

(Effective June 21, 1991; transferred and amended July 27, 2007)

Purpose

Sec. 29-143j-89. Purpose

The intent of these regulations is to provide a framework for the conduct and supervision of amateur and professional boxing. Particular emphasis is placed upon insuring that the sport of boxing is conducted in a manner that will provide the utmost safety to the participants. These regulations delineate the powers and procedures of the commissioner, the licensing requirements, the rules to insure safety, and the required conduct of the participants, officials and other persons connected with boxing. Upon the specific request of a party the commissioner may waive all or part of these regulations, except any provision required by the general statutes, if the commissioner determines that the bout or contest will be conducted in a manner

that will still provide for the utmost safety to the participants and will maintain the professionalism of the sport of boxing.

(Effective June 21, 1991; transferred July 27, 2007)

Sec. 29-143j-90. Requirements for hosting a sparring match

(a) Before an organization, gymnasium or independent club may host a sparring match, such organization, gymnasium or independent club shall register with the commissioner in the manner provided by section 29-143j of the Connecticut General Statutes.

(b) Such organization, gymnasium or independent club shall provide the commissioner with the following information:

(1) the name, address and telephone number of the organization;

(2) the name, title and telephone number of the individual in charge of such organization;

(3) a copy of any rules and regulations under which the organization's sparring program operates;

(4) a certificate of good standing from any sanctioning organizations to which the organization, gymnasium or independent club may belong;

(5) a roster of sparring partners participating in the program; and

(6) such other relevant information as the commissioner may require to determine whether such organization, gymnasium or independent club is qualified to host a sparring match.

(c) The Department of Public Safety may inspect the facility where such sparring match is to be held.

(d) The organization, gymnasium or independent club hosting such sparring match shall provide the commissioner with the following information regarding the facility where the match is scheduled:

(1) the name and address of the facility;

(2) the name, title and telephone number of the person in charge of such facility;

(3) certification from the local building official attesting to the suitability of the facility for the conduct of a sparring match;

(4) certification from the local fire marshal attesting to the fact that the facility is in compliance with the Connecticut State Fire Safety Code; and

(5) a full description of the facility's sanitary and emergency medical facilities.

(e) The commissioner shall determine whether an organization, gymnasium or independent club is qualified to host a sparring match on the basis of information provided by such organization, gymnasium or independent club, together with the results of any inspections or investigations that the commissioner may cause to be conducted. The commissioner may deem an organization, gymnasium or independent club qualified to host a sparring match if the organization, gymnasium or independent club protects the health and safety of participants.

(Adopted effective July 27, 2007)

Sec. 29-143j-91. Jurisdiction

Notwithstanding sections 21a-1-5 and 21a-1-6 of the Regulations of Connecticut State Agencies, as revised to July 27, 1984, the Commissioner of Public Safety shall have sole jurisdiction over all amateur and professional boxing and sparring matches conducted within the state.

(Adopted effective July 27, 2007)

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Bail Enforcement Agent

Sec. 29-152o-1. Application procedure for bail enforcement agent license

(a) Any person desiring to engage in the business of a bail enforcement agent shall complete form DPS-10-c (Rev. 7/97) as provided by the Commissioner of Public Safety. Each applicant for a license shall provide the Commissioner with the requested documents and records as specified in the application form.

(b) An application form may be obtained from the Department of Public Safety, Division of State Police, Special Licensing and Firearms Unit or from any State Police Troop.

(c) Upon receipt of an application, the Department of Public Safety, Division of State Police, Special Licensing and Firearms Unit, shall review such application for completeness and for compliance with the provisions of sections 29-152o-1 to 29-152o-8, inclusive, of the Regulations of Connecticut State Agencies.

(Adopted effective October 1, 1997)

Sec. 29-152o-2. Fee and term of license

The fee for a license to do business in this state as a bail enforcement agent shall be one hundred dollars (\$100.00). The fee shall be payable by a certified check or money order made payable to the Department of Public Safety. Each such license shall be for a term not to exceed one year.

(Adopted effective October 1, 1997)

Sec. 29-152o-3. Persons disqualified

(a) No person who has been convicted of a felony or a crime involving moral turpitude shall be licensed to do business as a bail enforcement agent in this state.

(b) No person engaged in law enforcement or vested with police powers shall be licensed to do business as a bail enforcement agent.

(Adopted effective October 1, 1997)

Sec. 29-152o-4. Course of study in the criminal justice system

Within five (5) years prior to the date of his application, an applicant for a bail enforcement agent license shall have successfully completed a course in the criminal justice system consisting of not less than twenty (20) hours of study approved by the Commissioner of Public Safety. In determining whether he shall approve a course in the criminal justice system, the commissioner shall take into consideration the topics, if any, of the course and their relationship to the business of a bail enforcement agent. A course of study of not less than twenty (20) hours approved by the commissioner in one or a combination of any of the following, or their equivalent, shall meet the requirement:

- (1) Use of force to make an arrest or to prevent escape;
- (2) Laws of arrest;
- (3) Criminal procedure and laws concerning searches and seizures; or
- (4) Constitutional law or the criminal justice system.

(Adopted effective October 1, 1997)

Sec. 29-152o-5. Course of study in safety and use of firearms

(a) In accordance with the provisions of section 10 of public act 97-287, no bail enforcement agent licensed under sections 2 to 5, inclusive, of said public act shall carry a pistol, revolver or other firearm while engaging in the business of a bail enforcement agent or while traveling to or from such business unless he obtains a

special permit from the Commissioner of Public Safety in accordance with the provisions of subsection (b) of this section.

(b) The commissioner may grant to any bail enforcement agent licensed under sections 2 to 5, inclusive, of public act 97-287, a permit to carry a pistol or revolver or other firearm while engaging in the business of bail enforcement agent or while traveling to or from such business, provided that he has proven to the satisfaction of the commissioner that he has successfully completed a course, approved by the commissioner, of training in the safety and use of firearms.

(c) For purposes of this section, any person who has successfully completed a course conducted by a school approved by the commissioner under the provisions of section 29-161b of the Connecticut General Statutes and any regulation adopted under said section, shall be deemed to have met the requirements of this section.

(Adopted effective October 1, 1997)

Sec. 29-152o-6. Renewal of license

Each person licensed as a bail enforcement agent may apply for a renewal of his license upon renewal application forms provided by the Commissioner of Public Safety not later than sixty (60) days prior to the expiration of his license. For purposes of this section, a bail enforcement agent shall complete form DPS-10-c (Rev. 7/97) to apply for renewal of his license to engage in the business of a bail enforcement agent. Prior to reviewing such a license, the commissioner shall, from information disclosed on such forms, determine whether or not such agent's fitness to continue in the business of a bail enforcement agent has changed since the issuance of any prior license.

(Adopted effective October 1, 1997)

Sec. 29-152o-7. Fee and term for renewal of license

The fee for renewal of a bail enforcement agent's license shall be one hundred dollars (\$100.00). The fee shall be payable by a certified check or money order made payable to the Department of Public Safety. Each such license shall be for a term not to exceed one year.

(Adopted effective October 1, 1997)

Sec. 29-152o-8. Suspension or revocation of a bail enforcement agent's license

(a) Any bail enforcement agent's license may be suspended or revoked by the Commissioner of Public Safety, provided notice shall have been given to the licensee to appear before the commissioner to show cause why the license should not be suspended or revoked, upon a finding by the commissioner that:

(1) The licensee has violated any of the terms or provisions of sections 1 to 10, inclusive, of public act 97-287 or sections 29-152o-1 to 29-152o-8, inclusive, of the Regulations of Connecticut State Agencies;

(2) The licensee has practiced fraud, deceit or misrepresentation;

(3) The licensee has made a material misstatement in the application for issuance or renewal of his license;

(4) The licensee has demonstrated incompetence or untrustworthiness in the conduct of his business;

(5) The licensee has been convicted of a felony or other crime affecting his honesty, integrity or moral fitness.

(b) Any party aggrieved by an order of the commissioner under subsection (a) of this section may appeal therefrom in accordance with the provisions of section

4-183 of the Connecticut General Statutes, except venue for such appeal shall be in the judicial district of Hartford-New Britain.

(c) In accordance with the provisions of section 4-182(c) of the Connecticut General Statutes, if the Department of Public Safety finds that public health, safety or welfare imperatively requires emergency action, and incorporates a finding to that effect in its order, summary suspension of a bail enforcement agent license may be ordered pending proceedings for revocation or other action.

(Adopted effective October 1, 1997)

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PART I**Private Detective and Private Detective Agency****Sec. 29-161-1. Definitions**

As used in sections 29-161-1 to 29-161-5, inclusive, of the Regulations of Connecticut State Agencies, “department” means the Department of Public Safety.

(Adopted effective June 29, 2007)

Sec. 29-161-2. Requirements for licensing as a private detective or private detective agency

(a) An applicant for licensing as a private detective or private detective agency or the person applying on behalf of an association, corporation or partnership for licensing as a private detective agency shall be not less than twenty-five (25) years of age and of good moral character. Such applicant shall have had at least ten (10) years of full-time employment as a state or municipal police officer, or at least five (5) years of full-time employment as a licensed private detective or investigator, operator of a detective agency, detective or investigator with a federal, state or local law enforcement agency or as a municipal fire investigator.

(b) An application by an individual or by an association, corporation or partnership shall be made on forms prescribed by the commissioner and in the manner provided by section 29-155 of the Connecticut General Statutes. The application fee provided in section 29-155c of the Connecticut General Statutes, payable to the Department of Public Safety with a cashier’s check, money order or by such other method as the commissioner may prescribe, shall accompany the application. In addition, an applicant shall return all completed state and federal fingerprint cards, together with the appropriate fee per set, which shall be paid with a cashier’s check or money order payable to the Department of Public Safety, or by such other payment method as the commissioner may prescribe. All supporting documentation that is required to be provided with such application shall be submitted to the department not later than sixty (60) days after the date that the application is filed.

(c) In addition to the items provided in subsection (b) of this section, an applicant shall provide the following documentation:

(1) Motor vehicle operator’s records for the previous three years from any state in which the applicant resided during that period and a copy of the applicant’s current motor vehicle operator’s license;

(2) Copy of his or her DD-214 or other reliable documentation of military service, with reenlistment codes, if applicable;

(3) Credit bureau report prepared no more than six (6) months before the date of application for an individual applicant;

(4) Copy of a high school diploma, General Equivalency Degree (GED), college transcript or college degree, or proof of training as a private detective or private investigator, such as course transcripts or certificates;

(5) Proof of citizenship or the right to work in this country;

(6) If applicable, proof of employment as a private detective or private investigator, including length of service, title or titles held, duties performed in each position held, date of retirement or other separation from employment and the reason for separation from the employment. For the purposes of this subdivision, such proof may include, but shall not be limited to, statements from current or former employers;

(7) If the applicant is an individual or an association, corporation or partnership, information regarding whether the applicant is or has been licensed by Connecticut

or another state. For applicants previously or currently licensed in another state, verification from the state licensing agency stating the applicant's name, type of license held, duration of license and proof that the license was or is in good standing;

(8) If the applicant is a corporation, proof of incorporation in Connecticut or authority to do business in Connecticut as a foreign corporation, issued by the Connecticut Secretary of the State's office;

(9) If the applicant is an association, corporation or partnership, such information as is required by section 29-155 of the Connecticut General Statutes; and

(10) Four letters of character reference drafted and signed by the authors shall be sent directly to the Special Licensing and Firearms Unit by the authors. Letters shall include the authors' addresses and telephone numbers and, where available, e-mail addresses. The Special Licensing and Firearms Unit shall not consider form letters or letters from the applicant's spouse, parents or other immediate family members.

(d) Oral interviews shall be scheduled once applications are complete.

(Adopted effective June 29, 2007)

Sec. 29-161-3. Requirements for registration of employees

(a) A private detective or private detective agency shall only use registered employees in fulfilling contracts with clients.

(b) An application for registration of an employee shall be made on forms prescribed by the commissioner, and in the manner and accompanied by the fee provided by section 29-156a of the Connecticut General Statutes. In addition, an applicant shall return completed state and federal fingerprint cards, together with the appropriate fee per set per employee, which shall be paid with a cashier's check or money order payable to the Department of Public Safety, or by such other payment method as the commissioner may prescribe. An applicant shall also provide proof of each employee's citizenship or right to work in this country.

(Adopted effective June 29, 2007)

Sec. 29-161-4. Records retention requirements

A private detective or private detective agency shall maintain business records for not less than three (3) years. For the purposes of this section, business records shall include, but shall not be limited to, records regarding licensing as a private detective or private detective agency, contracts with clients, investigative reports and personnel records.

(Adopted effective June 29, 2007)

Sec. 29-161-5. Civil penalties

(a) Civil penalties in amounts ranging from \$500 to \$5,000 may be assessed against a licensee, corporate officer or association or partnership member of the licensee for any violation of sections 29-153 to 29-161, inclusive, of the Connecticut General Statutes including, but not limited to, the specific offenses described as follows:

(1) Failure to state trade name or corporation name;

(2) Failure to provide 30-day written notice to the department of changes in liability insurance or the surety bond posted;

(3) Failure to allow the department to inspect, review or copy records that are the subject of a complaint;

(4) Failure to display the license certificate or copies thereof in a conspicuous location within the business office and suboffices;

(5) Failure to display the licensee identification card issued by the department when engaged in the activities of the licensed business;

(6) Failure to register nonuniformed investigators, operators or agents with the department;

(7) Failure to provide five-day written notice to the department of the termination of a registered employee;

(8) Failure to issue an identification card to nonuniformed investigators, operators or agents;

(9) Failure to provide five-day written notice to the department of the location of a suboffice;

(10) Engaging in fraudulent or deceitful conduct or making deliberate misrepresentations as to any material fact;

(11) Failure to comply with records retention requirements; or

(12) Engaging in any misconduct that would constitute a basis for a license to be suspended or revoked, as provided in section 29-158 of the Connecticut General Statutes.

(b) Civil penalties in amounts ranging from \$500 to \$5,000 may be assessed against a nonuniformed investigator, operator or agent of a licensee for any violation of sections 29-153 to 29-161, inclusive, of the Connecticut General Statutes including, but not limited to, the specific offenses described as follows:

(1) Failure of a nonuniformed investigator, operator or agent to carry an identification card; or

(2) Unauthorized release of information.

(c) Civil penalties in amounts ranging from \$500 to \$5,000 may be assessed against a licensee, corporate officer or association or partnership member of the licensee or a nonuniformed investigator, operator or agent of a licensee for any violation of sections 29-153 to 29-161, inclusive, of the Connecticut General Statutes including, but not limited to, falsification of records submitted to the department.

(d) Civil penalties in amounts ranging from \$500 to \$5,000 may be assessed against any person for any violation of sections 29-153 to 29-161, inclusive, of the Connecticut General Statutes including, but not limited to, operating without a license.

(Adopted effective June 29, 2007)

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PART II

Security Services and Security Officers

Sec. 29-161x-1. Requirements for licensing as a security service

(a) An individual applicant for licensing as a security service or the person applying on behalf of an association, corporation or partnership, provided that such person is an officer or member of such association, corporation or partnership, shall demonstrate to the satisfaction of the commissioner the experience prescribed in section 29-161h of the Connecticut General Statutes, as provided in subsection (c) of this section.

(b) An application by an individual or an association, corporation or partnership shall be made on forms prescribed by the commissioner and in the manner provided in section 29-161k of the Connecticut General Statutes. The application fee provided in section 29-161n of the Connecticut General Statutes, payable to the Department of Public Safety by cashier's check, money order or by such other method as the commissioner may prescribe, shall accompany such application. In addition, an applicant shall return completed state and federal fingerprint cards, together with the appropriate fee per set, which shall be paid with a cashier's check or money order payable to the Department of Public Safety, or by such other payment method as the commissioner may prescribe. All supporting documentation that is required to be provided with such application shall be submitted to the department not later than sixty (60) days after the date that the application is filed.

(c) In addition to the items provided in subsection (b) of this section, an applicant or person applying on behalf of an association, corporation or partnership shall provide the following documentation:

(1) Motor vehicle operator's records for the previous three (3) years from any state in which the applicant resided during that period and a copy of the applicant's current motor vehicle operator's license;

(2) Copy of the applicant's DD-214 or other reliable documentation of military service, with reenlistment codes, if applicable;

(3) Credit bureau report prepared not more than six (6) months before the date of application for an individual applicant;

(4) Copy of a high school diploma, General Equivalency Degree (GED), college transcript or college degree, and evidence of training related to the security industry or law enforcement, such as course transcripts or certificates;

(5) Proof of citizenship or right to work in this country;

(6) Proof of employment in the security industry or law enforcement agency, including length of service, title or titles held, duties performed in each position held, date of retirement or other separation from employment and the reason for separation from the employment. For the purposes of this subdivision, examples of such proof may include, but shall not be limited to, written statements from current or former employers;

(7) If the applicant is an individual or an association, corporation or partnership, information regarding whether the applicant is or has been licensed by Connecticut or another state. For applicants previously or currently licensed in another state, verification from the state licensing agency stating the applicant's name, type of license held, duration of license and proof that the license was or is in good standing;

(8) If the applicant is a corporation, proof of incorporation in Connecticut or authority to do business in Connecticut as a foreign corporation, issued by the Connecticut Secretary of the State's office;

(9) If the applicant is an association, corporation or partnership, information from each individual who composes or intends to compose such association, corporation or partnership, as provided by sections 29-161i and 29-161k of the Connecticut General Statutes; and

(10) Four letters of character reference drafted and signed by the authors and sent directly to the Special Licensing and Firearms Unit by the authors. Letters shall include the authors' addresses and telephone numbers and, where available, e-mail addresses. The Special Licensing and Firearms Unit shall not consider form letters or letters from the applicant's spouse, parents or other immediate family members.

(d) Oral interviews shall be scheduled once applications are complete.

(Adopted effective June 29, 2007)

Sec. 29-161x-2. Requirements for licensing and registration as a security officer; proof of training

(a) An application shall be made on forms prescribed by the commissioner and in the manner provided in section 29-161q of the Connecticut General Statutes, together with the fee set forth in such section. In addition, an applicant shall return all completed state and federal fingerprint cards, together with the appropriate fee per set, which shall be paid with a cashier's check or money order payable to the Department of Public Safety, or by such other payment method as the commissioner may prescribe.

(b) Before he or she may be licensed by the commissioner, a security officer shall receive the training provided in section 29-161x-4 of the Regulations of Connecticut State Agencies. The commissioner may issue such license if the commissioner determines that the applicant's training or experience satisfies the requirements set forth in section 29-161x-4 of the Regulations of Connecticut State Agencies.

(c) The licensee shall submit proof of the training received by an employee on such forms as the commissioner may prescribe.

(d) Immediately upon hiring a licensed security officer, or upon licensing by the commissioner following training, the employer shall register the security officer as provided in section 29-161q of the Connecticut General Statutes.

(Adopted effective June 29, 2007)

Sec. 29-161x-3. Records retention requirements

(a) A security service employer shall maintain documents, business records or training records for not less than three (3) years.

(b) Each instructor shall maintain training records of such instructor's students for six (6) years, and such records shall be made available for inspection, review or copying by sworn members of the Department of Public Safety, Division of State Police.

(Adopted effective June 29, 2007)

Sec. 29-161x-4. Required training; approval of training courses

(a) An applicant for initial licensing shall successfully complete an eight-hour course in those subjects prescribed by section 29-161q of the Connecticut General Statutes as follows:

- (1) Basic First Aid;
- (2) Search and Seizure Laws and Regulations;
- (3) Use of Force;
- (4) Basic Criminal Justice; and
- (5) Public Safety Issues.

(b) An applicant for initial licensing shall achieve a minimum score of 70 percent on a written examination.

(c) Course approval

(1) No course of instruction in the subjects required by section 29-161q of the Connecticut General Statutes may be provided to applicants until the commissioner approves the course.

(2) An applicant for approval of a course of instruction shall submit to the Special Licensing and Firearms Unit a written lesson plan and the names and qualifications of all persons who will serve as instructors for the course.

(3) An instructor shall demonstrate five (5) years of experience as an instructor or training manager in the security services industry, or equivalent experience or training.

(4) A first aid instructor shall demonstrate successful completion of an appropriate first aid instruction or emergency medical training course offered by the American Red Cross or such other provider as the commissioner may approve.

(Adopted effective June 29, 2007)

Sec. 29-161x-5. Requirement for uniformed and nonuniformed security officers to carry Department of Public Safety-issued identification card

All uniformed and nonuniformed security officers shall carry the prescribed Department of Public Safety-issued identification card at all times when performing duties for such security officer's employer.

(Adopted effective June 29, 2007)

Sec. 29-161x-6. Requirement for type of badge to be worn by uniformed security officer

The prescribed badge shall be rectangular in shape, not less than two (2) inches in width, and not less than two and one-half (2.5) inches in height. The badge shall have straight sides, top and bottom. The badge shall be free of protruding angles or design on all sides. The badge shall contain the inscription of "security" and the licensee's name and state license number, which shall be sufficiently prominent to be identifiable at all times. The badge shall be metal or woven. Silk screening or any other similar method are not acceptable.

(Adopted effective June 29, 2007)

Sec. 29-161x-7. Inspection of security officers by Department of Public Safety personnel

In order to confirm adherence to sections 29-161g through 29-161x of the Connecticut General Statutes, sworn members of the Department of Public Safety, Division of State Police, may, as they deem necessary, inspect any security officer or officers at any assigned location while such security officer or officers are performing their duties.

(Adopted effective June 29, 2007)

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PART III

Permit Requirements for Armed Security Personnel Firearms Safety Courses

Sec. 29-161z-1. Registration of security personnel

An application for registration of security personnel carrying a firearm shall be made on forms prescribed by the commissioner and in the manner provided in section 29-161y and 29-161q of the Connecticut General Statutes.

(Adopted effective June 29, 2007)

Sec. 29-161z-2. Permit to carry firearms

(a) An employee of a licensed security service or firm or corporation hired to perform security services, who will carry a pistol, revolver or other firearm in the course of or while traveling to or from such employee's employment, shall successfully complete a course of instruction in firearms training and obtain from the commissioner the permit provided in section 29-161z of the Connecticut General Statutes. Such employee also shall complete an annual four-hour refresher course, the contents of which shall be determined by the commissioner.

(b) An applicant for the permit provided in subsection (a) of this section shall achieve a minimum score of 70 per cent on a written examination.

(c) When an employee of a licensed security service or firm or corporation hired to perform security services carries a pistol, revolver or other firearms in the course of or while traveling to or from such employee's employment, the permit provided in this section shall be carried on such employee's person and shall be displayed to any sworn member of the Department of Public Safety, Division of State Police, or organized municipal police department.

(Adopted effective June 29, 2007)

Sec. 29-161z-3. Approval of schools, institutions or organizations offering firearms safety courses

(a) No course of instruction on firearms safety for security personnel carrying firearms or refresher course may be offered until the commissioner approves such course or refresher course.

(b) An applicant for approval of a course of instruction or refresher course shall submit to the commissioner a written lesson plan and the names and qualifications of all persons who will serve as instructors.

(Adopted effective June 29, 2007)

Sec. 29-161z-4. Contents of course

(a) The uniformed or nonuniformed security officer handgun course shall include range qualification and contain at least eight (8) hours of classroom instruction on subjects to be determined by the commissioner. Subjects covered may include, but shall not be limited to:

- (1) An Introduction to Handguns, Familiarization and Nomenclature;
- (2) Handgun safety, including Home, Range and Worksite;
- (3) Basic Fundamentals of Handgun Shooting;
- (4) Handgun Liability/Use of Force/Use of Deadly Force;
- (5) Handgun Practical Shooting Techniques, Positions/Drawing/Reloading;
- (6) Handgun Care/Cleaning and Safe Storage; and
- (7) Handgun (long guns, if taught), written exam to cover topical material, with a minimum passing score of 70 per cent.

(b) If optional rifle training and qualification is taught, it shall include range qualification for rifles and shotguns and classroom instruction on subjects to be determined by the commissioner. Subjects covered may include, but shall not be limited to:

- (1) An Introduction to Rifles, Familiarization and Nomenclature;
- (2) Rifle Safety, including Home, Range and Worksite;
- (3) Basic Fundamentals of Rifle Shooting;
- (4) Rifle Liability/Use of Force/Use of Deadly Force;
- (5) Rifle Practical Shooting Techniques, Positions/Drawing/Reloading; and
- (6) Rifle Care/Cleaning and Safe Storage.

(c) In addition to range qualification, subjects to be covered in the annual four-hour refresher course may include, but shall not be limited to:

- (1) Firearms Safety, including Range, Worksite and Home, Handgun Care, Cleaning, and Safe Storage;
- (2) Basic Fundamentals of Handgun Shooting, Handgun Practical Shooting Techniques, Positions, Drawing, and Reloading;
- (3) Firearms Liability/Use of Force/Use of Deadly Force, including review of Connecticut's Firearms Laws; and
- (4) Handgun (long guns, if taught), written exam to cover topical material, with a minimum passing score of 70 per cent.

(Adopted effective June 29, 2007)

Sec. 29-161z-5. Instructor training and record retention requirements

(a) The course administrator shall maintain all training records for six (6) years. Such records shall be made available for inspection by sworn members of the Department of Public Safety, Division of State Police. Such training records shall include, but not be limited to, written examinations and test scores.

(b) An instructor shall obtain a pistol permit as provided by section 29-28 of the Connecticut General Statutes and shall provide proof of successful completion of the course of instruction required by said section 29-28.

(c) An instructor shall complete an instructor information sheet and submit to state and national criminal history records checks.

(Adopted effective June 29, 2007)

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ELEVATORS AND ESCALATORS

Secs. 29-192-A1—29-192-C3.

Repealed, June 2, 1999.

Connecticut Safety Code For Elevators and Escalators

Sec. 29-192-1d. Introduction

Regulations of the Department of Public Safety, Sections 29-192-1d to 29-192-6d, inclusive, shall be known as the Connecticut Safety Code for Elevators and Escalators.

(Adopted effective June 2, 1999)

Sec. 29-192-2d. Authority having jurisdiction

For the purposes of regulations adopted by reference pursuant to Section 29-192 of the Connecticut General Statutes, “authority having jurisdiction” means the Commissioner of Public Safety. The Commissioner of Public Safety is the authority having jurisdiction regarding the proper administration, application, interpretation and modification of the requirements contained within Sections 29-192-1d to 29-192-6d, inclusive.

(Adopted effective June 2, 1999)

Sec. 29-192-3d. Owner or operator responsibility

The owner or operator of any elevator or escalator subject to Sections 29-192-1d to 29-192-6d, inclusive, shall assure the following:

- (a) That the elevator or escalator is registered in accordance with the provisions of Section 29-194 of the Connecticut General Statutes; and
- (b) That the elevator or escalator is properly maintained and meets all manufacturer safety requirements.

(Adopted effective June 2, 1999)

Sec. 29-192-4d. Adopted standards

(a) The following national standards, together with all addenda and amendments thereto, are hereby adopted as part of Sections 29-192-1d to 29-192-6d, inclusive:

ASME A17.1-1996, Safety Code for Elevators and Escalators;

ASME A17.1a-1997, Safety Code for Elevators and Escalators, Addenda;

ASME A17.1b-1998, Safety Code for Elevators and Escalators, Addenda; and

ANSI A10.4-1990, American National Standard Safety Requirements for Personnel Hoists and Employee Elevators for Construction and Demolition Operations.

(b) The standards adopted by The American Society of Mechanical Engineers are available by writing to ASME Order Department, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

(c) ANSI A10.4-1990 (product # 19530-0000) is available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201.

(Adopted effective June 2, 1999)

Sec. 29-192-5d. Key for emergency operation

The key required by Section 211, Rule 211.8, of ANSI A17.1-1996 shall be the key known as the “Bridgeport Fire Department (BFD1)” key.

(Adopted effective June 2, 1999)

Sec. 29-192-6d. Connecticut supplement

ASME A17.1-1996, Safety Code for Elevators and Escalators, and addenda, are amended to meet the needs of Connecticut as follows:

NOTE: A section or subsection in the Connecticut Supplement preceded by the word “(Amd)” indicates the substitution of the text shown within the supplement for the corresponding section or subsection in ASME A17.1-1996 or addenda. A section or subsection preceded by the word “(Del)” indicates that the section or subsection in ASME A17.1-1996 or addenda is to be deleted without substituting new text.

PART I

**HOISTWAYS, HOISTWAY ENCLOSURES,
AND RELATED CONSTRUCTION FOR
ELECTRIC ELEVATORS**

**SECTION 106
PITS**

106.1b Design and Construction of Pits

(1) The construction of the pit walls, the pit floor, and any pit access doors (see Rule 106.1d) shall conform to rules 100.1 and 100.2.

(2) The floor to the pit shall be approximately level, except that:

(a) trenches or depressions may be provided for the installation of buffers, compensating sheaves and frames, and vertically sliding biparting hoistway doors where structural conditions make such trenches or depressions necessary;

(b) in existing buildings, where new elevators are installed or existing elevators are altered, existing foundation footings extending above the general level of the pit floor may remain in place, provided the maximum encroachment of such footings does not exceed 15 % of the cubic content of the pit and further provided that it is impracticable to remove the footing.

(Del) (3)

(4) Sumps in pits, where provided, shall be covered. The cover shall be level with the pit floor.

ROUTINE, PERIODIC, AND ACCEPTANCE INSPECTIONS AND TESTS

SECTION 1000

GENERAL REQUIREMENTS

(Del) Rule 1000.1 Persons Authorized to Make Inspections and Tests

(Del) 1000.1a Routine Inspections and Tests

(Del) 1000.1b Periodic Inspection and Tests

(Del) 1000.1c Acceptance Inspection and Tests

SECTION 1001**ROUTINE INSPECTION AND TESTS OF PASSENGER AND
FREIGHT ELECTRIC ELEVATORS**

(Amd) Rule 1001.1 Inspection and Test Periods

The routine inspection and tests of passenger and freight electric elevators shall be made in accordance with section 29-195 of the Connecticut General Statutes. All references to items are to items in A17.2.1, Inspectors' Manual for Electric Elevators.

NOTE [Rule 1001.1]: See Rule 1010.2 for private residence elevators.

SECTION 1004**ROUTINE INSPECTION AND TESTS OF PASSENGER AND
FREIGHT HYDRAULIC ELEVATORS**

(Amd) Rule 1004.1 Inspection and Test Periods

The routine inspection and tests of passenger and freight hydraulic elevators shall be made in accordance with section 29-195 of the Connecticut General Statutes. All references to items are to items in A17.2.2, Inspectors' Manual for Hydraulic Elevators.

NOTE [Rule 1004.1]: See Rule 1010.2 for private residence elevators.

SECTION 1007**ROUTINE INSPECTION AND TESTS OF ESCALATORS AND
MOVING WALKS**

(Amd) Rule 1007.1 Inspection and Test Periods

The routine inspection and tests of passenger and freight hydraulic elevators shall be made in accordance with section 29-195 of the Connecticut General Statutes. All references to items are to items in A17.2.3, Inspectors' Manual for Escalators and Moving Walks.

SECTION 1010**INSPECTION AND TESTS OF OTHER EQUIPMENT**

(Amd) Rule 1010.1 Sidewalk Elevator

Sidewalk elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Sections 1000 through 1006. Routine inspections shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements in Part IV. Any additional requirements for this equipment shall also be checked during these inspections and tests.

(Amd) Rule 1010.3 Hand Elevators

Hand elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Sections 1000 through 1003. Routine inspections shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements in Part VI. Any additional requirements for this equipment shall also be checked during these inspections and tests.

The driving-machine brake required by Rule 607.2 shall be tested with both empty car and rated load in the car.

(Amd) Rule 1010.6 Special Purpose Personnel Elevators

Special purpose personnel elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Sections 1000 through 1006. Routine inspections shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements in Part XV. Any additional requirements for this equipment shall also be checked during these inspections and tests.

(Amd) Rule 1010.7 Inclined Elevators

Inclined elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Sections 1000 through 1006. Routine inspections and shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements in Part XVII. Any additional requirements for this equipment shall also be checked during these inspections and tests.

(Amd) Rule 1010.8 Shipboard Elevators

Shipboard elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Sections 1000 through 1006. Routine inspections and tests shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements in Part XXII. Any additional requirements for this equipment shall also be checked during these inspections and tests.

(Amd) Rule 1010.9 Screw Column Elevators

Screw column elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Sections 1000 through 1006. Routine inspections and tests shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements in Part XVIII. Any additional requirements for this equipment shall also be checked during these inspections and tests.

(Amd) Rule 1010.11 Rooftop Elevators

Rooftop elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Sections 1000 through 1006. Routine inspections and tests shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements of Part XXIII. Any additional requirements for this equipment shall also be checked during these inspections and tests.

(Amd) Rule 1010.12 Rack and Pinion Elevators

Rack and pinion elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Sections 1000 through 1006. Routine inspections and tests shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements in Part XVI. Any additional requirements for this equipment shall also be checked during these inspections and tests.

(Amd) Rule 1010.13 Limited-Use/Limited Application Elevator

Limited-Use/Limited-Application elevators shall be subject to the applicable routine, periodic, and acceptance inspections and tests specified in Section 1000 through 1006. Routine inspections and tests shall be performed in accordance with section 29-195 of the Connecticut General Statutes.

The inspection and test requirements shall apply to the corresponding requirements in Part XXV. Any additional requirements for this equipment shall also be checked during these inspections and tests.

(Adopted effective June 2, 1999; amended June 1, 2001)

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**Vertical and Inclined Wheelchair Lifts and
Inclined Stairway Chairlifts**

Repealed 29-200-1—29-200-10

**Vertical and Inclined Wheelchair Lifts, Inclined Stairway Chairlifts and
Limited Use, Limited Access Elevators**

Definitions 29-200-1a

Installers 29-200-2a

Standards for installation. 29-200-3a

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Vertical and Inclined Wheelchair Lifts and Inclined Stairway Chairlifts

Secs. 29-200-1—29-200-10.

Repealed, March 30, 1999.

Vertical and Inclined Wheelchair Lifts, Inclined Stairway Chairlifts and Limited Use, Limited Access Elevators

Sec. 29-200-1a. Definitions

As used in sections 29-200-1a to 29-200-5a, inclusive, of the Regulations of Connecticut State Agencies, unless the context otherwise requires:

(1) “Lift” means vertical wheelchair lift, inclined wheelchair lift, or inclined stairway chairlift.

(2) “Vertical wheelchair lift” means a power passenger lift designed and used to raise or lower a person in a wheelchair vertically from one level to another.

(3) “Inclined wheelchair lift” means a power passenger lift installed on a stairway or an approved way designed and used to raise or lower a person in a wheelchair on an incline from one level to another.

(4) “Inclined stairway chairlift” means a power passenger lift installed on a stairway for raising and lowering a person from one floor to another.

(5) “Limited use, limited access elevator” means a power passenger elevator where the use and application is limited by size, capacity, speed, and rise, intended principally to provide vertical transportation for people with disabilities.

(Adopted effective March 30, 1999)

Sec. 29-200-2a. Installers

Installation of all lifts and limited use, limited access elevators shall be performed only by persons licensed in accordance with the provisions of Chapter 393 of the Connecticut General Statutes.

(Adopted effective March 30, 1999)

Sec. 29-200-3a. Standards for installation

(a) Each lift shall be installed in accordance with the provisions of ASME A18.1-2003, Safety Standard for Platform and Stairway Chairlifts.

(b) Each limited use, limited access elevator shall be installed in accordance with the provisions of section 5.2 OF ASME A17.1-2004, Safety Code for Elevators and Escalators.

(c) The ASME codes are available from The American Society of Mechanical Engineers, 3 Park Avenue, New York, NY 10016-5990.

(Adopted effective March 30, 1999; amended March 30, 2006)

Sec. 29-200-4a. Relationship with building and fire codes

All installations of lifts and limited use, limited access elevators shall meet all applicable requirements of the State Building Code and State Fire Safety Code adopted under authority of Sections 29-252 and 29-292, respectively, of the Connecticut General Statutes. Permit applications to install such lifts and limited use, limited access elevators shall be submitted to the local building official.

(Adopted effective March 30, 1999)

Sec. 29-200-5a. Discontinuance of operation

Any limited use, limited access elevator deemed by the Commissioner of Public Safety to be dangerous to life and property shall be subject to discontinuance of

operation in accordance with the provisions of Section 29-197 of the Connecticut General Statutes.

(Adopted effective March 30, 1999)

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Passenger Tramway Safety

Sec. 29-203-1.

Repealed, October 30, 1998

Connecticut Safety Code for Passenger Tramways

Sec. 29-203-1a. Introduction

Regulations of the Department of Public Safety, Sections 29-203-1a to 29-203-3a, inclusive, shall be known as the Connecticut Safety Code for Passenger Tramways.
(Effective October 30, 1998)

Sec. 29-203-2a. Authority having jurisdiction

For the purposes of regulations adopted by reference pursuant to Section 29-203 of the Connecticut General Statutes, “authority having jurisdiction” means the Commissioner of Public Safety. The Commissioner of Public Safety is the authority having jurisdiction regarding the proper administration, application, interpretation and modification of the requirements contained within Sections 29-203-1a to 29-203-3a, inclusive.

(Effective October 30, 1998)

Sec. 29-203-3a. Adopted standard

(a) The following national standard adopted by The American National Standards Institute (ANSI), together with all addenda and amendments thereto, is hereby adopted as part of Sections 29-203-1a to 29-203-3a, inclusive:

ANSI B77.1-1992, American National Standard for Passenger Tramways - Aerial Tramways, Aerial Lifts, Surface Lifts, and Tows - Safety Requirements.

(b) This standard is available from The American National Standards Institute, 11 West 42nd Street, New York, N.Y. 10036.

(Effective October 30, 1998)

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State Examining Board for Crane Operators

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Repealed, August 27, 1999.

Safety Code for the Operation and Maintenance of Cranes

Secs. 29-223-10—29-223-14.

Repealed, August 27, 1999.

Secs. 29-233-15—29-233-16.

Repealed, February 2, 2010.

Connecticut Examining Board for Crane Operators

Sec. 29-223-1a. Classifications of crane operator's licenses

The Crane Operators Examining Board, hereafter "the Board," may issue separate operator's licenses for individuals operating the following classifications of cranes: tower cranes, hydraulic cranes, derrick cranes, and mobile cable cranes.

(Adopted effective August 27, 1999)

Sec. 29-223-2a. Requirements for examination

(a) General Examination.

Each applicant for a crane operator's license shall, and each applicant for a renewal license may, be required to take a general written examination designed to test the applicant's knowledge of generally accepted safety standards.

(b) Operating Examination.

Each applicant who receives a passing score on the general examination shall also be required to successfully complete an operating examination designed to test his or her competence in the safe operation of a crane by performing certain tasks such as raising and lowering a load, raising and lowering the boom, swinging the crane with a suspended load, braking, and understanding hand signals.

(Adopted effective August 27, 1999)

Sec. 29-223-3a. Applicant qualifications

(a) Qualifications of Applicants Not Previously Licensed in Connecticut.

Applicants not previously licensed in Connecticut shall meet the following qualifications:

- (1) Each applicant shall be at least 18 years of age;
- (2) Each applicant shall have at least two years of experience in the operation of a crane; and
- (3) Each applicant shall successfully complete both the general and operating examinations administered by the Board.

(b) Apprentice's Certificate of Registration.

An apprentice's certificate of registration may be issued to an individual who is not eligible for licensing because he or she does not have two years of experience operating a crane. Such certificate shall entitle the holder to operate a crane under the general supervision of a licensed crane operator.

(Adopted effective August 27, 1999)

Sec. 29-223-4a. Procedures for issuance and renewal of licenses and apprentice certificates

(a) Applications for New Licenses.

Each applicant for licensing shall complete an application form and pay an examination fee of \$50. If such candidate meets the age and experience requirements, the Board shall schedule a general examination. If the applicant receives a passing score on the general examination, the Board shall schedule an operating examination. If the applicant receives a passing score on the operating examination, the Board shall issue a two-year license upon payment of the licensing fee and submission of a passport-sized photograph.

(b) Licensing Fees.

The fee for both the initial two-year operator's license and each renewal thereof shall be \$50.

(c) Apprentice's Certificates of Registration.

Each applicant for an apprentice's certificate shall complete an application form, pay an initial application fee of \$25, provide a passport-sized photograph and submit a letter from an employer or training officer stating that the individual will receive training under the supervision of a licensed crane operator.

(d) Renewals and Replacements.

(1) The holder shall submit a renewal application, together with a passport-sized photograph and payment of the renewal fee.

(2) An application for renewal of a crane operator's license shall be made within one year of the expiration date of the license, unless such requirement would cause undue hardship. Any application for license renewal received more than one year after expiration of the operator's current license shall be processed as an application for initial licensing, which shall require that the applicant successfully complete the general and practical examinations.

(3) The holder of a valid license or apprentice's certificate may, upon application and payment of a \$5 fee, obtain a duplicate license or certificate in the event that the originally issued license or certificate is lost or mutilated.

(Adopted effective August 27, 1999)

Sec. 29-223-5a. Registration requirements

(a) The annual fee for initial registration of a crane shall be \$40.

(b) The annual fee for initial registration of a crane owned by a dealer shall be \$40. Such registrations may be affixed to a crane being delivered to a buyer or made available to someone other than its owner as part of a rental agreement or for demonstration purposes. Information sufficient to identify the lessee or recipient of such demonstration shall be provided to the Board upon request. For the purposes of this section, "dealer" means a person, firm or corporation engaged in the business of selling or leasing cranes.

(c) Renewal registrations shall be issued upon application and the payment of a \$25 annual fee, provided such application is received within 30 days of the expiration of the current registration. Any renewal application received more than 30 days after the expiration of the current registration shall be processed as an initial registration.

(d) The registration certificate shall be affixed to the crane in the principal operating location.

(Adopted effective August 27, 1999)

Safety Code for the Operation and Maintenance of Cranes

Sec. 29-223-6a. General provisions

(a) Safety Protection Required.

Each owner, lessee, employer or contractor responsible for the operation of a crane subject to the requirements of Sections 29-223-6a to 29-223-11a, inclusive, shall ensure that such crane is operated in accordance with the provisions of Sections 29-223a-6a to 29-223-11a, inclusive.

(b) General Requirements of Competency.

The installation and maintenance of any device required by Sections 29-223a-6a to 29-223-11a, inclusive, shall be performed by a person experienced in the operation, maintenance and repair of cranes, as defined in Section 29-221 of the Connecticut General Statutes.

(c) Condition of Equipment and Safeguards.

(1) No owner, lessee, employer or contractor shall require or permit an employee to operate any crane in violation of the provisions of Sections 29-223a-6a to 29-223-11a, inclusive.

(2) All cranes shall be operated in accordance with the manufacturer's requirements for safe lifting and the specific requirements of Sections 29-223-6a to 29-223-11a, inclusive.

(3) The safety of any modification affecting the structural stability of a crane shall be certified by the manufacturer or a licensed professional engineer. Structural welding shall only be performed by a welder certified by the American Welding Society.

(Adopted effective August 27, 1999)

Sec. 29-223-7a. Adopted standards

(a) The following standards promulgated by the American Society of Mechanical Engineers (ASME) are adopted by reference as regulations of the Department of Public Safety:

ASME B30.3-1996	Construction Tower Cranes;
ASME B30.3a-1997	Addenda, Construction Tower Cranes;
ASME B30.3b-1998	Addenda, Construction Tower Cranes;
ASME B30.4-1996	Portal, Tower and Pedestal Cranes;
ASME B30.4a-1998	Addenda, Portal, Tower and Pedestal Cranes;
ASME B30.5-1994	Mobile and Locomotive Cranes;
ASME B30.5a-1995	Addenda, Mobile and Locomotive Cranes;
ASME B30.5b-1996	Addenda, Mobile and Locomotive Cranes;
ASME B30.5c-1998	Addenda, Mobile and Locomotive Cranes;
ASME B30.6-1995	Derricks; and
ASME B30.6a-1998	Addenda, Derricks.

(b) The standards promulgated by the American Society of Mechanical Engineers are available by writing ASME at 345 East 47th Street, New York, NY 10017.

Note: A section or subsection in the Connecticut Supplement preceded by “Del” indicates the deletion of this section or subsection from the adopted referenced standard.

(Adopted effective August 27, 1999)

Sec. 29-223-8a. Connecticut Supplement to ASME B30.3-1996

ASME B30.3-1996, Construction Tower Cranes, is amended to meet the needs of Connecticut as follows:

CHAPTER 3-3

Operation

3-3.1: Qualifications for and Conduct of Operators and Operating Practices

(Del) 3-3.1.1 Operators

(Del) 3-3.1.2 Qualification for Operators

(Adopted effective August 27, 1999)

Sec. 29-223-9a. Connecticut Supplement to ASME B30.4-1996

ASME B30.4-1996, Portal, Tower, and Pedestal Cranes, is amended to meet the needs of Connecticut as follows:

CHAPTER 4-3

Operation

4-3.1: Qualifications for and Conduct of Operations and Operating Practices

(Del) 4-3.1.1 Operators

(Del) 4-3.1.2 Qualification for Operators

(Adopted effective August 27, 1999)

Sec. 29-223-10a. Connecticut Supplement to ASME B30.5-1994 and ASME B30.5a-1995

(a) ASME B30.5-1994, Mobile and Locomotive Cranes, is amended to meet the needs of Connecticut as follows:

CHAPTER 5-3

Operation

5-3.1: Qualifications for and Conduct of Operators and Operating Practices

(Del) 5-3.1.1 Operators

(Del) 5-3.1.2 Qualifications for Operators

(b) ASME B30.5a-1995, Addenda, Mobile and Locomotive Cranes, is amended to meet the needs of Connecticut as follows:

CHAPTER 5-0

Scope, Definitions and References

5-0.2.2 General

(Del) qualified operator - an operator who has met the requirements of paras. 5-3.1.2(a), (b), and (c).

CHAPTER 5-3

Operation

5-3.1 Qualifications for and Conduct of Operators and Operating Practices

(Del) 5-3.1.1 Operators

(Del) 5-3.1.2 Qualifications for Operators

(Adopted effective August 27, 1999)

Sec. 29-223-11a. Connecticut Supplement to ASME B30.6-1995

ASME B30.6-1995, Derricks, is amended to meet the needs of Connecticut as follows:

CHAPTER 6-3

Operation

6-3.1 Qualifications for and Conduct of Director and Operating Practices

(Del) 6-3.1.1 Operation of Derricks

(Del) 6-3.1.2 Qualifications for Directors

6-3.2 Operator Qualifications and Operating Practices

(Del) 6-3.2.1 Operators

(Del) 6-3.2.2 Qualifications for Operators

(Adopted effective August 27, 1999)

Examining Board for Crane Operators**Sec. 29-223-12a. Special provisions for derricks**

As circumstances require, the employer, the operator or both shall ensure the following:

(1) Bracing of foot blocks. The foot blocks of every derrick shall be securely supported and firmly anchored against movement in any direction.

(2) Guys.

(A) Number and spacing. The top of any guy derrick mast more than 25 feet in height shall be steadied by not less than six wire rope guys so spaced as to make angles between adjacent guys approximately equal.

(B) Attachment. Wire rope guys shall be secured by weldless steel sockets, thimble and splice connections, thimbles with proper size and numbers of rope clips or cast steel guy plates having grooved bearing surfaces of the same shape and size as the wire rope thimbles, using a spliced or wire rope clip attachment.

(C) Anchoring. Guys shall be attached to strong, permanent construction or to substantial "deadmen" or counterweights securely anchored in the ground.

(3) Breast-type derricks.

Breast-type derricks shall be guyed from both the front and rear. Where front guys are not possible because of derrick operation, provisions shall be made to prevent such derricks from tipping backward. Breast-type derricks that are operated by hand power shall have the hand grips securely and positively fastened to the shaft and a ratchet and pawl shall be provided that will hold any load.

(4) Derrick construction.

(A) Materials. The mast, boom, frame and similar parts of a derrick shall be constructed of suitable steel or of selected wood of proper strength and durability.

(B) Mast fittings. On derricks that have booms longer than the masts, the gudgeon pins, mast tops and goosenecks shall be securely fastened to the tops of the masts to prevent such parts from pulling out when the booms are raised.

(5) Derrick capacity charts.

(A) A capacity chart shall be provided for every derrick and such chart shall be posted conspicuously on the job site. Unless furnished by the manufacturer or builder of the derrick, the capacity chart shall be prepared and certified by a professional engineer licensed in the state of Connecticut and a copy thereof shall be submitted to the Commissioner of Public Safety upon request.

(B) A derrick shall not lift any load that exceeds the relevant maximum specified on its capacity chart.

(Adopted effective February 2, 2010)

Hoisting Equipment Operators and Apprentices

Sec. 29-223-13a. Definitions

For the purposes of sections 29-223-13a to 29-223-26a, inclusive, of the Regulations of Connecticut State Agencies:

(1) "ANSI" means the American National Standards Institute;

(2) "Board" shall have the meaning ascribed to it in section 29-221 of the Connecticut General Statutes;

(3) "Commissioner" means the Commissioner of Public Safety;

(4) "Competent person," as determined by the employer or the employer's designee, shall have the meaning ascribed to it in 29 CFR 1926.32, including a hoisting equipment operator if such operator meets the requirements of 29 CFR 1926.32;

(5) "SAE" means the Society of Automotive Engineers; and

(6) "Qualified," as determined by the employer or the employer's designee, shall have the meaning ascribed to it in 29 CFR 1926.32, including a hoisting equipment operator if such operator meets the requirements of 29 CFR 1926.32.

(Adopted effective February 2, 2010)

Sec. 29-223-14a. Operator and apprentice qualifications

(a) An operator or apprentice shall be 18 years of age or older.

(b) An operator or apprentice shall meet the physical requirements of regulations of the U.S. Department of Transportation, Federal Motor Carrier Safety Administration, at 49 CFR 391.41.

(c) An operator shall successfully complete the licensing examination.

(Adopted effective February 2, 2010)

Sec. 29-223-15a. Requirements for examination

(a) **General examination.**

Each applicant for a hoisting equipment operator's license shall be required to take a general written examination designed to test the applicant's knowledge of generally accepted safety standards.

(b) **Practical operating examination.**

The board shall require each applicant for an initial hoisting equipment operator's license who receives a passing score on the general examination to successfully complete a practical operating examination.

(c) Examination of an applicant for license renewal.

Each license renewal applicant shall continue to maintain the technical knowledge and skills required to operate hoisting equipment. Where appropriate, the The board may require demonstration of such knowledge or skills by general examination, a practical operating examination or both or by requiring the submission of such other information as may be necessary to make a determination. Such demonstration may be required in the event of an accident or where the board receives information that an applicant has not maintained his or her technical knowledge or skills.

(Adopted effective February 2, 2010)

Sec. 29-223-16a. Procedures for issuance and renewal of licenses and registrations**(a) Application for a new operator's license.**

Each applicant for a new operator's license shall complete an application form and pay an examination fee of \$50. If such candidate meets the age and experience requirements, the board shall schedule a general examination. If the applicant receives a passing score on the general examination, the board may schedule a practical operating examination. Upon successful completion of the examination or examinations, payment of the licensing fee and submission of a passport-sized photograph, the board shall issue a two-year operator's license.

(b) Application for a new apprentice's certificate of registration.

Each applicant for a new apprentice's certificate of registration shall complete an application form, pay an application fee of \$50, provide a passport-sized photograph and submit a letter from an employer or training officer stating that the applicant shall receive training under the supervision of a licensed hoisting equipment operator.

(c) Licensing fees.

(1) The fee for both the initial two-year operator's license and each two-year renewal thereof shall be \$200.

(2) The fee for both the initial two-year apprentice's certificate of registration and each two-year renewal thereof shall be \$50.

(d) License and registration certificate renewal and replacement.

(1) The holder of a license or registration certificate shall submit a renewal application, together with a passport-sized photograph and payment of the renewal fee.

(2) An application for renewal of a hoisting equipment operator's license or apprentice's certificate of registration shall be made no later than 60 days after the expiration date of the license or certificate of registration. During this 60-day period, operation shall be deemed to be operation without a license or certificate of registration. Any application for license or certificate renewal received more than 60 days after expiration of the current license or certificate shall be processed as an application for initial licensing or registration, which shall require examination in the case of the operator's license.

(3) The holder of a valid operator's license or apprentice's certificate of registration may, upon application and payment of a \$25 fee, obtain a duplicate license or certificate, in the event that the originally issued license or certificate is lost or mutilated.

(Adopted effective February 2, 2010)

Sec. 29-223-17a. Training of apprentices

(a) The employer shall provide an apprentice with sufficient training so that said apprentice may safely operate hoisting equipment.

(b) The tasks performed by the apprentice while operating the hoisting equipment shall be within the apprentice's ability.

(c) A trainer supervising an apprentice shall meet the following requirements:

- (1) The trainer shall be an employee or agent of the apprentice's employer;
- (2) The trainer shall hold a Connecticut hoisting equipment operator's license;
- (3) The trainer shall be familiar with the proper use of the hoisting equipment's controls;

(4) While supervising the apprentice, the trainer shall perform no tasks that detract from the trainer's ability to supervise the apprentice; and

(5) The trainer and apprentice shall be in each other's direct line of sight and shall communicate verbally or by hand signals.

(d) The apprentice shall be supervised by the trainer at all times, except during breaks by the trainer lasting no longer than 15 minutes, provided that there shall be no more than one break per hour. The trainer shall inform the apprentice of the specific tasks to be performed, as well as any limitations associated with such tasks. Such tasks shall be within the apprentice's abilities.

(e) The apprentice shall not operate the hoisting equipment in any of the following circumstances:

(1) If any part of the hoisting equipment, load line or load, including rigging and lifting accessories, if operated up to the hoisting equipment's maximum working radius in the work zone, could get within 20 feet of a power line that is over 350 kilovolts (kV);

(2) If the equipment is used to hoist personnel; or

(3) If the lift to be performed involves multiple pieces of hoisting equipment.

(Adopted effective February 2, 2010)

Hoisting Equipment Operator Safety Code

Sec. 29-223-18a. Operating safety rules and practices. Operator responsibility

(a) Safe operation is the responsibility of the operator; the operator is responsible for operations under his or her direct control. The operator shall develop safe working habits and be aware of hazardous conditions in order to protect the operator, other persons and the hoisting equipment and material.

(b) The operator shall be responsible for providing firm footing for the hoisting equipment to complete the lift safely or to transport the machine in a safe manner.

(c) **Storage of items in the cab.**

(1) Necessary clothing and personal belongings shall be stored in such a manner as to avoid interfering with access or operation.

(2) Tools, oil cans, waste and other necessary items shall be stored in the toolbox and shall not be permitted to lie loose in or about the cab.

(d) Whenever there is any concern about safety, the operator shall consult with a supervisor and cease operations until a qualified person has determined that the hoisting equipment may be safely operated.

(e) The operator shall obey a stop order from any legitimate source.

(f) The operator shall be familiar with the operation and function of all hoisting equipment controls and instruments.

(g) The operator shall read and be familiar with the operator's manual for the particular equipment operated.

(h) The operator shall not engage in any practice that may divert such operator's attention from hoisting equipment operation.

(i) The operator shall not operate hoisting equipment when mentally or physically unfit.

(j) The operator shall respond to signals from the person directing the lift or the appointed signal person.

(k) Before leaving hoisting equipment unattended, the operator shall:

(1) Land any load, bucket, lifting magnet or other device;

(2) Disengage the master clutch, if equipped;

(3) Set travel, swing, brakes and other locking devices;

(4) Put controls in the off or neutral position;

(5) Secure the hoist against accidental travel; and

(6) Stop the engine. When stops are frequent, the operator may leave the engine running when the operator is situated to observe unauthorized entry and the hoisting equipment is located within an area protected from unauthorized entry.

(l) If the operator finds a warning sign on the switch or engine starting controls, the operator shall not close the switch or start the engine until the warning sign has been removed by a person with authority to do so.

(m) Before closing the switch or starting the engine, the operator shall see that all controls are in the off or neutral position and that all persons are clear of the hoisting equipment.

(n) If power fails during operations, the operator shall set all brakes and locking devices, move all clutches or other power controls to the off or neutral position and, if practical, land the suspended load under brake control.

(o) The operator shall be familiar with the proper care of the hoisting equipment. The operator shall test all controls at the start of a new work shift, as provided by subsection (f) of section 29-223-23a of the Regulations of Connecticut State Agencies. If adjustments or repairs are necessary, the operator shall promptly report to a person responsible for the repair of such equipment and to the next operator. Operations may not begin until the necessary adjustments or repairs have been made.

(p) The operator shall follow the manufacturer's boom assembly and disassembly procedures. If there is to be any deviation from such procedures, the boom or boom sections shall be blocked to prevent the boom from inadvertently dropping.

(q) When removing pins or bolts from a boom, workers shall not be positioned underneath the boom.

(r) The operator shall not operate such hoisting equipment unless a written copy of the load capacity chart is located by the operator's controls.

(s) The operator shall not operate hoisting equipment for more than 16 continuous hours and the operator shall rest for at least 10 hours between shifts.

(Adopted effective February 2, 2010)

Sec. 29-223-19a. General lifting requirements

(a) Handling the load.

(1) No hoisting equipment shall be loaded beyond the specifications of the load-rating chart, except for test purposes as specified by the manufacturer.

(2) The load to be lifted shall be within the rated capacity of the hoisting equipment in its existing configuration.

(b) Loads of unknown size.

When a load whose size is not accurately known is to be lifted, the person responsible for the job lift shall ascertain that the weight of the load does not exceed the ratings at the radius at which the load is to be lifted. For the purposes of this subsection, the size of the load may be determined by contacting the manufacturer, by weighing the load, by considering known unit weights and by using such other

engineering techniques as are applicable given the circumstances. For each such lifting assignment, the following requirements shall be met:

- (1) A specific person shall be appointed to direct each lift;
- (2) A qualified person shall ascertain that the rope or other rigging hardware is in satisfactory condition both before and after lifting;
- (3) Operations shall be conducted in such a manner and at such speeds as to minimize dynamic effects;
- (4) Each lift shall be recorded in the hoisting inspection record and prior uses shall be considered before permitting another such lift; and
- (5) Duty cycle or repetitive lifts shall not be made with operating design factors less than five.

(c) **Attaching the load.**

The operator is responsible for ensuring that the load is attached and secured properly.

(d) **Holding the load.**

- (1) The operator shall not leave the controls while the load is suspended.
- (2) The operator shall not permit any person to stand or pass under a suspended load.

(e) **Moving the load.**

The person directing the lift shall ensure the following:

- (1) The hoisting equipment is stable and, where necessary, blocked;
- (2) The load is well secured and balanced in the sling or lifting device before it is lifted more than a few inches;
- (3) The lift and swing path is clear of obstructions;
- (4) All persons are clear of the swing radius of the hoisting equipment's counterweight, if equipped;
- (5) The effect of ambient wind on the load and hoisting equipment is considered;
- (6) During lifting operations, care shall be taken that there is no sudden acceleration or deceleration of the moving load, and that the load, boom or other parts of the machine do not contact any obstruction; and
- (7) Loads are not carried over people.

(f) **Multiple hoisting equipment lifts.**

Before performing a lift in which more than one piece of hoisting equipment is to be used to support the load, the following requirements shall be met before the lift may proceed:

- (1) The lift shall follow a written plan developed by a qualified person;
 - (2) Where the qualified person determines that engineering services are needed, such services shall be provided;
 - (3) The lift shall be supervised by a person who meets the criteria for a competent and qualified person, or by a competent person assisted by one or more qualified persons; and
 - (4) The plan shall be reviewed with all workers involved with lift operations.
- (Adopted effective February 2, 2010)

Sec. 29-223-20a. General signal requirements

- (a) A signal shall be provided in the following instances:
 - (1) When the point of operation, meaning the load travel or the area near or at load placement, is not in full view of the operator;
 - (2) When the equipment is traveling and the view in the direction of travel is obstructed; or

(3) When, due to site-specific safety concerns, either the operator or the person handling the load determines that it is necessary.

(b) Signals shall be discernable or audible at all times.

(c) An operator shall not respond to a signal unless the operator clearly understands the signal.

(d) Signals to a hoisting equipment operator shall be by hand, unless voice communication equipment is used.

(e) **Hand signals.**

(1) Standard method: Hand signals shall be as provided in SAE J1307-2002, *Excavator and Back Hoe Hand Signals*. SAE J1307- 2002, *Excavator and Back Hoe Hand Signals*, may be obtained from sae.org.

(2) Non-standard hand signals: Where use of the standard method is not feasible, or where the standard method does not cover an operation or use of an attachment, non-standard hand signals may be used. When using non-standard hand signals, the signal person, hoisting equipment operator and lift supervisor, if applicable, shall agree in advance of the operation on the non-standard hand signals to be used.

(Adopted effective February 2, 2010)

Sec. 29-223-21a. Preventive maintenance. Maintenance procedures

(a) A preventive maintenance program based on the hoisting equipment manufacturer's recommendations shall be established.

(b) Dated maintenance records shall be made available to the Department of Public Safety.

(c) Before adjustments and repairs are made on hoisting equipment, the following precautions shall be taken, unless they are not applicable:

(1) Hoisting equipment shall be placed where it will cause the least interference with other equipment or operations in the area;

(2) All controls shall be placed in the off position and all operating features shall be secured from inadvertent motion by brakes, pawls or other means;

(3) Starting mechanisms shall be rendered inoperative;

(4) The power plant shall be stopped or disconnected at the power takeoff;

(5) The boom shall be lowered to the ground, if possible, or otherwise secured against dropping;

(6) The load block or attachment shall be lowered to the ground or otherwise secured against dropping; and

(7) Hydraulic oil pressure from all hydraulic circuits shall be relieved before loosening or removing hydraulic components.

(d) "Warning" or "Out of order" signs shall be placed on equipment controls.

(e) After adjustments and repairs have been made, the hoisting equipment shall not be returned to service until all guards have been reinstalled and trapped air has been removed from the hydraulic system, safety devices are reactivated and maintenance equipment has been removed.

(Adopted effective February 2, 2010)

Sec. 29-223-22a. Adjustments and repairs. Lubrication

(a) Any hazardous conditions disclosed by the inspection requirements of section 29-223-23a of the Regulations of Connecticut State Agencies shall be corrected before operation of hoisting equipment is resumed. Only personnel so designated by the equipment owner shall perform adjustments or repairs.

(b) Adjustments shall be maintained to ensure correct functioning of components.

(c) Repairs or replacements shall be provided as needed for operation. Examples include critical parts of functional operating mechanisms that are cracked, broken, corroded, bent or excessively worn or critical parts of the hoisting equipment structure that are cracked, bent, broken or excessively corroded.

(d) Replacement parts or repairs shall have at least the original design factor.

(e) Instructions for the removal of air from hydraulic circuits shall be obtained from the manufacturer and followed.

(f) **Lubrication.**

(1) All moving parts of the hoisting equipment for which lubrication is specified shall be regularly lubricated. Lubricating systems shall be checked for proper delivery of lubricant. The manufacturer's recommendations as to the points and frequency of lubrication, maintenance of lubricant levels and types of lubricant used shall be followed.

(2) Machinery shall be stationary while lubricants are being applied and protection provided as called for, unless equipped for automatic or remote lubrication.

(g) **Modifications, nameplates, markings and capacity.**

(1) Modifications and additions that affect capacity or safe operation shall not be performed without the manufacturer's prior written approval. Where such approval is granted, capacity, operation and maintenance instruction plates, tags or decals shall be changed accordingly.

(2) If the hoisting equipment is equipped with one or more attachments, equipment shall be marked to identify the attachments and show the capacity of the hoisting equipment with attachments at lowest capacity rating.

(3) All nameplates and caution and instruction markings shall be in place and legible.

(4) The user shall consider that changes in load dimension may affect capacity ratings on certain types of hoisting equipment such as forklifts.

(5) All required field assembly, operation and maintenance information shall be obtained from the manufacturer.

(Adopted effective February 2, 2010)

Sec. 29-223-23a. General inspection requirements

(a) Prior to initial use, a qualified person shall inspect all new and altered hoisting equipment to verify compliance with the manufacturer's recommendations.

(b) Inspections shall be performed in accordance with the equipment manufacturer's recommendations.

(c) Hoisting equipment that has been modified or received additions that affect the safe operation of the equipment or its capacity shall be inspected by a qualified person after such modifications or additions have been completed, but prior to use. The inspection shall ensure that the modifications or additions have been performed in accordance with the manufacturer's recommendations and shall include a functional test.

(d) Hoisting equipment that has been repaired or adjusted shall be inspected by a qualified person after such repair or adjustment has been completed, but prior to use. The qualified person shall determine if the repair or adjustment meets the manufacturer's recommendations. Where such recommendations are unavailable or inapplicable, the qualified person shall determine if a registered professional engineer is needed to develop criteria for the repair or adjustment. Final inspection shall include a functional test.

(e) A qualified person shall inspect any hoisting equipment that requires assembly or reassembly to ensure that it meets manufacturer's recommendations. Where such

recommendations are not available or are inapplicable, a registered professional engineer familiar with the equipment shall develop criteria. Final inspection shall include a functional test.

(f) A competent person shall inspect the hoisting equipment and any attachments prior to use each shift. This visual inspection shall consist of observation for apparent deficiencies including, but not limited to: hydraulics system, fluid level, engine oil level, air, hydraulic or other pressurized lines for deterioration or leakage, cracks on welds or structural components, tires for proper inflation and condition (if equipped), safety devices and operational aids for proper operation.

(g) When the hoisting equipment is in service, a competent person shall inspect such equipment on a monthly basis.

(1) The inspection shall follow the manufacturer's recommendations as to items to be inspected.

(2) The competent person shall follow a daily inspection schedule if the manufacturer specifies no inspection items. For purposes of this section, a daily inspection shall meet the requirements of subsection (f) of this section.

(3) The monthly schedule shall be documented in writing, showing what items were inspected and the results of the inspection.

(4) The monthly inspection shall include the name and signature of the person who conducted the inspection and the date such inspection occurred.

(h) Hoisting equipment shall not be used until an annual inspection shows that no corrective action is required. In conducting such inspection, manufacturer's recommendations shall be followed. Inspection reports shall be maintained for three years.

(i) Hoisting equipment subjected to severe use shall be inspected by a qualified person at intervals to be determined by the manufacturer or a qualified person. Severe use or conditions may include, but shall not be limited to: exceeding rated capacity, shock loading or prolonged exposure to a corrosive environment.

(j) A qualified person shall inspect hoisting equipment that has been idle for three months or more in accordance with the manufacturer's recommendations for an annual inspection.

(k) If a hoisting equipment manufacturer's recommendations regarding inspections are more comprehensive or inspections are required more frequently than this section, then such manufacturer's recommendations shall be followed.

(Adopted effective February 2, 2010)

Sec. 29-223-24a. Personnel lifting

(a) The following special procedures shall be followed when personnel are to be lifted:

(1) The person specifically responsible for the overall work to be performed shall determine that there is no practical alternative way to perform the needed work or gain access to the area. Such person then may authorize the personnel lifting procedure;

(2) For each personnel lifting procedure, the person responsible for the task shall attest to the need for the operation and shall issue a written statement describing the procedure and its time frame. The statement shall be retained at the jobsite;

(3) When used for lifting personnel, the hoisting equipment shall be inspected on a daily basis;

(4) Lifting and supporting shall be made under controlled conditions and under the direction of an appointed signal person;

(5) The operator, signal person and the person responsible for the task shall meet on a daily basis to plan and review procedures to be followed. The person responsible

for the task shall also instruct all personnel who will occupy the personnel platform regarding the proper procedures to be followed, including procedures for entering and leaving the personnel platform and the points at which persons will enter and leave the personnel platform;

(6) The operator and signal person shall conduct a test lift with the empty personnel platform or basket and verify adequacy of footing;

(7) Communication between the operator, signal person and person or persons being lifted shall be maintained;

(8) When personnel from the personnel platform or basket perform welding, the electrode holders shall be protected from contact with metal components of the personnel platform or basket;

(9) Personnel being lifted or supported shall wear safety belts with lanyards attached to one or more designated anchor points;

(10) The operator shall remain at the controls when the personnel platform is occupied;

(11) Movement of the personnel platform shall be done in a slow, controlled, cautious manner with no sudden movements of the personnel platform;

(12) Hoisting equipment shall not travel while personnel are on a personnel platform or in the basket;

(13) The personnel being lifted or positioned shall remain in continuous sight or communication with the operator or signal person;

(14) Hoisting equipment used for lifting personnel shall be supported by a firm surface. When provided, outriggers shall be fully extended and properly set;

(15) The total weight of the lifted load, including personnel, shall not exceed 50 per cent of the rated capacity under the planned conditions of use;

(16) A suspended personnel platform shall be used only for personnel, their tools and sufficient materials to do their work. Such platform shall not be used for transporting bulk materials;

(17) Personnel shall keep all parts of their bodies inside the suspended personnel platform during raising, lowering and positioning to avoid pinch points. Personnel shall not stand on or work from the top rail, mid-rail or toe-board of the suspended personnel platform;

(18) If the personnel platform cannot be landed, it should be tied to the structure before personnel get off or on;

(19) A personnel platform shall not be used in winds in excess of 15 mph (25 Km/h), electrical storms, snow, ice, sleet or other adverse weather conditions that could affect the safety of personnel; and

(20) After positioning the personnel platform, all brakes and locks on the lift equipment, if equipped, shall be set before personnel perform any work.

(b) A personnel platform shall meet the following requirements:

(1) A qualified person shall design the personnel platform;

(2) The personnel platform shall be limited to a capacity of six persons;

(3) The personnel platform and attaching devices shall have a minimum design factor of five;

(4) The personnel platform shall have a plate specifying the weight of the empty personnel platform and the maximum number of persons and weight for which the personnel platform is rated;

(5) The personnel platform shall have standard railing as defined in ANSI A1264.1-1995, *Safety Requirements for Workplace Floor and Wall Openings, Stairs and Railing Systems*;

(6) A grab rail shall be provided inside the suspended platform to minimize hand exposure;

(7) The sides of the personnel platform shall be enclosed from floor to mid-rail;

(8) If access doors are installed, they shall open only to the interior of the personnel platform and access doors shall be equipped with a device to restrain the door from inadvertently opening;

(9) The personnel platform shall have overhead protection when there is an overhead hazard;

(10) The personnel platform shall be easily identifiable by high visibility color or marking;

(11) The personnel platform shall be attached by means such as, but not limited to: a shackle, hook (latched or secured), wedge or socket attachment. A wedge and socket attachment shall have a clip on the free end of the load line;

(12) The suspension system shall minimize inclination of the personnel platform due to the movement of the personnel on the personnel platform;

(13) All rough edges shall be ground smooth;

(14) All welding procedures and welding operator qualifications shall be in accordance with the 2004 edition of ANSI/AWS D1.1/D1.1M, *Structural Welding Code – Steel* when welding is to be performed on load sustaining members. Where special steels or other materials are used, welding procedures shall be obtained from the manufacturer;

(15) A welder certified by the American Welding Society or similar organization shall perform all welding; and

(16) The personnel platform shall be securely attached to the hoisting equipment.

(c) Suspended personnel platform testing and inspection.

(1) Prior to use each working shift, the platform and lifting hardware used to attach the platform to the hoisting equipment's load line attachment shall be inspected.

(2) At each new jobsite, and at least annually, personnel shall not be hoisted in the suspended personnel platform until the personnel platform, rigging and hook block is proof tested to twice the personnel platform's rated capacity by holding it in a suspended position for five minutes with the test load suitably distributed on the personnel platform.

(Adopted effective February 2, 2010)

Sec. 29-223-25a. Operating near electric power lines

(a) Hoisting equipment shall be operated so that no part of the hoisting equipment or load enters into the danger zone identified in the "*Required Clearance for Normal Voltage in Operation Near High Voltage Power Lines and Operation in Transit with No Load and Boom or Mast Lowered*" table contained within ANSI B30.5-2004, *Mobile and Locomotive Cranes*, hereafter "the ANSI table." ANSI standards may be obtained by contacting ANSI at ansi.org.

(b) Exceptions to subsection (a) of this section include those instances where the electrical distribution and transmission lines have been de-energized and visibly grounded at the point of work, or insulating barriers that are not a part of nor an attachment to the hoisting equipment have been erected to prevent physical contact with the lines. In the case of a line that has been de-energized, the operator shall obtain written verification from the property owner or electric utility before work begins.

(c) The minimum clearance for lines rated 50 kV or below shall be 10 feet.

(d) Caution shall be exercised when working near overhead lines because they can move horizontally or vertically due to wind.

(e) A qualified signal person shall be assigned to observe the clearance when the hoisting equipment moves to within a boom's length of the limits specified in the ANSI table.

(f) The requirements of this section shall be met notwithstanding the use of such safety features as cage-type boom guards, insulating links or proximity warning devices. When used, operators shall understand the limitations of such devices and shall test them in such manner and with such frequency as the manufacturer may prescribe.

(g) Durable signs shall be installed at the operator's station and on the outside of the hoisting equipment warning of the possibility of death or serious bodily injury if appropriate clearances are not maintained.

(Adopted effective February 2, 2010)

Sec. 29-223-26a. Additional safety requirements

(a) Fire extinguisher.

(1) A portable fire extinguisher with a basic minimum extinguisher rating of 10 BC shall be installed in the cab or at the machinery housing.

(2) Operating and maintenance personnel shall be familiar with the use and care of the fire extinguishers provided.

(b) Re-fueling.

(1) The storage and handling of liquid fuels, such as gasoline and diesel fuel, shall comply with ANSI/NFPA 505-2002, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operation*, and ANSI/NFPA 30-2000, *Flammable & Combustible Liquids Code*.

(2) The storage and handling of liquefied petroleum gas fuel shall comply with ANSI/NFPA 505-2002, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operation*, and ANSI/NFPA 58-2001, *Liquefied Petroleum Gas Code*.

(c) Warning device.

(1) Hoisting equipment shall be equipped with an operator-controlled horn, whistle, gong or other sound-producing device or devices. The operator shall ensure that all warning devices are in place and in working order.

(2) The operator shall determine if operating conditions require the hoisting equipment to be equipped with additional sound-producing or visual devices. The operator shall ensure that all such devices are provided and maintained.

(d) Load-handling controls.

(1) Load-handling controls shall be located for right-handed operation.

(2) Load-handling controls shall be self-centering.

(3) Load-handling controls shall be clearly and durably identified on the control or in close proximity thereto in order to indicate function and direction of motion of load or equipment.

(4) A single lever may be used to perform more than one function.

(5) The upper surface of a rotary control device shall move in the same direction as a lever.

(6) Special controls, such as for pre-selective or automatic devices, shall be identified and shall meet the requirements of this section.

(e) Travel controls.

Travel controls shall be clearly and durably identified. Such identification shall be on the control or in close proximity to it and shall indicate function and direction of motion of load or equipment.

(Adopted effective February 2, 2010)

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Boiler Design, Construction, Installation, Repair, Use and Operation

Acknowledgement Sections 29-232-93 through 29-232-110, inclusive are taken from Section IV, Article 6, 1986 Boiler Code of the American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, and are transcribed herein with permission.

Sec. 29-232-1. Definitions

Unless otherwise expressly stated, the following terms shall have these meanings:

(a) "Alteration" means any change in a boiler or appurtenance to a boiler concerning or affecting the pressure containing capability of the boiler such that the boiler or appurtenance no longer fits the description on the original manufacturer's data report. The term "alteration" shall apply to physical changes in the boiler or the appurtenance and to operating changes such as an increase in the internal or external maximum allowable working pressure or design temperature of a boiler. A reduction in minimum temperature such that additional mechanical tests are required shall also be considered an alteration.

(b) "Approved" means approved by the commissioner.

(c) "A.S.M.E. Boiler Construction Code," otherwise known as the boiler & pressure vessel code, means the boiler construction code of the American Society of Mechanical Engineers, sections I, II, III, IV, V, VI, VII and IX made, approved and adopted by the Society, whose headquarters is at 345 East 47th Street, New York, New York 10017 and from whom copies of the code may be obtained.

(d) "Boiler" means a closed vessel intended:

(1) For use in heating water or other liquids;

(2) For generating steam or other vapors under pressure or vacuum by the direct applications of heat from combustible fuels, electricity, or nuclear energy.

(e) "Certificate inspection" means an inspection, the report of which is used by the commissioner as justification for issuing, withholding or revoking the inspection certificate. This certificate inspection shall be an internal inspection when required; otherwise, it shall be as complete an inspection as possible.

(f) "Certificate of competency" means a certificate issued to a person who has passed an examination prescribed by the law qualifying him as an inspector.

(g) "Commissioner" means the department of public safety commissioner or his authorized representative.

(h) "Condemned boiler" means a boiler that has been inspected and declared unsafe for further operation.

(i) "Connecticut serial number" means the number assigned by the commissioner and stamped or affixed by an inspector to each boiler subject to the provisions of Chapter 540 of the Connecticut General Statutes for the purpose of permanent identification of such boiler. The serial number shall in every instance contain the letters CONN followed by the assigned number, and both the letters and figures shall be no less than five-sixteenths of an inch in height.

(j) "Department" means the department of public safety of the State of Connecticut.

(k) "Boiler inspector" means any inspector of boilers appointed by the department of public safety commissioner under the provisions of Chapter 67 of the Connecticut General Statutes.

(l) "Existing installations" means and includes any boiler constructed, installed, placed in operation or "contracted for" before January 1, 1986.

(m) "External inspection" means an inspection made preferably when a boiler is in operation.

(n) "Fusion welding" means a process of welding metals in a molten or molten and vaporous state, without the application of mechanical pressure or blows.

(o) "Hot water heating boiler" means a boiler used for heating purposes operating at pressures not exceeding one hundred sixty psig and temperatures not exceeding 250 degrees F.

(p) "Hot water supply boiler" means a boiler furnishing hot water to be used externally to the system at pressures not exceeding one hundred sixty psig and/or temperatures not exceeding 250 degrees F; however, it shall not include any units when none of the following limitations is exceeded:

(1) Heat input of 200,000 BTU per hour

(2) Water temperature of 210 degrees F

(3) Nominal water containing capacity of 120 gallons.

Electrically heated vessels may be constructed to either Section I, IV or VIII of the A.S.M.E. Code.

(q) "Hot water heater" means a closed vessel in which water is heated by the combustion of fuels, electricity, or any other source and withdrawn for external use to the system at pressures not exceeding 160 psig (1100 Kpa gage) and shall include the apparatus by which heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210 degrees F. (99 degrees C.).

(r) "Inspector" means any deputy inspector or any special inspector.

(s) "Internal inspection" means an inspection made when a boiler is shut down and handholes or manholes are opened for inspection of the interior.

(t) "Locomotive boiler" means a boiler mounted on a self-propelled track locomotive and used to furnish motivating power for traveling on rails. It does not include locomotive cranes, tractors or other self-propelled apparatus.

(u) "Low pressure heating boiler" means a boiler operated at pressures not exceeding fifteen psig steam or at water pressures not exceeding one hundred sixty psig and temperatures not exceeding 250 degrees F.

(v) "Major repair" means a repair upon which the strength of a boiler would depend.

(w) "Miniature boiler" means any boiler which does not exceed any of the following limits: sixteen inches inside diameter of shell; five cubic feet gross volume exclusive of casing and insulation, twenty square feet of water heating surface, one hundred psig allowable working pressure.

(x) "National Board" means the National Board of Boiler and Pressure Vessel Inspectors whose headquarters is 1055 Crupper Avenue, Columbus, Ohio 43229.

(y) "New boiler installations" means and includes all boilers constructed, installed, placed in operation or "contracted for" on or after January 1, 1986.

(z) "Nonstandard boiler" means a boiler that does not bear the state stamp, the A.S.M.E. stamp, the National Board stamp, or the stamp of any state or political subdivision which has adopted a standard of construction equivalent to that prescribed by these regulations.

(aa) "Owner or user" means any person, firm or corporation owning or operating any boiler within this state.

(bb) "Portable boiler" means a boiler, the construction and usage of which is obviously portable.

(cc) "Power boiler" means a closed vessel in which steam or other vapor (to be used externally to itself) is generated at a pressure of more than fifteen psig by the direct application of heat.

(dd) “Psig” means pounds per square inch gage.

(ee) “Reinstalled boiler” means a boiler removed from its original setting or location and re-erected at the same location or erected at a new location without change of ownership.

(ff) “Second-hand boiler” means a boiler of which both the location and ownership have been changed after primary use.

(gg) “Special inspector” means an inspector holding a Connecticut commission, and who is regularly employed by an insurance company authorized to insure against loss from explosion of boilers in this state.

(hh) “Standard boiler” means a boiler which bears the State of Connecticut, the A.S.M.E. stamp or the stamp of another state political subdivision which has adopted a standard of construction equivalent to that required by these regulations.

(ii) “High pressure, high temperature hot water boiler” means a boiler operating at pressures exceeding one hundred sixty psig and/or temperatures exceeding 250 degrees F.

(jj) “Repair—Boiler or Pressure Vessel” means the work necessary to restore a boiler to a safe and satisfactory condition, provided there is no deviation from the original design.

(kk) “Repair—Pressure Relief Valve” means the replacement, remachining, or cleaning of any critical part, lapping of seat, and disk or any other operation which may affect the flow passage, capacity function, or pressure retaining ability of the valve. Disassembly, reassembly and/or adjustments which affect the pressure relief valve function are also considered a repair.

(ll) “Safety Valve” means a pressure relief valve actuated by inlet static pressure and characterized by rapid opening or pop action.

(mm) “Safety Relief Valve” means a pressure relief valve characterized by rapid opening or pop action, or by opening in proportion to the increase in pressure over opening pressure, depending on application.

(nn) “Relief Valve” means a pressure relief valve actuated by inlet static pressure having a gradual lift generally proportional to the increase in pressure over opening pressure. It may be provided with an enclosed spring housing suitable for closed discharge system application and is primarily used for liquid service.

(Effective May 14, 1992; amended November 29, 1996, October 30, 1998)

General Requirements

Sec. 29-232-2. Manufacturers’ reports

Any new boiler (except cast iron or pressure vessel) installed in Connecticut after January 1, 1986, must be properly registered with National Board of Boiler and Pressure Vessel Inspectors. This requirement ensures that manufacturers of boilers and pressure vessels shall file manufacturers’ data reports with the National Board of Boiler and Pressure Vessel Inspectors before the manufacturer’s boiler or pressure vessel may be operated in Connecticut.

(Effective August 25, 1987)

Sec. 29-232-3. Registration of boilers

All boilers except those exempted by section 29-231 of the general statutes, shall be registered by the installer with the department on forms supplied by the department, giving the location, name of business, type, capacity, age and date of installation of boiler or pressure vessel.

(Effective August 25, 1987)

Sec. 29-232-4. Inspection of boilers

(a)(1) Power boilers, except those power boilers referenced in subdivision (2) of this section, and high-pressure, high temperature water boilers shall receive a certificate of inspection annually, which shall be an internal inspection where construction of such boilers permits; otherwise, it shall be as complete an inspection as possible. Such boilers shall also be inspected annually while under normal operating conditions, if possible.

(2) Power boilers that operate with internal water treatment under the direct supervision of a qualified engineer shall be inspected as provided in section 29-237 of the Connecticut General Statutes.

(3) Low pressure steam, hot water heating, hot water supply boilers and approved water heaters shall receive a certificate of inspection biennially.

(A) Steam or vapor boilers shall have an internal inspection every four (4) years.

(B) Hot water heating and hot water supply boilers shall have an external inspection biennially and, where construction permits, an internal inspection at the discretion of the inspector.

(C) Approved water heaters shall have an external inspection every two (2) years.

(b) Inspections may be delayed for up to two months after expiration of the certificate, where circumstances warrant. In instances where the inspection period is extended, the expiration date of the certificate shall remain the same.

(c) Any antique or model boiler, including but not limited to boilers used with traction engines that do not conform to the standards established under section 29-232 of the Connecticut General Statutes, may be operated under the following conditions: Antique or model boilers used in public, non-profit, engineering or scientific museums operated for educational, historical or exhibition purposes, shall be approved for operation in this state by a state boiler inspector of the department of public safety or by a special inspector employed by an insurance company. Approval for operations shall be given only after satisfactory review of drawings and calculations. Such antique or model boiler shall be subjected to a hydrostatic pressure test of one and one-half times maximum allowable working pressure (MAWP). Such boiler shall also be equipped with all safety devices required by sections 29-232-1 to 29-232-116, inclusive.

(Effective August 25, 1987; amended October 30, 1998, May 26, 2000)

Sec. 29-232-5. Notification of inspection

The owner or user shall prepare each boiler for internal inspection and shall prepare for and apply a hydrostatic pressure test when required on the date specified by an inspector, which date shall be not less than seven days after the date of notification.

(Effective August 25, 1987)

Sec. 29-232-6. Examination for inspector

Examinations for a certificate of competency as inspector of boilers may be held at the office of the commissioner or at any location to be selected by the commissioner on the first Wednesday of the month of March, June, September and December. Special examinations shall be held when considered necessary by the commissioner.

(Effective August 25, 1987)

Sec. 29-232-7. Applicants, requirements

Each applicant shall have education and experience equal to at least one of the following:

(a) A degree in mechanical engineering, plus one year of experience in the design, construction, operation or inspection of high pressure boilers and pressure vessels, or

(b) A degree in a branch of engineering other than mechanical engineering or an associate degree in mechanical technology, plus two years experience in design, construction, operation, or inspection of high pressure boilers and pressure vessels, or

(c) The equivalent of a high school education plus three years of experience in high pressure boiler and pressure vessel construction or repair, or as an operating engineer in charge of high pressure boiler operation, or as an inspector of high pressure boilers and pressure vessels.

(d) Application for examination for a certificate of competency shall be in writing upon a form to be furnished by the commissioner stating the school education of the applicant, a list of his employers, his period of employment and the position held with each employer. Willful falsification or untruthful statements on an application shall be cause to reject the application or to suspend a certificate issued as a result of such application. If the applicant's history and experience meet with the approval of the commissioner, he shall be given a written examination dealing with the construction, installation, operation, maintenance and repair of boilers and their appurtenances, and the applicant shall be accepted or rejected on the merits of this examination. If the applicant is successful in meeting the requirements of the commissioner, a certificate of competency shall be issued by the commissioner. After expiration of ninety days, an applicant who fails to pass the examination will be permitted to take another examination, and his acceptance or rejection will be determined by the commissioner on the basis of this examination.

(Effective August 25, 1987)

Sec. 29-232-8. Examination fees

A fee of twenty-five dollars shall be charged for each applicant taking the examination for a certificate of competency. If an applicant fails to pass the examination, this fee shall be good for a period of one year, during which a re-examination may be taken. Checks for examination fees shall be made payable to the Connecticut Department of Public Safety.

(Effective August 25, 1987)

Sec. 29-232-9. Commission as special inspector

Upon the request of a boiler insurance company authorized to do business in this state, a commission as a special inspector and an identifying commission card shall be issued by the commissioner to an inspector in the employ of such insurance company, provided the inspector has successfully passed the written examination and holds a certificate of competency as set forth in sections 29-232-6 and 29-232-7 or qualifies for a reciprocal commission as set forth in section 29-232-10. Commissions issued to inspectors in the employ of insurance companies shall be held at the home office of the employing company. The commission and the identifying commission card, shall be returned to the commissioner when the inspector to whom the commission was issued is no longer in its employ, or at the request of the commissioner. The Certificate of Competency and commission issued to such boiler inspector may be suspended by the commissioner and may be revoked upon ten days notice to the inspector and to the employer of such inspector, for incompetency or untrustworthiness, for willful falsification of any matter or statement contained in his application or in the report of any inspection, or for other sufficient reasons, but the holder of such certificate of competency shall be entitled to a hearing before the commissioner before the revocation of such certificate.

(Effective August 25, 1987)

Sec. 29-232-10. Reciprocal commissions

Upon the request of a boiler insurance company authorized to insure boilers in Connecticut, the commissioner shall issue to an inspector in the employ of such

insurance company a commission as special inspector, provided the employee has had the experience prescribed in section 29-232-7 and holds a certificate of competency or commission issued by a state which has similar standards of construction and inspection, and which holds a written examination similar to that required by the State of Connecticut, or who holds a commission as inspector of boilers from the National Board. Application for a reciprocal commission shall be made on a form to be furnished by the commissioner and shall be accompanied by a photostatic copy of the applicant's state commission or certificate of competency.

(Effective August 25, 1987)

Sec. 29-232-11. Conflicts of interests

Inspectors commissioned by the state of Connecticut shall not be engaged in the sale of any article or device that is related to boilers and shall devote their full time to inspection work.

(Effective August 25, 1987)

Sec. 29-232-12. Submission of inspection reports

Within thirty days of each certificate inspection, the insuring company shall submit to the commissioner a report of the inspection on form SP-897-C provided the insuring company shall submit an inspection report on forms approved by the commissioner when requested. External inspections shall be immediately reported on form SP-897-C in every instance when hazardous conditions affecting the safety of the boiler are found to exist. Forms other than those herein specified may not be used for report purposes under this regulation without prior approval of the commissioner.

(Effective August 25, 1987)

Sec. 29-232-13. Notification of commissioner of boilers newly insured, cancelled or suspended

All insurance companies shall notify the commissioner within thirty days of all boilers newly insured, cancelled, not renewed or suspended because of unsafe conditions.

(Effective August 25, 1987)

Sec. 29-232-14. Notification of commissioner of defective boilers

If a special inspector, upon the first inspection of a newly insured boiler, finds that the boiler or any of the appurtenances are in such condition that his company refuses to continue insurance, the company shall immediately notify the commissioner and submit a report of the defects.

(Effective August 25, 1987)

Sec. 29-232-15. External inspection. Disclosure of defects

If upon an external inspection there is evidence of a leak or crack, enough of the covering of the boiler shall be removed to satisfy the inspector in order that he may determine the safety of the boiler, or, if the covering cannot be removed at that time, he may order the operation of the boiler stopped until such time as the covering can be removed and proper examination made.

(Effective August 25, 1987)

Sec. 29-232-16. Owner or user to notify commissioner of accident

When an accident occurs which renders a boiler inoperative, the owner or user shall immediately notify the commissioner and submit a detailed report of the accident. In case of serious accident, such as explosion, notice shall be given to the

department immediately by telephone, telegraph or messenger and neither the boiler nor any of the parts thereof shall be removed or disturbed before an inspection has been made by an inspector, except for the purpose of saving human life.

(Effective August 25, 1987)

Sec. 29-232-17. Operating certificate

If a boiler shall, upon inspection by a special inspector, be found to be suitable and to conform to these regulations, the owner or user shall pay directly to the commissioner a fee of fifteen dollars for each boiler required to be inspected by chapter 540 of the General Statutes before an operating certificate shall be issued. If the owner or user of each boiler required to be inspected refuses to allow an inspection to be made or refuses to pay the above fee, the operating certificate shall be suspended by the commissioner until the owner or user complies with the requirements. The owner or user who causes or permits a boiler to be operated without possessing and displaying a valid operating certificate shall be subject to the penalty provided for in Section 29-243 of the General Statutes.

(Effective August 25, 1987)

Sec. 29-232-18. Validity of operating certificate

An operating certificate, issued in accordance with section 29-232-17 shall be valid until expiration unless some defect or condition affecting the safety of the boiler is disclosed, provided an operating certificate issued for a boiler inspected by a special inspector shall be valid for such period without inspection by the department only if the boiler for which it was issued continues to be insured by an authorized insurance company.

(Effective August 25, 1987)

Sec. 29-232-19. Assignment of serial numbers

The commissioner, upon request of a company authorized to insure boilers in Connecticut, shall assign to such company Connecticut serial numbers to be stamped or affixed to each boiler by a properly commissioned special inspector in the employ of such company upon the first internal inspection, provided such boiler shall not have been previously stamped with an assigned Connecticut serial number. Each such company shall account to the commissioner for all numbers so assigned and shall be responsible for the proper use of such serial numbers. Metal tags will be furnished by the commissioner for use when construction will not permit stamping of the Connecticut number directly on the boiler.

(Effective August 25, 1987)

Sec. 29-232-20. Restamping of boilers

When the stamping on a boiler becomes indistinct, the inspector shall instruct the owner or user to have it restamped. Request for permission to restamp the boiler shall be made to the commissioner and proof of the original stamping shall accompany the request for such permission. Restamping authorized by the commissioner shall be done only by an inspector, and shall be identical with the original stamping except that it will not be required to restamp the A. S. M. E. symbol. Notice of completion of such restamping shall be filed with the commissioner by the inspector who restamped the boiler, together with a facsimile of the stamping applied.

(Effective August 25, 1987)

Sec. 29-232-21. Condemned boilers. Stamping

Any boiler having been inspected and declared unsafe by an inspector shall be stamped by the inspector with an arrowhead stamp having an overall length of one-half inch and width of three-eighths inch on either side of the letters "XX" and

the letters “CONN,” as shown by the following facsimile, which will designate a condemned boiler:

—————} XX CONN XX {—————

Any person, firm, partnership or corporation using or offering for sale a condemned boiler for operation within this state shall be subject to the penalties provided for in section 29-243 of the general statutes.

(Effective August 25, 1987)

Sec. 29-232-22. Penalty for operation of unsafe boilers

If upon inspection a boiler is found to be in such condition that it is unsafe to operate, the operating certificate shall be suspended by the commissioner. Any person, firm, partnership or corporation causing or permitting such objects to be operated shall be subject to the penalty provided for in section 29-243 of the general statutes.

(Effective August 25, 1987)

Sec. 29-232-23. Reinstallation of used boilers removed from the state

If a standard boiler located in this state is moved to another state for any reason, application shall be made by the owner or user to the commissioner for permission to reinstall the boiler in Connecticut.

(Effective August 25, 1987)

Sec. 29-232-24. Reinstallation of nonstandard boilers

A nonstandard boiler in use in this state on January 1, 1954, if removed outside the boundaries of the state, shall not be brought in and reinstalled unless it has been made to comply with these regulations and permission for reinstallation has been obtained from the commissioner. Shipment of nonstandard boilers into this state, for use, is prohibited.

(Effective August 25, 1987)

Sec. 29-232-25. Installing used or second-hand boilers

Before a used or second-hand boiler can be reinstalled or shipped into this state, an inspection shall be made by a Connecticut inspector or by an inspector qualified by an examination of grade equal to that required by the state of Connecticut, and data submitted by him shall be filed by the owner or user of the boiler with the commissioner for his approval.

(Effective August 25, 1987)

Sec. 29-232-26. Reinstalled boilers

In any case where a stationary boiler is moved and reinstalled, it shall be subjected to a hydrostatic test witnessed by an inspector. All the fittings and appliances shall comply with the regulations for new installations.

(Effective August 25, 1987)

Sec. 29-232-27. Factors of safety for existing installations

An inspector shall increase the factor of safety if the condition of the boiler warrants it. If the owner or user does not concur with the inspector's decision, the owner or user may appeal to the commissioner who may order reinspection by a deputy inspector or special inspector or he may request joint inspections. Each inspector shall render his report separately to the commissioner who shall render the final decision based upon the data contained in all the inspectors' reports.

(Effective August 25, 1987)

Sec. 29-232-28. Inspection of drum heads

For new installations, provision shall be made to permit making inspections of the drum heads of all boilers. For existing installations, heads of drums shall be thoroughly examined at the annual inspection and either a sufficient amount of brickwork shall be removed or inspection doors provided to enable this examination to be made.

(Effective August 25, 1987)

Sec. 29-232-29. Major repairs and alterations to boilers and appurtenances thereof; fusion welding

(a) Where a major repair to a boiler, including but not limited to riveted-patches and repairs by fusion welding, is necessary, an inspector shall be called for consultation and advice as to the best method of making such repair before such repair is started. After the repair is completed, it shall be subject to inspection and approval by the inspector. Approval shall be conditioned upon adherence to generally accepted engineering practices and methods designed to assure restoration of the boiler to a condition which will permit safe operation at the approved pressure.

(An example of generally approved engineering practices and methods is contained in Chapter III of the National Board Inspection Code.)

(b) Where a repair or alteration to a boiler is made by means of fusion welding, the repair or alteration shall be accomplished by an organization in possession of a valid certificate of authorization for the use of the "R" (repair) stamp issued by the National Board or in possession of a valid A.S.M.E. certificate of authorization to repair or alter boilers, provided such repairs or alterations are within the scope of the organization's quality control system. Such repairs and alterations shall be made in accordance with the National Board Inspection Code ANSI/NB-23 NBIC 1998.

(Effective May 14, 1992; amended November 29, 1996, May 26, 2000)

Sec. 29-232-30. Removal of safety appliances

No person, except under the direction of an inspector, shall attempt to remove or shall do any work upon any safety appliance, prescribed by these regulations, while a boiler is in operation. If any of these appliances are removed or repaired during an outage of a boiler, they shall be reinstalled and in proper working order before the object is again placed in service. No person shall in any manner load the safety valve or valves to maintain a working pressure in excess of that stated on the operating certificate.

(Effective August 25, 1987)

Sec. 29-232-31. Inspection fees

Inspection fees are established in section 29-238 of the General Statutes.

(Effective August 25, 1987)

Sec. 29-232-32. Attendants of boilers

In the interest of safety all boilers in operation shall be under the supervision of and checked at suitable intervals by a competent attendant.

(Effective August 25, 1987)

Sec. 29-232-33. Preparation of boilers for inspection

All boilers, unless otherwise exempt by statute, which are subject to regular inspections, shall be prepared for such inspections or hydrostatic tests whenever necessary by the owner or user when notified by an inspector. The owner or user

shall prepare each boiler for internal inspection and shall prepare for and apply the hydrostatic test whenever necessary, on the date specified by an inspector, which date shall be not less than seven days after the date of notification.

(Effective August 25, 1987)

Sec. 29-232-34. Method of preparation for internal inspection

The owner or user shall prepare a boiler for internal inspection in the following manner:

(a) Water shall be drawn off and the boiler thoroughly washed;

(b) All manhole and handhole plates, washout plugs, and plugs in water column connections shall be removed and the furnace and combustion chambers thoroughly cooled and cleaned;

(c) All grates of internally fired boilers shall be removed;

(d) At each annual inspection, brickwork shall be removed as required by the inspector in order to determine the condition of the boiler, headers, furnace, supports or other parts;

(e) The steam gage shall be removed for testing at the discretion of the inspector;

(f) Any leakage of steam or hot water into the boiler shall be cut off by disconnecting the pipe or valve at the most convenient point.

(Effective August 25, 1987)

Sec. 29-232-35. Boilers improperly prepared for inspection

If a boiler has not been properly prepared for an internal inspection or the owner or user fails to comply with the requirements for hydrostatic tests as set forth in these regulations, the inspector may decline to make the inspection or witness the test and the operating certificate shall be withheld or withdrawn until the owner or user complies with the requirements.

(Effective August 25, 1987)

Sec. 29-232-36. Removal of covering to permit inspection

If the boiler is jacketed so that the longitudinal seams of shells, drums or domes cannot be seen, enough of the jacketing, setting wall or other form of casing or housing shall be removed so that the size of the rivets, pitch of the rivets and other data necessary to determine the safety of the boiler may be obtained, provided such information cannot be determined by other means.

(Effective August 25, 1987)

Sec. 29-232-37. Lap seam cracks

The shell or drum of a boiler in which a lap seam crack is discovered along a longitudinal riveted joint shall be immediately discontinued from use. If the boiler is not more than fifteen years of age, a complete new course of the original thickness may be installed at the discretion of the inspector. Patching is prohibited. (By "lap seam crack" is meant the typical crack frequently found in lap seams, extending parallel to the longitudinal joint and located either between or adjacent to rivet holes.)

(Effective August 25, 1987)

Sec. 29-232-38. Hydrostatic pressure tests

A hydrostatic pressure test, when applied to boilers of riveted or welded construction, except locomotive boilers, shall not exceed one and one-half times the maximum allowable working pressure. Hydrostatic pressure applied to locomotive boilers shall not exceed one and one-quarter times the maximum allowable working pressure. During the hydrostatic pressure test, the safety valve or valves shall be removed or

each valve disc shall be held down by means of a testing clamp and not by applying additional load to the spring with the compression screw. It is suggested that the minimum temperature of the water used to apply a hydrostatic test be not less than 70°F., but the maximum temperature shall not exceed 160°F. When a hydrostatic test is to be applied to existing installations, the pressure shall be as follows: (1) For all cases involving the question of tightness, the pressure shall be equal to the release pressure of the safety valve or valves having the lowest release setting; (2) for all cases involving the question of safety, the pressure shall be equal to one and one-half times the maximum allowable working pressure, except for locomotive boilers, in which case it shall be one and one-quarter times the maximum allowable working pressure.

(Effective August 25, 1987)

Sec. 29-232-39. Low water cut-offs

All automatically fired steam or vapor boilers, except boilers having a constant attendant who has no other duties while the boiler is in operation, shall be equipped with automatic low-water fuel cut-offs and so located as to automatically cut off the fuel supply when the surface of the water falls to the lowest safe water line. This point should not be lower than the bottom of the water glass. If a water feeding device is installed it shall be so constructed that the water inlet valve cannot feed water into the boiler through the float chamber and so located as to supply requisite feedwater. Such fuel or feedwater control device may be attached directly to a boiler or to the tapped openings provided for attaching a water glass directly to a boiler, provided such connections from the boiler are nonferrous t's or y's not less than one-half inch pipe size between the boiler and the water glass so that the water glass is attached directly and as close as possible to the boiler; the straightway tapping of the y or t to take the water glass fittings, the side outlet of the y or the t to take the fuel cut-off or water-feeding device. The ends of all nipples shall be reamed to full size diameter. Designs embodying a float and float bowl shall have a vertical straight-away valve drain pipe at the lowest point in the water equalizing pipe connection by which the bowl and the equalizing pipe can be flushed and the device tested.

(Effective August 25, 1987; amended October 30, 1998)

Sec. 29-232-40. Safety appliances

No person shall remove or tamper with any safety appliances prescribed by Sections 29-232-1 to 29-232-116, inclusive, except for the purpose of making repairs. The repair of pressure relief valves shall only be performed by the manufacturer of the valve or an organization which is the holder of a certificate of authorization, issued by the National Board of Boiler and Pressure Vessel Inspectors, to use the VR (valve repair) stamp. Such repairs and adjustments shall be made in accordance with the National Board Administration Rules and Procedures Publication No. NB 23-R-2200 1995 Edition.

(Effective August 25, 1987; amended October 30, 1998)

Sec. 29-232-41. Blow-off equipment

The blowdown from a boiler or boilers that enters a sanitary system of blowdown which is considered a hazard to life or property shall pass through some form of blowoff equipment that will reduce pressure and temperature as required hereinafter. The temperature of the water leaving the blowoff equipment shall not exceed 150°F. The pressure of the blowdown leaving any type of blowdown equipment shall not

exceed 5 psig. The blowoff piping and fitting between the boiler and the blowoff tank shall comply with paragraph PG-59 of the A.S.M.E. Code, Section I. All materials used in the fabrication of boiler blowoff equipment shall comply with Section II of the ASME Code. All blowoff equipment shall be equipped with openings to facilitate cleaning and inspection. Blowoff equipment shall conform to the provision set forth in the rules for National Board Boiler Blowoff Equipment.

(Effective August 25, 1987)

Sec. 29-232-42. Supports

Each boiler shall be supported by masonry or structural supports of sufficient strength and rigidity to safely support the boiler. There shall be no excessive vibration in either the boiler or its connecting piping.

(Effective August 25, 1987)

Sec. 29-232-43. Pressure reducing valves

Where pressure reducing valves are used, one or more relief or safety valves shall be provided on the low pressure side of the reducing valve in case the piping or equipment on the low pressure side does not meet the requirements for the full initial pressure. The relief or safety valves shall be located adjoining to or as close as possible to the reducing valve. Proper protection shall be provided to prevent injury or damage caused by the escaping steam from the discharge of relief or safety valves if vented to the atmosphere. The combined discharge capacity of the relief valves shall be such that the pressure rating of the lower pressure piping or equipment shall not be exceeded in case the reducing valve sticks open. The use of hand-controlled by-passes around reducing valves is permissible. The by-pass if used around a reducing valve shall not be greater in capacity than the reducing valve unless the piping or equipment is adequately protected by relief valves or meets the requirements of the high pressure system. A pressure gage shall be installed on the low pressure side of a reducing valve.

(Effective August 25, 1987)

Sec. 29-232-44. Electric steam generators

Electric boilers shall bear the Underwriters' Laboratories label on the completed unit or assembly by the manufacturer. This label shall be in addition to the code symbol requirements of the A.S.M.E. All appliances required for electric steam generators shall be attached in accordance with the following rules:

(a) A cable at least as large as one of the incoming power lines to the generator shall be provided for grounding the generator shell. This cable shall be permanently fastened on some part of the generator and shall be grounded in an approved manner.

(b) A suitable screen or guard shall be provided around high tension bushings and a sign posted warning of high voltage. This screen or guard shall be so located that it will be impossible for anyone working around the generator to accidentally come in contact with the high tension circuits.

(c) When adjusting safety valves, the power circuit to the generator shall be open. The generator may be under steam pressure but the power line shall be open while the operator is making the necessary adjustments.

(d) The minimum safety valve or safety relief valve relieving capacity for electric boilers shall be three and one half lbs. per hour per kilowatt input.

(Effective August 25, 1987)

Sec. 29-232-45. Boiler door latches

A water tube boiler shall have the firing doors of the inward-opening type, unless such doors are provided with substantial and effective latching or fastening devices

or otherwise so constructed as to prevent them, when closed, from being blown open by pressure on the furnace side. These latches or fastenings shall be of the positive self-locking type. Friction contacts, latches or bolts actuated by springs shall not be used. The requirements in this section for latches or fastenings shall not apply to coal openings of down draft or similar furnaces. All other doors, except explosion doors, not used in the firing of the boiler, may be provided with bolts or fastenings in lieu of self-locking latching devices. Explosion doors, if used and if located in the setting walls, within seven feet of the firing floor or operation platform, shall be provided with substantial deflectors to divert the blast.

(Effective August 25, 1987)

Sec. 29-232-46. Clearance

All boilers shall be so located that adequate space will be provided for the proper operation of the boiler and its appurtenances, for the inspection of all surfaces, tubes, water walls, economizers, piping, valves and other equipment and for their necessary maintenance and repair.

(Effective August 25, 1987)

Sec. 29-232-47. Shop inspection

Any new boiler, except cast iron boilers, being constructed for installation in the State of Connecticut shall be shop inspected by an inspector holding a Connecticut commission, a National Board commission or a commission issued by a state that has adopted the A.S.M.E. Boiler Construction Code.

(Effective August 25, 1987)

Sec. 29-232-48. Inspection of second-hand equipment

Charges for inspection of second-hand equipment shall be at the rate provided by the Connecticut General Statutes.

(Effective August 25, 1987)

Sec. 29-232-49. Other conditions

Any condition not covered by these regulations which, in the opinion of the inspector, affects the continuing safety operation of the boiler shall be resolved by the commissioner who may require correction according to the requirements for new installation.

(Effective August 25, 1987)

New Power Boiler Installation

Sec. 29-232-50. New power boiler installations

(a) No power boiler, except reinstalled boilers and those exempted by statute, shall be installed in this state after November 15, 1957, unless it has been designed, constructed, inspected by a National Board commissioned inspector and stamped in conformity with the provisions of Section I of the latest edition of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, entitled "Power Boilers" and with addenda and amendments thereto, approved by the society and adopted by the commissioner as safe requirements for the construction, installation and inspection of boilers in the interest of public safety, as such rules, addenda or amendments thereto shall appear on file with the secretary of state.

(b) When a stationary power boiler is moved and reinstalled, the attached fitting and appliances shall comply with these rules and regulations for new installations.

(Effective August 25, 1987)

Sec. 29-232-51. Inspections

Each boiler subject to the provisions of section 29-232-50 shall upon completion of the installation be inspected by an authorized inspector before operation. At the time of this inspection, each boiler shall be stamped with a serial number of the state of Connecticut (preceded by the letters CONN, said letters and figures to be not less than five-sixteenths of an inch in height). The stamping shall not be concealed by lagging or paint and shall be exposed at all times.

(Effective August 25, 1987)

Sec. 29-232-52. Ladders and runways

Where necessary to afford safe access, a steel runway or platform at least eighteen inches wide and provided with standard hand rails and toe boards on either side shall be installed across the tops of adjacent boilers or at some other convenient level. All runways shall have at least two means of exit, each exit to be remotely located from the other and connected to a permanent stairway or inclined ladder leading to the floor level.

(Effective August 25, 1987)

Sec. 29-232-53. Exits

The number of doorways from boiler, incinerator or furnace rooms shall meet the requirements of the State Building Code, adopted under authority of Section 29-252 of the Connecticut General Statutes.

(Effective August 25, 1987; amended November 29, 1996, October 30, 1998)

Existing Installations — Power Boilers**Sec. 29-232-54. Age limit of existing boilers**

(a) The age limit of any boiler of nonstandard construction, installed prior to the date the act became effective, shall be 30 years except that, after a thorough internal and external inspection, and when required by the inspector, a hydrostatic pressure test of one and one-half times the allowable working pressure and held for a period of at least 30 minutes, during which no distress or leakage develops, any boiler having other than a lap-riveted longitudinal joint may be continued in operation at the working pressure determined by Sec. 29-232-55. The age limit of any nonstandard boiler having lap-riveted longitudinal joints and operating at a pressure in excess of 50 psi shall be 30 years; this type of boiler, when removed from an existing setting, shall not be reinstalled for a pressure in excess of 15 psi reasonable time for replacement, not to exceed one year, may be given at the discretion of the chief inspector.

(b) **Maximum allowable working pressure of standard boilers.** The maximum allowable working pressure of standard boilers shall be determined by the applicable section of the code under which they were constructed and stamped.

(Effective August 25, 1987)

Sec. 29-232-55. Maximum allowable working pressure of nonstandard boilers

The maximum allowable working pressure of the shell or drum of a non standard boiler shall be determined by the strength of the weakest section of the structure, computed from the tensile strength of the plate, the thickness of the plate, the efficiency of the longitudinal joint or tube ligament, the inside diameter of the outside course and the factor of safety required by these regulations.

$\frac{TS \times t \times E}{R \times FS}$ = maximum allowable working pressure psig.

where:

TS = ultimate tensile strength of shell plates, lb/in².

t = minimum thickness of shell plate, in weakest course, in inches.

E = efficiency of longitudinal joint or tube ligament.

For riveted construction, E shall be determined by rules given in section I, part PR of the "Rules of Construction of Power Boilers," 1971 edition. For tube ligaments, E shall be determined by rules in paragraph PG52 and PG53, section I, of the "Rules of Construction of Power Boilers" latest edition. For seamless construction, E shall be considered one hundred per cent.

R = one half of the inside diameter of the weakest course of shell or drum in inches.

FS = factor of safety permitted.

(a) **Tensile strength.** When the tensile strength of steel or wrought iron shell plates is not known it shall be taken as 55,000 lbs. per sq. in. for steel and 45,000 lbs. per sq. in. for wrought iron.

(b) **Crushing strength of mild steel.** The resistance of crushing of mild steel shall be taken at 95,000 lbs. per sq. in. of cross sectional area.

(c) **Strength of rivets in shear.** When computing the ultimate strength of rivets in shear, the following values in pounds per square inch of the cross sectional area of the rivet shank shall be used:

Iron rivets in single shear	38,000
Iron rivets in double shear	76,000
Steel rivets in single shear	44,000
Steel rivets in double shear	88,000

When the diameter of the rivet holes in the longitudinal joints of a boiler is not known, the diameter and cross sectional area of the rivets after driving may be selected from the following table or ascertained by cutting out one rivet in the body of the joint.

Table I

Sizes of Rivets Based on Plate Thickness

Thickness of plate:

1/4"	9/32"	5/16"	11/32"	3/8"	13/32"
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Diameter of rivet after driving:

11/16"	11/16"	3/4"	3/4"	13/16"	13/16"
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Thickness of plate:

7/16"	15/32"	1/2"	9/16"	5/8"
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Diameter of rivet after driving:

15/16"	15/16"	15/16"	17/16"	17/16"
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(d) The lowest factor of safety permissible on existing installations shall be five. For horizontal return tubular boilers having continuous lap seams more than twelve feet in length, the factor of safety shall be eight. When this latter type of boiler is removed from its existing setting, it shall not be reinstalled for pressures in excess of fifteen psig. Reinstalled or second hand boilers shall have a minimum factor of safety of six when the longitudinal seams are of lap riveted construction, and a

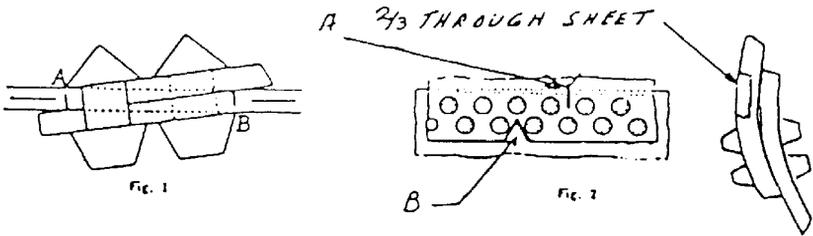
minimum factor of safety of five when the longitudinal seams are of butt and double strap construction.

(Effective August 25, 1987)

Sec. 29-232-56. Age limit of lap joint fire tube boilers

The age limit of a tubular, flue or cylinder boiler having a longitudinal lap joint and operating at a pressure in excess of fifty psig shall be thirty years. A reasonable time for replacement shall be given by the commissioner. All lap seam boilers in this state 30 years or older shall have the long seam exposed for annual examination for detection of a possible lap seam crack. A typical lap seam crack extends approximately parallel to the line of the rivet hold of a longitudinal seam, and near the edge of the rivet heads as shown in figure 1.

Figure 1.



To determine the existing condition of the riveted lap joint type seam, the seam should be notched and slotted. Figure 2-A illustrates a slot approximately 3/16 inch inside, extending 2/3 of the thickness of the plate in depth and about 1-1/2 inches in length, cut from the outer surface and so located that its center will be on a line with the edges of the rivet heads of the inner row. One quarter inch diameter holes drilled 2/3 through the plate, so a hole will be at each end of a slot, with the material between the holes removed with 3/16 inch cape chisel, forms a satisfactory procedure of cutting the slot, which, it will be noted upon referring to figures 1 and 2 will cross the path of a lap seam crack if one exists adjacent to that line of rivet holes. Generally, three slots per course are sufficient. One slot is cut at the center of the course and one on each side, midway between the center and the girth seams.

The application of a hydrostatic test not exceeding one hundred fifty percent (150%) of the safe working pressure will be sufficient to cause leakage at the slot if a lap seam crack has extended through 1/2 of the thickness of the plate. If there is a lap seam crack present, which has not developed through 1/3 the thickness of the plate, leakage will appear when the crack finally reaches the bottom of the slot; Therefore, the slot should not be closed or covered after the test.

The outside surface of the inside plate of the seam should be exposed for examination by cutting a "V" notch, as illustrated in figure 2-B. The removal of the small section of the outer plate at the caulking edge uncovers the plate underneath.

The notch should have an angle of 90°, or as near thereto as possible, while retaining the normal lap between the edge of rivet hole and the caulking edge of the plate. Care should be taken when cutting the V-notch to avoid tool marking the under plate of the seam, as that plate must be clean and polished to some extent for a thorough examination. A magnifying glass should be used for this purpose.

The boiler may be returned to service if no defect is found.

(Effective August 25, 1987)

Sec. 29-232-57. Pressure on old boilers

In no case shall the maximum working pressure of an old boiler be increased to a greater pressure than would be allowed for a new boiler of the same construction.

(a) Cast iron headers and mud drums: The maximum allowable working pressure on a water tube boiler, the tubes of which are secured to cast iron or malleable iron headers, or which have cast iron mud drums, shall not exceed one hundred sixty psig.

(b) Pressure on cast iron boilers. The maximum allowable working pressure for any cast iron boiler, except hot water boilers, shall be fifteen psig.

(Effective August 25, 1987)

Sec. 29-232-58. Safety valves

The use of weighted-lever safety valves is prohibited. Safety valves having either the seat or disc of cast iron, shall not be used. Each boiler shall have at least one safety valve and if it has more than five hundred sq. ft. of water heating surface, or if an electric boiler has a power input more than 500kw, it shall have two or more safety valves. The valve or valves shall be connected to the boiler, independent of any other steam connection, and attached as close as possible to the boiler, without unnecessary intervening pipe or fittings. No valve of any description shall be placed between the safety valve and the boiler nor on the escape pipe, (if used) between the safety valve and the atmosphere. When an escape pipe is used, it shall be full size and fitted with an open drain to prevent water lodging in the upper part of the safety valve or escape pipe. When an elbow is placed on a safety valve escape pipe, it shall be located close to the safety valve outlet or the escape pipe shall be securely anchored and supported. All safety valve discharges shall be so located or piped as to be carried clear from walkways or platforms used to control the main stop valves of boilers or steam headers. The safety valve capacity of each boiler shall be such that the safety valve or valves will discharge all the steam that can be generated by the boiler without allowing the pressure to rise more than six percent above the highest pressure to which any valve is set and in no case to more than six percent above the maximum allowable working pressure. One or more safety valves on every boiler shall be set at or below the maximum allowable working pressure. The remaining valves may be set within a range of three percent above the maximum allowable working pressure, but the range of setting of all the safety valves on a boiler shall not exceed ten percent of the highest pressure to which any valve is set.

When two or more boilers, operating at different pressures and safety valve settings, are interconnected, the lower pressure boilers or interconnected piping shall be equipped with safety valves of sufficient capacity to prevent over pressure, considering the generating capacity of all boilers. In those cases where the boiler is supplied with feed water directly from pressure mains without the use of feeding apparatus, not to include return traps, no safety valve shall be set at a pressure greater than ninety-four percent of the lowest pressure obtained in the supply main feeding the boiler. The relieving capacity of the safety valves on any boiler may be checked by one of the three following methods and, if found to be insufficient, additional valves shall be provided.

(a) By making the accumulation test, which consists of shutting off all other steam-discharge outlets from the boiler and forcing the fires to the maximum. The

safety valve capacity shall be sufficient to prevent a pressure in excess of six percent above the maximum allowable working pressure.

(b) By measuring the maximum amount of fuel that can be burned and computing the corresponding evaporative capacity (steam generating capacity) upon the basis of the heating value of this fuel. These computations shall be made as outlined in the appendix of the A.S.M.E. Boiler Construction Code for Power Boilers, section I.

(c) By determining the maximum evaporative capacity by measuring the feed water.

When either of the methods outlined in (b) or (c) is employed, the sum of the safety valve capacities shall be equal to or greater than the maximum evaporative capacity (maximum steam generating capacity) of the boiler.

(Effective August 25, 1987)

Sec. 29-232-59. Boiler feeding and feed piping

All boilers shall have a feed supply which will permit the boilers being fed at any time while under pressure. A boiler having more than five hundred square feet of water heating surface shall have at least two means of feeding, one of which shall be an approved feed pump, injector or inspirator. Where a source of feed directly from pressure mains is available at sufficient pressure to feed the boiler against a pressure three percent greater than the release pressure of the safety valve with the highest release setting, this may be considered one of the means. For boilers that are fired with solid fuel not in suspension, and for boilers whose setting or heat source can continue to supply sufficient heat to cause damage to the boiler if the feed supply is interrupted, one such means of feeding shall be steam operated. A boiler fired by gaseous, liquid or solid fuel in suspension may be equipped with a single means of feeding water provided means are furnished for the shutting off of its heat input prior to the water level reaching the lowest permissible level established by the code. The feed water shall be introduced into the boiler in such manner that it will not be discharged close to riveted joints of shell or furnace sheets or directly against surfaces exposed to gases at high temperatures, or direct radiation from the fire.

The feed piping to the boiler shall be provided with a check valve near the boiler and a valve or cock between the check valve and the boiler. When two or more boilers are fed from a common source, there shall also be a valve on the branch to each boiler between the check valve and course of supply. Whenever a globe valve is used on feed piping, the inlet shall be under the disc of the valve. In all cases where returns are fed back to the boiler by gravity, there shall be a check valve and stop valve on each return line, the stop valve to be placed between the boiler and the check valve and both shall be located as close to the boiler as is practicable. Where deaerating heaters are not employed, it is recommended that the temperature of the feed water be not less than 120°F to avoid the possibility of setting up localized stress. Where deaerating heaters are employed, it is recommended that the minimum feed water temperature be not less than 215°F so that dissolved gases may be thoroughly released.

(Effective August 25, 1987)

Sec. 29-232-60. Fusible plugs

Fire-actuated fusible plugs, if used, shall conform to the requirements of the A.S.M.E. Boiler Construction Code for Power Boilers prescribed in section 29-232-50.

(Effective August 25, 1987)

Sec. 29-232-61. Water columns, gage glasses and gage cocks

No outlet connections, except for damper regulator, feedwater regulator, low water fuel cut-out, drains, steam gages, or such apparatus that does not permit the escape of an appreciable amount of steam or water therefrom, shall be placed on the piping that connects the water column to the boiler. The water column shall be provided with a valved drain of at least three-fourths of an inch pipe size, the drain to be piped to a safe location. Each boiler shall have three or more gage cocks, located within the range of the visible length of the water glass, except when such boiler has two water glasses with independent connections to the boiler, located on the same horizontal line. Boilers not over thirty-six inches in diameter in which the heating surface does not exceed 100 sq. ft. need have but two gage cocks. Electric boilers need not be fitted with gage cocks. The gage cock connections shall be not less than one-half inch pipe size. When the direct reading of gage glass water level is not readily visible to the operator in his working area, two dependable, indirect indications shall be provided, either by transmission of the gage glass image or by remote level indications.

(Effective August 25, 1987)

Sec. 29-232-62. Steam gages

Each steam boiler shall have a steam gage with the dial graduated to approximately double the pressure at which the safety valve is set but in no case to not less than one and one-half times this pressure, connected to the steam space or to the steam connection to the water column. The steam gage shall be connected to a siphon or equivalent device of sufficient capacity to keep the gage tube filled with water and so arranged that the gage cannot be shut off from the boiler except by a cock placed near the gage and provided with a tee or lever handle arranged to be parallel to the pipe in which it is located when the cock is open. An additional shut off valve or cock may be used near the boiler, provided the valve is locked open. The line shall be ample size with provision for free blowing. The connection to the boiler, except the siphon, shall not be less than one-quarter inch standard pipe size but where steel or wrought iron pipe or tubing is used, they shall not be less than one-half inch inside diameter. Each boiler shall be provided with a one-fourth of an inch nipple and globe valve connected to the steam space for the exclusive purpose of attaching a test gage when the boiler is in service so that the accuracy of the boiler steam gage may be ascertained.

(Effective August 25, 1987)

Sec. 29-232-63. Stop valves

Each steam outlet from a boiler, except safety valve connections, shall be fitted with a stop valve located as close as practicable to the boiler. When such outlets are over two inch pipe size, the valve or valves used on the connections shall be of the outside-screw-and-yoke rising-spindle type so as to indicate from a distance by the position of its spindle whether it is closed or open, and the wheel may be carried either on the yoke or attached to the spindle. In the case of a single boiler and prime mover installation, the stop valve required herein may be omitted provided the prime mover throttle valve is equipped with an indicator to show whether the valve is open or closed and is designed to withstand the required hydrostatic pressure test of the boiler. When a stop valve is so located that water can accumulate, ample drains shall be provided.

The drainage shall be piped to a safe location and shall not be discharged on the top of the boiler or its setting. When boilers provided with manholes are connected

to a common steam main, the steam connection from each boiler having a manhole opening shall be fitted with two stop valves having an ample free blow drain between them. The discharge of this drain shall be visible to the operator while manipulating the valves and shall be piped clear of the boiler setting. The stop valves shall consist preferably of one automatic non-return valve set next to the boiler and a second valve of the outside screw-and-yoke-type.

(Effective August 25, 1987)

Sec. 29-232-64. Blow-off piping

(a) The construction of the setting around each blow-off pipe shall permit free-expansion and contraction. Careful attention shall be given to the problem of sealing these setting openings without restricting the movement of the blow-off piping. All blow-off piping, when exposed to furnace heat, shall be protected by fire brick or other heat resisting material, so constructed that the piping may be readily inspected. Each boiler shall have a blow-off pipe, fitted with a manually operated valve or cock, in direct connection with the lowest water space. Cocks shall be of the gland or guard type and suitable for the pressure allowed. The use of globe valves or automatically controlled electric blow-off valves shall not be permitted. When the maximum allowable working pressure exceeds one hundred psig, each blow-off pipe shall be provided with two valves or a valve and cock, such valves and cocks to be of the extra heavy type, one of which shall be of the slow-opening type.

(b) On a boiler having multiple blow-off pipes, a single master valve may be placed on the common blow-off pipe from the boiler in which case only one valve on each individual blow-off is required. In this case either the master valve or the individual valves or cocks shall be of the slow-opening type. When the maximum allowable working pressure exceeds one hundred psig, blow-off piping shall be extra heavy from the boiler to the valve or valves, and shall be run full size without use of reducers or bushings. The piping shall be extra heavy wrought iron or steel and shall not be galvanized. All fittings between the boiler and blow-off valve shall be steel or extra heavy fittings or malleable iron. In case of renewal of blow-off pipe or fittings, they shall be installed in accordance with the regulations for new installations.

(Effective August 25, 1987)

Sec. 29-232-65. Repairs and renewals of boiler fittings and appliances

Whenever repairs are made to fittings or appliances or it becomes necessary to replace them, the work shall comply with the requirements for new installations.

(Effective August 25, 1987)

Sec. 29-232-66. Ladders and runways

Where necessary for safety, there shall be a steel runway or platform of standard construction installed across the tops of adjacent boilers or at some other convenient level for the purpose of affording safe access. The inspector shall notify the commissioner as to which owners or users shall provide for these requirements and the commissioner shall give written notice to the owner or user that the installation be made. The owner or user shall be allowed one year from the date of the commissioner's notification in which to complete the work. All runways shall have at least two means of exit, each to be remotely located from the other.

(Effective August 25, 1987)

Sec. 29-232-67. Exits from boiler rooms

To lessen the hazard of being trapped within the boiler room, ash pit aisles or other locations, there shall be at least two means of exit. Each elevation shall be

provided with at least two means of egress, each to be remotely located from the other. All authorized inspectors shall notify the commissioner as to which owners or users shall provide for these requirements. The commissioner shall give written notice to the owner or user that the necessary work must be completed within six months from the date of notification.

(Effective August 25, 1987)

Sec. 29-232-68. Conditions not covered by regulations

All cases not specifically covered by these regulations shall be treated as new installations or may be referred to the commissioner for instructions concerning the requirements.

(Effective August 25, 1987)

New Boiler Installations — Miniature Boilers

Sec. 29-232-69. Requirements

(a) No miniature boiler, except reinstalled boilers and those exempted by statute shall be installed in this state after January 1, 1954 unless it has been designed, constructed, inspected and stamped in conformity with the provisions of section I, part PMB of the latest edition of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, entitled "Power Boilers" and with addenda or amendments thereto, approved by the society and adopted by the commissioner as safe requirements for the construction, installation and inspection of boilers in the interest of public safety, as such rules, addenda or amendments thereto shall appear on file with the secretary of state.

(b) Miniature boilers reinstalled after October 26, 1959 shall, if constructed after that date, conform to all of the requirements of subsection (a) above. Miniature boilers reinstalled after October 26, 1959, if constructed prior to that date, shall be installed in conformity with the provisions dealing with safety valves, water and steam gages, and fittings and appliances, which are part of the Power Boilers, part PMB referred to in subsection (a) above.

(Effective August 25, 1987)

Sec. 29-232-70. Inspections

Each boiler subject to the provisions of section 29-232-69 shall, upon completion of the installation, be inspected by a duly authorized inspector before operation. At the time of this inspection, each boiler shall be stamped with a serial number of the state of Connecticut preceded by the letters CONN, said letters and figures to be not less than five-sixteenths of an inch in height. The stamping shall not be concealed by lagging or paint and shall be exposed at all times.

(Effective August 25, 1987)

Existing Installations — Miniature Boilers

Sec. 29-232-71. General rules

Regulations adopted for power boilers as prescribed in sections 29-232-54 and 29-232-55, applying to strength of materials and calculations to determine maximum allowable working pressure, shall be used for miniature boilers unless a special rule is stated herein.

(Effective August 25, 1987)

Sec. 19-428-72. Construction

The construction of miniature boilers including factor of safety, except where otherwise specified, shall conform to that required for power boilers as prescribed in section 29-232-50.

(Effective August 25, 1987)

Sec. 29-232-73. Safety valve

(a) Each miniature boiler shall be equipped with a sealed, spring-loaded, pop type safety valve not less than one-half inch pipe size, connected directly to the boiler. The safety valve shall be plainly marked by the manufacturer showing name or identifying trade-mark, nominal diameter and pressure at which it is set to release.

(b) The safety valve relieving capacity of each boiler shall be such that it will discharge all the steam that can be generated by the boiler without allowing the pressure to rise more than six percent above the maximum allowable working pressure. In those cases where the boiler is supplied with feed water directly from a pressure main or system without the use of a mechanical feeding device, the safety valve shall be set to release at a pressure not in excess of ninety-four percent of the lowest pressure obtained in the supply main or system feeding the boiler. Return traps shall not be considered mechanical feeding devices.

(Effective August 25, 1987)

Sec. 29-232-74. Gage glass and water level indicator

Each miniature boiler shall be equipped with a water gage glass for determination of water level. The lowest permissible water level shall be at a point one-third of the height of the shell, except where the boiler is equipped with an internal furnace, in which case it shall not be less than one-third of the tube length above the top of the furnace. For small boilers where there is insufficient space for the usual type of gage glass, water level indicators of the glass bull's eye type may be used.

(Effective August 25, 1987)

Sec. 29-232-75. Feeding and feedwater piping

Every miniature boiler shall be provided with at least one feed pump or other mechanical feeding device except where the following conditions exist:

(1) Where the boiler is connected to a water main or system having sufficient pressure to feed the boiler at any time while under pressure;

(2) Where the boiler is operated without extraction of steam (closed system) in which case the boiler is filled, when cold, through the connection or opening provided in accordance with the following rule:

Each miniature boiler shall be fitted with a feedwater connection which shall not be less than one-half inch pipe size for iron or steel pipe and one quarter inch for brass or copper pipe. The feed piping shall be provided with a check valve near the boiler and a valve or cock between the check valve and the boiler. Feed water may be introduced through the blow-off connection if desired. Feed water shall not be introduced through the water column or gage glass connections while the boiler is under pressure.

(Effective August 25, 1987)

Sec. 29-232-76. Blow-off piping

Each miniature boiler shall be provided with a blow-off connection, not less than one-half inch iron pipe size, directly connected with the lowest water space. Blow-off piping shall not be galvanized and shall be provided with a valve or cock.

(Effective August 25, 1987)

Sec. 29-232-77. Steam gages

Each miniature boiler shall be equipped with a steam gage having a dial range not less than one and one-half times the maximum allowable working pressure. The gage shall be connected to the steam space or to the steam connection to the gage glass by a brass or bronze composition siphon tube, or equivalent device that will keep the gage tube filled with water.

(Effective August 25, 1987)

Sec. 29-232-78. Stop valves

The steam piping from a miniature boiler shall be provided with a stop valve located as close to the boiler shell or drum as is practicable, except in those cases where the boiler and steam receiver are operated as a closed system.

(Effective August 25, 1987)

Sec. 29-232-79. Flue connection

Each gas fired boiler shall be equipped with a four-inch vent pipe or flue extended to an approved location outside the building or connected to a chimney flue. Where the horizontal run is more than ten feet, the vent shall be increased to six inches. A draft hood of approved design shall be provided on each boiler.

(Effective August 25, 1987)

Sec. 29-232-80. Stamping of existing boilers

Each existing boiler shall be stamped with a serial number of the state of Connecticut (preceded by the letters CONN, said letters and figures to be not less than five-sixteenths of an inch in height). The stamping shall not be concealed by lagging or paint and shall be exposed at all times.

(Effective August 25, 1987)

New Installation — Low Pressure Heating Boilers**Sec. 29-232-81. Requirements**

(a) No low pressure heating boiler, except reinstalled boilers and those exempted by statute, shall be installed in this state after October 26, 1959, unless it has been designed, constructed, inspected and stamped in conformity with the provisions of the latest edition of section IV of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, entitled "Heating Boilers" and with addenda or amendments thereto, approved by the society and adopted and recommended by the commissioner as safe requirements for the construction, installation and inspection of boilers in the interest of public safety, as such rules, addenda or amendments thereto shall appear on file with the secretary of state.

(b) When a low pressure heating boiler is moved and reinstalled, the attached fittings and appliances shall comply with these rules and regulations for new installations.

(Effective August 25, 1987)

Sec. 29-232-82. Inspections

Each boiler subject to the provisions of section 29-232-81 shall upon completion of the installation be inspected by a duly authorized inspector before operation. At the time of this inspection, all steel heating boilers shall be stamped with the serial number of the state of Connecticut, preceded by the letters CONN, said letters and figures to be not less than five-sixteenths of an inch in height. All cast iron heating boilers shall have securely attached to the front of the boiler a metal tag not less

than one inch in height which shall have the serial number of the state of Connecticut stamped thereon, preceded by the letters CONN.

(Effective August 25, 1987)

Sec. 29-232-83. Return water connections

The return water connections to all low pressure steam heating boilers supplying a gravity return heating system shall be so arranged as to form what is known as the “water line return” so that the water cannot be forced out of the boiler below the safety water level. A recommended connection is shown in figure HG 703.1, section IV, American Society of Mechanical Engineers Code.

(Effective August 25, 1987)

Existing Installations — Low Pressure Heating Boilers

Sec. 29-232-84. Standard boilers

The maximum allowable working pressure of a standard boiler shall in no case exceed the pressure indicated by the manufacturer’s identification stamped or cast upon the boiler or upon a plate secured to it.

(Effective August 25, 1987)

Sec. 29-232-85. Nonstandard riveted boilers

The maximum allowable working pressure on the shell of a nonstandard riveted heating boiler shall be determined in accordance with requirements of section 29-232-55, except that in no case shall the maximum allowable working pressure of a steam heating boiler exceed fifteen, or a hot water boiler exceed one hundred sixty, psig at a temperature not exceeding 250°F.

(Effective August 25, 1987)

Sec. 29-232-86. Nonstandard welded boilers

The maximum allowable working pressure of a nonstandard steel or wrought iron heating boiler of welded construction shall not exceed fifteen psig for steam service or thirty psig for hot water heating service. For hot water supply service the maximum allowable working pressure shall be calculated in accordance with the requirements of section 29-232-81.

(Effective August 25, 1987)

Sec. 29-232-87. Nonstandard cast iron boilers

The maximum allowable working pressure of a nonstandard boiler composed principally of cast iron shall not exceed fifteen psig for steam service or thirty psig for hot water service. The maximum allowable working pressure of a nonstandard boiler having cast iron shell or heads and steel or wrought iron tubes shall not exceed fifteen psig for steam service or thirty psig for water service.

(Effective August 25, 1987)

Sec. 29-232-88. Fired radiators

A radiator in which steam pressure is generated at a pressure of fifteen psig or less is a low pressure boiler.

(Effective August 25, 1987)

Sec. 29-232-89. Unsafe boilers

If, in the judgment of the inspector, a low pressure heating boiler is unsafe for operation at the pressure previously approved, the pressure shall be reduced, proper repair made or the boiler retired from service.

(Effective August 25, 1987)

Sec. 29-232-90. Safety valves

(a) Each steam boiler shall have one or more ASME/National Board certified safety valves of the spring poptype adjusted and sealed to discharge at a pressure not to exceed 15 psi. Seals shall be attached in a manner to prevent the valve from being taken apart without breaking the seal. The safety valves shall be arranged so that they cannot be reset to relieve at a higher pressure than the maximum allowable working pressure of the boiler. A body drain connection below seat level shall be provided by the manufacturer and this drain shall not be plugged during or after field installation. For valves exceeding 2 in. pipe size, the drain hole or holes shall be tapped not less than 3/8 in. pipe size. For valves less than 2 in., the drain hole shall not be less than 1/4 in. in diameter.

(b) No safety valve for a steam boiler shall be smaller than 3/4 in. unless the boiler and radiating surfaces consist of a self-contained unit. No safety valve shall be larger than 4 1/2 in. The inlet opening shall have an inside diameter equal to, or greater than, the seat diameter.

(c) The minimum relieving capacity of the valve or valves shall be governed by the capacity marking on the boiler.

(d) The minimum valve capacity in pounds per hour shall be the greater of that determined by dividing the maximum BTU output at the boiler nozzle obtained by the firing of any fuel for which the unit is installed by 1000, or shall be determined on the basis of the pounds of steam generated per hour per square foot of boiler heating surface as given in Table 2. In many cases a greater relieving capacity of valves than the minimum specified by these rules will have to be provided. In every case, the requirements of (e) shall be met.

Table 2

Minimum pound of steam per hour per square foot of heating surface.

	<i>Firetube Boilers</i>	<i>Watertube Boilers</i>
Boiler heating surface:		
Hand fired	5	6
Stoker fired	7	8
Oil, gas or pulverized fuel fired	8	10
Waterwall heating surface:		
Hand fired	8	8
Stoker fired	10	12
Oil, gas or pulverized fuel fired	14	16

NOTES: (1) When a boiler is fired only by a gas having a heat value not in excess of 200 BTU per cubic foot, the maximum safety valve or relief valve relieving capacity may be based on the values given for hand fired boilers above.

(2) The minimum safety valve or relief valve relieving capacity for electric boilers shall be three and one-half lbs. per hour per kilowatt input.

(3) For heating surface determination see A.S.M.E. Code, section IV, para. HG-403.

(e) The safety valve capacity for each steam boiler shall be such that with the fuel burning equipment installed, and operating at maximum capacity, the pressure cannot rise more than 5 psi above the maximum allowable working pressure.

(f) When operating conditions are changed, or additional boiler heating surface is installed, the valve capacity shall be increased, if necessary, to meet the new conditions and be in accordance with (e). When additional valves are required, they may be installed on the outlet piping provided there is no intervening valve.

(g) If there is any doubt as to the capacity of the safety valve, an accumulation test shall be run. (See ASME Code, Section VI, Recommended Rules for Care and Operation of Heating Boilers.)

(h) No valve of any description shall be placed between the safety valve and the boiler, nor on the discharge pipe between the safety valve and the atmosphere. The discharge pipe shall be at least full size and be fitted with an open drain to prevent water lodging in the upper part of the safety valve or in the discharge pipe. When an elbow is placed on the safety valve discharge pipe, it shall be located close to the safety valve outlet or the discharge pipe shall be securely anchored and supported. All safety valve discharges shall be located or piped as not to endanger persons working in the area.

(Effective August 25, 1987)

Sec. 29-232-91. Safety relief valve requirements for hot water boilers

(a) Each hot water heating boiler shall have at least one ASME/National Board certified safety relief valve set to relieve at or below the maximum allowable working pressure of the boiler. Each hot water supply boiler shall have at least one ASME/National Board certified safety relief valve of the automatic reseating type set to relieve at or below maximum allowable working pressure of the boiler. Safety relief valves ASME/National Board certified as to capacity shall have pop action when tested by steam. When more than one safety relief valve is used on either hot water heating or hot water supply boilers, the additional valve or valves shall be ASME rated and may be set within a range not to exceed 6 psig above the maximum allowable working pressure of the boiler up to and including 60 psig and 10 percent for those having a maximum allowable working pressure exceeding 60 psi. Safety relief valves shall be spring loaded. Safety relief valves shall be so arranged that they cannot be reset at a higher pressure than the maximum permitted by this paragraph.

(b) No materials liable to fail due to deterioration or vulcanization when subject to saturated steam temperature corresponding to capacity test pressure shall be used for any part.

(c) No safety relief valve shall be smaller than 3/4 in. nor larger than 4-1/2 in. standard pipe size, except that boilers having a heat input not greater than 15,000 BTU per hour may be equipped with a safety relief valve of 1/2 in. standard pipe size. The inlet opening shall have an inside diameter approximately equal to, or greater than, the seat diameter. In no case shall the minimum opening through any part of the valve be less than 1/2 in. in diameter or its equivalent area.

(d) The required steam relieving capacity, in pounds per hour, of the pressure relieving device or devices on a boiler shall be the greater of that determined by dividing the maximum output in BTU at the boiler nozzle obtained by the firing of any fuel for which the unit is installed by 1,000 or shall be determined on the basis of pounds of steam generated per hour per square foot of boiler heating surfaces as given in Table 2. In many cases a greater relieving capacity of valves will have to be provided than the minimum specified by these rules. In every case, the requirements of (f) shall be met.

(e) When operating conditions are changed, or additional boiler heating surface is installed, the valve capacity shall be increased, if necessary, to meet the new conditions and shall be in accordance with (f). The additional valves required, on account of changed conditions, may be installed on the outlet piping provided there is no intervening valve.

(f) Safety relief valve capacity for each boiler shall be such that, with the fuel burning equipment installed and operated at maximum capacity, the pressure cannot

rise more than 6 psi above the maximum allowable working pressure for pressure up to and including 60 psi and 10 percent of maximum allowable working pressures over 60 psi.

(g) If there is any doubt as to the capacity of the safety relief valve, an accumulation test shall be run. (See ASME Code, Section VI, Recommended Rules for Care and Operation of Heating Boilers.)

(h) No valve of any description shall be placed between the safety relief valve and the boiler, nor on the discharge pipe between the safety relief valve and the atmosphere. The discharge pipe shall be at least full size and fitted with an open drain to prevent water lodging in the upper part of the safety relief valve or in the discharge pipe. When an elbow is placed on the safety relief valve discharge pipe, it shall be located close to the safety relief valve outlet or the discharge pipe shall be securely anchored and supported. All safety relief valve discharges shall be so located or piped as not to endanger persons working in the area.

(Effective August 25, 1987)

Sec. 29-232-92. Installation of safety and relief valves

(a) Safety valves shall be located in the top or side of boilers, with the spindle vertical, but in no case shall the valves be located below the lowest permissible water level. They shall be connected directly to a tapped or flanged opening in the boiler, to a fitting connected to the boiler by a close nipple, to a Y base, or to a valveless header connecting steam outlets on the same boiler.

(b) Relief valves shall be located in the top or side of boilers, with the spindle vertical, but in no case shall the valves be located below the lowest permissible water level. They shall be connected directly to a tapped or flanged opening in the boiler, to a fitting connected to the boiler by a close nipple, to a Y base, or to a valveless header connecting water outlets on the same boiler.

(c) When a Y base is used, the inlet area shall be not less than the combined outlet areas. When the size of the boiler requires a safety valve or relief valve larger than four and one-half inches in diameter, two or more valves having the required combined capacity shall be used. When two or more valves are used on a boiler, they may be single, directly attached, or mounted on a Y base.

(d) No shut-off of any description shall be placed between the safety or relief valve and the boiler, nor on discharge pipes between such valves and the atmosphere. Safety and relief valves shall not be connected to an internal piping in the boiler.

(e) When a discharge pipe is used, its area shall be not less than the area of the valve or aggregate area based on the nominal diameters of the valves with which it connects, and the discharge pipe shall be fitted with an open drain to prevent water from lodging in the upper part of the valve or in the pipe. When an elbow is placed on a safety or relief valve discharge pipe, it shall be located close to the valve outlet. If the discharge is piped outside, a tee shall be installed in the discharge line inside the building with at least a ten inch long nipple turned up so as to relieve the drain line pressure in case of outside stoppage. The pipe shall be supported so that no undue stress is placed on the valve body. The discharge from safety or relief valves shall be so arranged that there will be no danger of scalding attendants.

(Effective August 25, 1987)

Sec. 29-232-93. Pressure gages

(a) Each steam boiler shall have a steam pressure gage connected to the steam space of the boiler itself or to its water column or on steam pipe near the boiler.

The graduations of the steam gage shall not be less than thirty PSI nor more than sixty PSI.

(b) Each hot water boiler shall have a pressure or altitude gage connected to it or to its flow connection in such a manner that it cannot be shut off from the boiler except by a cock with tee or level handle placed on the pipe near the gage. The handle of the cock shall be parallel to the pipe in which it is located when the cock is open. The scale on the dial of the pressure or altitude gage shall be graduated to not less than one and one-half nor more than three times the pressure at which the safety relief valve is set. Piping or tubing for pressure or altitude gage connections shall be of nonferrous metal when smaller than one inch pipe size.

(Effective August 25, 1987)

Sec. 29-232-94. Water column

The minimum size of ferrous or nonferrous pipes connecting a water column to a steam boiler shall be one inch. No outlet connections, except for damper regulator, feedwater regulator, steam gages, or apparatus which does not permit the escape of any steam or water except for manually operated blowdowns, shall be attached to a water column or the piping connecting a water column to a boiler. If the water column, gage glass, low-water fuel cutoff, or other water level control device is connected to the boiler by pipe and fitting, no shut off valves of any type shall be placed in such pipe, and a cross or equivalent fitting to which a drain valve and piping may be attached shall be placed in the water piping connection at every right angle turn to facilitate cleaning.

The water column drain pipe and valve shall be not less than 3/4 in. pipe size.

The steam connections to the water column of a horizontal firetube wrought iron boiler shall be taken from the top of the shell or the upper part of the head, and the water connection shall be taken from a point not above the center line of the shell. For a cast iron boiler, the steam connection to the water column shall be taken from the top of an end section or the top of the steam header, and the water connection shall be made on an end section not less than 6 in. below the bottom connection to the water gage glass.

(Effective August 25, 1987)

Sec. 29-232-95. Pressure control

Each automatically fired steam boiler shall be protected from overpressure by two pressure-operated controls.

Each individual automatically fired steam boiler shall have a safety limit control that will cut off the fuel supply to prevent steam pressure from exceeding the 15 psi maximum allowable working pressure of the boiler. Each control shall be constructed to prevent a pressure setting above 15 psi.

Shutoff valves of any type shall not be placed in the steam pressure connection between the boiler and the controls described above. These controls shall be protected with a syphon or equivalent means of maintaining a water seal that will prevent steam from entering the control. The connections to the boiler shall not be less than 1/4 in. standard pipe size, but where steel or wrought iron pipe or tubing is used, they shall not be less than 1/2 in. standard pipe size. The minimum size of a syphon shall be 1/4 in. standard pipe size or 3/8 in. O.D. nonferrous tubing.

(Effective August 25, 1987)

Sec. 29-232-96. Automatic low-water fuel cutoff and/or water feeding device

Each automatically fired steam or vapor-system boiler shall have an automatic low-water fuel cutoff so located as to automatically cut off the fuel supply when

the surface of the water falls to the lowest visible part of the water gage glass. If a water feeding device is installed, it shall be so constructed that the water inlet cannot feed water into the boiler through the float chamber and so located as to supply requisite feedwater.

Such a fuel cutoff of water feeding device may be attached directly to a boiler. A fuel cutoff of water feeding device may also be installed in the tapped openings available for attaching a water glass direct to a boiler, provided the connections are made to the boiler with nonferrous tees or Y's not less than 1/2 in. pipe size between the boiler and the water glass so that the water glass is attached directly and as close as possible to the boiler; the run of the tee or Y shall take the water glass fittings, and the side outlet or branch of the tee or Y shall take the fuel cutoff or water feeding device. The ends of all nipples shall be reamed to full-size diameter.

Fuel cutoffs and water feeding devices embodying a separate chamber shall have a vertical drain pipe and a blowoff valve not less than 3/4 in. pipe size, located at the lowest point in the water equalizing pipe connections so that the chamber and the equalizing pipe can be flushed and the device tested.

(Effective August 25, 1987)

Sec. 29-232-97. Hot water boilers pressure or altitude gages

Each hot water boiler shall have a pressure or altitude gage connected to it or to its flow connection in such a manner that it cannot be shut off from the boiler except by a cock with tee or lever handle, placed on the pipe near the gage. The handle of the cock shall be parallel to the pipe in which it is located when the cock is open.

The scale on the dial of the pressure or altitude gage shall be graduated approximately to not less than 1-1/2 nor more than three times the pressure at which the safety relief valve is set.

Piping or tubing for pressure- or altitude-gage connections shall be of nonferrous metal when smaller than 1 in. pipe size.

(Effective August 25, 1987)

Sec. 29-232-98. Thermometers

Each hot water boiler shall have a thermometer so located and connected that it shall be easily readable when observing the water pressure or altitude. The thermometer shall be so located that it shall at all times indicate the temperature in degrees Fahrenheit of the water in the boiler at or near the outlet.

(Effective August 25, 1987)

Sec. 29-232-99. Temperature control

Each automatically fired hot water boiler shall be protected from over-temperature by two temperature-operated controls.

Each individual automatically fired hot water boiler shall have a safety limit control that will cut off the fuel supply to prevent water temperature from exceeding the maximum allowable temperature of 250°F at the boiler outlet. This water temperature safety control shall be constructed to prevent a temperature setting above 250°F.

Each individual hot water boiler or each system of commonly connected boilers without intervening valves shall have a control that will cut off the fuel supply when the water temperature reaches an operating limit, which shall be less than the maximum allowable temperature.

(Effective August 25, 1987)

Sec. 29-232-100. Low-water fuel cutoff

Each automatically fired hot water heating boiler with heat input greater than 400,000 BTU/HR shall have an automatic low-water fuel cutoff which has been designed for hot water service, and it shall be so located as to automatically cut off the fuel supply when the surface of the water falls to the level established below.

As there is no normal waterline to be maintained in a hot water heating boiler, any location of the low-water fuel cutoff above the lowest safe permissible water level established by the boiler manufacturer is satisfactory.

A coil-type boiler or a watertube boiler with heat input greater than 400,000 BTU/HR requiring forced circulation to prevent overheating of the coils or tubes shall have a flow-sensing device installed in the outlet piping in lieu of the low-water fuel cutoff required above to automatically cut off the fuel supply when the circulating flow is interrupted.

(Effective August 25, 1987)

Sec. 29-232-101. Instrument, fittings and control mounted inside boiler jackets

Any or all instruments, fittings, and controls required by these rules may be installed inside of boiler jackets provided the water gage on a steam boiler is accessible without the use of tools and provided the water gage and pressure gage on a steam boiler or the thermometer and pressure gage on a water boiler are visible through an opening or opening at all times.

(Effective August 25, 1987)

Electric Wiring

Sec. 29-232-102. Electrical Code compliance

All field wiring for controls, heat generating apparatus, and other appurtenances necessary for the operation of the boiler or boilers should be installed in accordance with the provisions of the National Electric Code and/or should comply with the applicable local electrical codes. All boilers supplied with factory mounted and wired controls, heat generating apparatus, and other appurtenances necessary for the operation of the boilers should be installed in accordance with the provisions of the nationally recognized standards.

(Effective August 25, 1987)

Sec. 29-232-103. Flame safeguard requirements

(a) Furnace explosions (combustion explosion) are caused by the sudden ignition of accumulated fuel and air in the firesides of the boiler. In order to reduce the chance of personal injury, damage to property, and loss of equipment from such explosions, the boiler shall be equipped with approved burners and controls, tested and maintained as recommended by a national recognized standard.

(b) Except as otherwise specifically provided, the provisions of this section apply to all gas, oil, pulverized coal, and combination gas and oil fired burners installed on boilers covered by these rules and regulations.

(c) The following nationally recognized standards, together with all addenda and amendments thereto, are adopted:

ANSI/ASME CSD-1-1998 Controls and safety devices for automatically fired boilers; and

ANSI/NB-23 NBIC 1998 National Board Inspection Code.

ASME American Society of Mechanical Engineers: United Engineering Center, 345 East 47th Street, New York, New York 10017.

NFPA National Fire Protection Association: Batterymarch Park, Quincy, Massachusetts 02269.

(d) The above standards represents basic standards for the safe and efficient performance and substantial and durable construction of equipment. Inspection of the flame safeguard equipment will be in conjunction with the regular inspections of boilers.

(Effective May 14, 1992; amended November 29, 1996, May 26, 2000)

Sec. 29-232-104. Shutdown switches and circuit breakers

A manually operated remote heating plant shutdown switch or circuit breaker should be located just outside the boiler room door and marked for easy identification. Consideration should also be given to the type and location of the switch to safeguard against tampering. If the boiler room door is on the building exterior the switch should be located just inside the door. If there is more than one door to the boiler room, there should be a switch located at each door.

(Effective August 25, 1987)

Sec. 29-232-105. Controls and heat generating apparatus

Oil and gas-fired and electrically heated boilers should be equipped with suitable primary (flame safeguards) safety controls, safety limit switches, and burners or electric elements as required by a nationally recognized standard.¹

The symbol of the certifying organization² which has investigated such equipment as having complied with a nationally recognized standard shall be affixed to the equipment and shall be considered as evidence that the unit was manufactured in accordance with that standard.

(Effective August 25, 1987)

Sec. 29-232-106. Water gage glass and gage cocks

Each steam boiler shall have at least one water gage glass with the lowest visible part above the heating surfaces in the primary combustion chamber. When, in the judgment of an inspector, the heating surfaces above the low water line may be injured by contact with gases of high temperature, the water gage shall be raised until the lowest visible part of the gage glass is above such heating surface. Each steam boiler shall have two or more gage cocks located within the visible length of the water gage glass, except when such boiler is provided with two water gage glasses.

(Effective August 25, 1987)

¹ Examples of these nationally recognized standards are:

American National Standards Z21.13.1, Central Heating Gas Appliances, Volume I, Steam and Hot Water Boilers.

American National Standards Z21.17, Domestic Gas Conversion Burners.

Underwriters' Laboratories, Inc., UL 296, Standards for Safety, Oil Burners.

Underwriters' Laboratories, Inc., UL 573, Electric Space Heating Equipment.

Underwriters' Laboratories, Inc., UL 726, Standards for Safety Oil Fired Boiler Assemblies.

Underwriters' Laboratories, Inc., UL 795, Standards for Safety Commercial—Industrial Gas-Heating Equipment.

² A certifying organization is one that provides uniform testing, examination, and listing procedures under established, nationally recognized standards and that is acceptable to the authorities having jurisdiction.

Sec. 29-232-107. Stop valves and check valves

If a boiler may be closed off from the heating system by closing a steam stop valve, there shall be a check valve in the condensate return line between the boiler and the system. If any part of a heating system may be closed off from the remainder of the system by closing a steam stop valve, there shall be a check valve in the condensate return pipe from that part of the system.

(Effective August 25, 1987)

Sec. 29-232-108. Feedwater connections

Feedwater connections shall be independent of any water column, gage glass or gage cock connections and shall be made to the condensate return pipe or reservoir of the condensate return pump, or direct to the boiler, but shall not discharge directly against surfaces exposed to the direct radiant heat of the fire. There shall be a stop and check valve in the feedwater line near the boiler.

(Effective August 25, 1987)

Sec. 29-232-109. Return pump

Each condensate return pump, where practicable, shall be provided with an automatic water level control set to maintain the water level within the limits of two gage cocks.

(Effective August 25, 1987)

Sec. 29-232-110. Repairs and renewal of fittings and appliances

Whenever repairs are made to fitting or appliances, or it becomes necessary to replace them, the work must comply with the requirements for new installations contained in section 29-232-81.

(Effective August 25, 1987)

Sec. 29-232-111. Separation clause

If any section, subsection, sentence, clause, phrase, provision or exemption of these regulations is declared unconstitutional or invalid for any reason, such invalidity shall not affect the remaining portion or provisions hereof.

(Effective August 25, 1987)

Sec. 29-232-112. Materials

No boilers shall be installed in the state unless they conform with the provisions of Section II of the latest edition of the American Society of Mechanical Engineers Boiler & Pressure Vessel Code, entitled "Materials," and with addenda and amendments thereto.

(Adopted effective November 29, 1996)

Sec. 29-232-113. Nondestructive examination

No boilers shall be installed in this state unless they conform with the provisions of Section V of the latest edition of the American Society of Mechanical Engineers Boiler & Pressure Vessel Code, entitled "Nondestructive Examination," and with addenda and amendments thereto.

(Adopted effective November 29, 1996)

Sec. 29-232-114. Recommended guidelines for the care of heating boilers

No boilers shall be installed in the state unless they conform with the provisions of Section VI of the latest edition of the American Society of Mechanical Engineers

Boiler & Pressure Vessel Code, entitled “Recommended Guidelines for the Care of Heating Boilers,” and with addenda and amendments thereto.

(Adopted effective November 29, 1996)

Sec. 29-232-115. Recommended guidelines for the care of power boilers

No boilers shall be installed in the state unless they conform with the provisions of Section VII of the latest edition of the American Society of Mechanical Engineers Boiler & Pressure Vessel Code, entitled “Recommended Guidelines for the Care of Power Boilers,” and with addenda and amendments thereto.

(Adopted effective November 29, 1996)

Sec. 29-232-116. Welding and brazing qualifications

No boilers shall be installed in the state unless they conform with the provisions of Section IX of the latest edition of the American Society of Mechanical Engineers Boiler & Pressure Vessel Code, entitled “Welding and Brazing Qualifications,” and with addenda and amendments thereto.

(Adopted effective November 29, 1996)

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Procedure of the Codes and Standards Committee

Secs. 29-251-1—29-251-17.

Repealed, March 26, 1991.

Rules and Regulations for Procedure of the Codes and Standards Committee

Secs. 29-251-1a—29-251-13a.

Repealed, April 27, 2000.

Codes and Standards Committee Procedure

Sec. 29-251-1b. Definitions

As used in Sections 29-251-1b to 29-251-12b, inclusive, of the Regulations of Connecticut State Agencies:

- (1) “Appeal” means a hearing held as a contested case;
- (2) “C&S committee” or “committee” means the Codes and Standards Committee;
- (3) “Chairman” means the Codes and Standards Committee member elected in accordance with section 29-251-6b of the Regulations of Connecticut State Agencies;
- (4) “Committee member” means a member of the Codes and Standards Committee appointed to the committee in accordance with section 29-251 of the Connecticut General Statutes;
- (5) “Contested case” shall have the meaning ascribed to it in section 4-166 of the Connecticut General Statutes;
- (6) “Exemption or variation” means a modification of the State Building Code or the State Fire Safety Code in accordance with sections 29-254 and 29-296 of the Connecticut General Statutes, respectively;
- (7) “Accessibility modification” means a variation of or exemption from any provision of the State Building Code relating to the accessibility to, and use of, buildings and structures by persons with disabilities as set forth in subsection (b) of section 29-269 of the Connecticut General Statutes;
- (8) “Historic modification” means a set aside for historic buildings as set forth in section 29-259 of the Connecticut General Statutes;
- (9) “Meeting” shall have the meaning ascribed to it in section 1-200 of the Connecticut General Statutes;
- (10) “Outside qualified individual” means a person appointed by the chairman of the Codes and Standards Committee to assist a subcommittee as set forth in section 29-251-7b of the Regulations of Connecticut State Agencies;
- (11) “Subcommittee chairman” means a Codes and Standards Committee member appointed by the committee chairman to serve as chairman of a subcommittee; and
- (12) “Subcommittee member” means a Codes and Standards Committee member appointed by the chairman to serve on a subcommittee.

(Adopted effective April 27, 2000)

Sec. 29-251-2b. Purpose

(a) The objectives and purposes of the Codes and Standards Committee shall be as set forth in Chapter 541 of the Connecticut General Statutes.

(b) To accomplish the objectives and purposes referred to in subsection (a) of this section, the Codes and Standards Committee may use any consultants it may deem necessary or desirable, provided that the committee shall not obligate the Department of Public Safety for any expenditures for this purpose unless and until such expenditures have been approved by the Commissioner of Public Safety.

(Adopted effective April 27, 2000)

Sec. 29-251-3b. Committee office and records

The office of the C&S committee shall be at the Department of Public Safety, 1111 Country Club Road, P. O. Box 2794, Middletown, Connecticut 06457-9294. Committee records shall be maintained at the same location.

(Adopted effective April 27, 2000)

Sec. 29-251-4b. Membership

(a) Members of the Codes and Standards Committee shall be appointed by the Commissioner of Public Safety in accordance with section 29-251 of the Connecticut General Statutes.

(b) Resignations from the committee shall be in writing and transmitted to the chairman, who will then cause them to be forwarded to the Commissioner of Public Safety accompanied by a request to appoint a new member of the specific discipline required by section 29-251 of the Connecticut General Statutes.

(Adopted effective April 27, 2000)

Sec. 29-251-5b. Officers and their duties

(a) The officers of the C&S committee shall consist of a chairman, a vice-chairman and a secretary elected from the committee in accordance with Section 29-251-6b of the Regulations of Connecticut State Agencies.

(b) The chairman shall preside at all meetings of the committee and shall perform the duties normally conferred by parliamentary usage upon such officers. The chairman shall have the authority to appoint subcommittees, call special meetings and perform such other duties as may be prescribed by Sections 29-251-1b to 29-251-12b, inclusive, of the Regulations of Connecticut State Agencies.

(c) The chairman may participate in discussions of matters properly before the C&S committee and may vote thereon.

(d) The vice-chairman shall act for the chairman in his or her absence and may perform the duties prescribed for that office.

(e) The secretary shall keep the minutes and records of the C&S committee and shall, with the assistance of such Department of Public Safety staff as is available, prepare the agenda of regular and special meetings under the direction of the chairman, provide notice of all meetings to committee members at least one week prior to such meetings, attend to the correspondence of the C&S committee, and perform such other duties as are normally carried out by the secretary.

(f) In the absence of the secretary, the chairman shall appoint a secretary pro tem.

(Adopted effective April 27, 2000)

Sec. 29-251-6b. Election of officers

(a) An annual organization meeting shall be held at the regularly scheduled December meeting, at which time officers shall be elected and rules and procedures reviewed. Officers shall be elected by a majority vote of the members present. A quorum for this meeting shall consist of two-thirds of the appointed membership.

(b) Nominations shall be made from the floor at the annual organization meeting and election of the officers specified in subsection (a) of Section 29-251-5b of the Regulations of Connecticut State Agencies shall follow immediately thereafter.

(c) A candidate receiving a majority vote as specified in subsection (a) of this section shall be declared elected. Each such officer shall serve for a term of one year, beginning on January 1 or until his or her successor takes office. No officer shall serve in the same position for more than three years consecutively.

(d) Vacancies in offices shall be filled by regular election procedures as specified in this section and the member so elected to office shall serve until the next annual organization meeting.

(Adopted effective April 27, 2000; amended October 7, 2010)

Sec. 29-251-7b. Meetings

(a) Meetings of the C&S committee shall be held once in each month, except in July, in accordance with a schedule adopted at the annual meeting of the committee and filed with the Secretary of the State, or with proper notice, upon the call of the chairman. Special meetings shall be held at the call of the chairman. Unless otherwise specified, meetings shall be held in the office of the committee.

(b) Meetings of subcommittees shall be scheduled at the call of the chairman of the subcommittee.

(c) A minimum of one-half of the members of the committee shall constitute a quorum, and the number of votes necessary to transact business shall be a majority of those members present and voting. The notice of any special meeting shall specify the purpose of such meeting and no other business may be considered except by affirmative vote of two-thirds of the members of the C&S committee present and voting.

(d) The chairman shall appoint, as a minimum, the following subcommittees to assist in the orderly process of the purposes of the committee as set forth in Section 29-251-2a of the Regulations of Connecticut State Agencies:

- (1) Codes Amendment Subcommittee; and
- (2) Ethics and Procedures Subcommittee.

(e) The minimum membership of a subcommittee shall be three committee members. Three members of each subcommittee shall constitute a quorum, and the number of votes necessary to transact business shall be a majority of those members present and voting.

(f) The C&S committee chairman shall assign the duties of each subcommittee. Each such subcommittee shall report its recommendations to the committee. If so charged by the chairman, the report shall be in writing.

(g) The chairman may, with consent of the committee, appoint outside qualified individuals to assist the subcommittee in its work.

(h) Unless otherwise specified, "Robert's Rules of Order" shall govern the proceedings at all committee meetings.

(Adopted effective April 27, 2000; amended October 7, 2010)

Sec. 29-251-8b. Order of business

The order of business at regular meetings shall be:

- (1) Call to order;
- (2) Attendance;
- (3) Approval of minutes of previous meeting;
- (4) Communications;
- (5) Reports of subcommittees;

- (6) Old business;
- (7) New business;
- (8) Reports of hearing panels;
- (9) Good of the order; and
- (10) Adjournment.

(Adopted effective April 27, 2000)

Sec. 29-251-9b. Proposed amendments to the State Building Code

(a) The State Building Inspector shall provide each member of the C&S committee with a copy of any proposed amendment to the State Building Code. The proposed amendment shall be distributed so as to be received by each member at least two weeks before any meeting for the consideration of the proposed amendment.

(b) Proposed amendments selected for adoption shall be processed in accordance with section 29-254 of the Connecticut General Statutes.

(c) Proposed amendments shall be in writing in a form acceptable to the committee. They shall be referred, as soon as received, to the Codes Amendment Subcommittee. The Codes Amendment Subcommittee shall report to the committee at the direction of the chairman.

(d) The State Building Inspector or his or her designee shall have the right to comment on any proposed change or amendment at any time during discussion on or consideration of the proposal. He or she may be present at C&S committee or subcommittee meetings during deliberations.

(Adopted effective April 27, 2000)

Sec. 29-251-10b. Proposed amendments to the State Fire Safety Code

(a) The State Fire Marshal shall provide each member of the C&S committee with a copy of any proposed amendment to the State Fire Safety Code. The proposed amendment shall be distributed so as to be received by each member at least two weeks before any meeting for the consideration of the proposed amendment.

(b) Proposed amendments shall be in writing in a form acceptable to the committee. They shall be referred, as soon as received, to the Codes Amendment Subcommittee. The Codes Amendment Subcommittee shall report to the committee as directed by the chairman.

(c) The State Fire Marshal or his or her designee shall have the right to comment on any proposed amendment at any time during discussion on or consideration of the proposal. He or she may be present at C&S committee or subcommittee meetings during deliberations.

(Adopted effective April 27, 2000)

Sec. 29-251-11b. Appeals, exemptions or variations

(a) Any appeal to the committee shall be assigned to a panel of not fewer than three committee members. The decision of the panel shall be the decision of the C&S committee.

(b) In appeals to the committee under the provisions of section 29-309 of the Connecticut General Statutes, the committee shall first refer the appeal to the State Fire Marshal for review. The State Fire Marshal shall be asked to review the appeal for resolution by modification under the provisions of section 29-296 of the Connecticut General Statutes or by any other administrative or technical means pursuant to regulations adopted under authority of section 29-292 of the Connecticut General Statutes. The State Fire Marshal may gather such additional information and conduct such inspections as may be necessary before the appeal moves forward.

(c) For the purpose of determining the time limit for the committee to render a decision on an appeal, the hearing shall be deemed concluded upon receipt of the record required in Section 29-251-12b of the Regulations of Connecticut State Agencies.

(d) Regulations of the Department of Public Safety concerning Procedures for Hearings, sections 29-2-1 to 29-2-9, inclusive, of the Regulations of Connecticut State Agencies, shall apply to appeals before the C&S committee, as appropriate.

(Adopted effective April 27, 2000; amended October 7, 2010)

Sec. 29-251-12b. Record, transcripts

In any appeal hearing, a full and complete record of the testimony, documentary evidence and proceedings on every appeal shall be made, but need not be transcribed unless there is a further appeal or upon the request of any party or the committee. When a record is transcribed, it shall be made available to the requesting party upon payment of the reasonable costs of preparing such transcript.

(Adopted effective April 27, 2000)

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Assessment of Education Fee

Sec. 29-251c-1. Determination of education fee to be assessed against applicants for building permits by the state building inspector and municipal building officials

(a) The education fee to be assessed as required by subsection (b) of section 29-252a of the Connecticut General Statutes, and subsection (b) of section 29-263 of the Connecticut General Statutes, shall be set annually by the Commissioner of Public Safety, hereafter “the Commissioner,” after the training and education budget has been approved by the Code Training and Education Board of Control as provided in subsection (b) of section 29-251c of the Connecticut General Statutes.

(b) The amount of such education fee for any year shall be determined by estimating the total construction value of all building permit applications that are anticipated to be filed in the state that year, dividing the Commissioner’s training and education budget total for that year by that number, multiplying the result by 1,000, and then adding the fee anticipated to be retained by the municipality for that year (the “municipal retention fee”). Expressed as a formula, such calculation shall be performed as follows: $(\text{Training and Education Budget} / \text{Total Construction Value of Building Permit Applications} \times 1,000) + \text{Municipal Retention Fee} = \text{Education Fee}$. The resulting number shall be rounded to two decimal places and shall be expressed in hundredths of a dollar per 1,000 dollars of construction value.

(c) The education fee assessment may be adjusted downward or upward annually, as necessary, provided that any annual increase shall not exceed four cents.

(d) In forecasting the total construction value of building permit applications that may be filed in the next fiscal year, the Commissioner shall consider the current year’s value to date and may consider forecasts of future construction activity from the Connecticut Department of Economic and Community Development or such other sources as the Commissioner deems reliable and appropriate.

(e) Prior to a final annual determination of the education fee amount, the Commissioner shall afford all interested persons reasonable opportunity to submit data, views or arguments regarding the education fee, orally at a hearing or in writing.

(f) Once the amount of the education fee has been determined, the Commissioner shall notify each municipal building official of any necessary fee adjustment.

(Adopted effective March 1, 2000; amended July 1, 2008)

Sec. 29-251c-2. Determination of education fee portion to be retained by municipal building departments for administrative costs

(a) After a budget for training and education has been approved in accordance with subsection (b) of section 29-251c of the Connecticut General Statutes, each municipal building official may provide the Commissioner of Public Safety with any documentation necessary to demonstrate the municipality’s need for a particular level of funding to defray the costs of collecting and transmitting education fee proceeds to the Department of Public Safety.

(b) The Commissioner shall set the portion of the education fee to be retained by each municipal building department at not less than one and not more than three cents.

(c) Interested persons may submit data, views or arguments regarding such portion to the Commissioner in accordance with the provisions of subsection (e) of Sec. 29-251c-1 of the Regulations of Connecticut State Agencies. The Commissioner may consider such data, views or arguments in determining the portion of the education fee to be retained by each municipal building department.

(d) After the Commissioner determines the portion of the fee that may be retained, each municipal building official shall be notified of that amount.

(Adopted effective March 1, 2000; amended July 1, 2008)

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Connecticut State Building Code

Sec. 29-252-1.

Repealed, October 16, 1989.

Sec. 29-252-1a.

Repealed, June 15, 1994.

Sec. 29-252-1b.

Repealed, May 1, 1999.

Sec. 29-252-1c.

Repealed, December 31, 2005.

STATE BUILDING CODE– 2005 CONNECTICUT SUPPLEMENT

2009 AMENDMENT

Sec. 29-252-1d. State Building Code – 2009 Amendment to the 2005 Connecticut Supplement

The 2003 International Building Code, 2003 International Existing Building Code, 2003 International Plumbing Code, 2003 International Mechanical Code, 2006 International Energy Conservation Code and 2003 International Residential Code of the International Code Council, Inc. and the 2005 NFPA 70 National Electrical Code of the National Fire Protection Association Inc., except as amended, altered or deleted by this Connecticut Supplement, are hereby adopted by reference as the 2005 State Building Code. The requirements of the 2009 Amendment to the 2005 State Building Code shall apply to all work for which a permit application was made on or after the date of adoption.

Copies of the International Codes may be obtained from the International Code Council, Inc., 4051 W. Flossmoor Rd., Country Club Hills, IL 60478 (website: www.iccsafe.org). Copies of the 2005 NFPA 70 National Electrical Code may be obtained from the National Fire Protection Association Inc., 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101 (website: www.nfpa.org). Copies of the 2005 Connecticut Supplement and the 2009 Amendment may be downloaded from www.ct.gov/dps.

2009 AMENDMENT TO THE 2005 CONNECTICUT SUPPLEMENT

Add: A section or subsection in the Connecticut Supplement preceded by (Add) indicates the addition of this section or subsection to the adopted referenced standard.

Amd: A section or subsection in the Connecticut Supplement preceded by (Amd) indicates the substitution of this section or subsection in the adopted referenced standard.

Del: A section or subsection in the Connecticut Supplement preceded by (Del) indicates the deletion of this section or subsection from the adopted referenced standard.

AMENDMENTS TO THE 2003 INTERNATIONAL BUILDING CODE

CHAPTER 1 - ADMINISTRATION

(Amd) **101.1 Title.** Section 29-252-1d, together with the 2003 International Building Code, 2003 International Existing Building Code, 2003 International Plumbing Code, 2003 International Mechanical Code, 2006 International Energy Conservation Code, 2003 International Residential Code and the 2005 NFPA 70 National Electrical Code shall be known as the 2005 State Building Code, hereinafter referred to as “the code” or “this code”.

(Amd) **101.2 Scope.** The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exceptions:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the 2003 International Residential Code.
2. Existing buildings undergoing repair, movement, alterations or additions and change of occupancy shall be permitted to comply with the 2003 International Existing Building Code. The choice to comply with this code or the 2003 International Existing Building Code shall be made by the permit applicant at the time of application for the building permit and shall be indicated on the construction documents in writing.

(Amd) **105.1 Required.** Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to move a lot line that will affect any existing building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

(Amd) **105.2 Work exempt from permit.** Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws, statutes, regulations or ordinances of the jurisdiction. Permits shall not be required for the following work:

Building:

1. Fences not over 6 feet high.
2. Retaining walls that are not over 3 feet in height measured from finished grade at the bottom of the wall to finished grade at the top of the wall, unless supporting a surcharge or impounding Class I, II or III-A liquids.
3. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2 to 1.
4. Sidewalks, driveways and on-grade concrete or masonry patios not more than 30 inches above adjacent grade and not over any basement or story below and which are not part of an accessible route.
5. Painting, papering, tiling, carpeting, cabinets, countertops and similar finish work not involving structural changes or alterations.
6. Temporary motion picture, television and theater stage sets and scenery.
7. Prefabricated swimming pools accessory to a Use Group R-3 occupancy, as applicable in Section 101.2, which are less than 24 inches deep, do not exceed 5,000 gallon capacity and are installed entirely above ground.
8. Shade cloth structures constructed for nursery or agricultural purposes and not including service systems.
9. Swings and other playground equipment.
10. Window awnings supported by an exterior wall which do not project more than 54 inches from the exterior wall and do not require additional support of Group R-3, as applicable in Section 101.2 and Group U occupancies.
11. Movable cases, counters and partitions not over 5 feet 9 inches in height and not containing any electrical, plumbing or mechanical equipment.
12. Portable grandstands or bleachers providing seating for fewer than 100 persons when located outside of a building.

(Add) **105.2.5 Federal agency exemptions.** A federal agency performing construction on federally owned land or on leased land totally under the control of the federal government shall not be required to obtain a building permit or a demolition permit from the local building official.

(Amd) **107.1 General.** The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant a single 180-day extension for demonstrated cause.

Exception: Tents, canopies and other membrane structures erected for a period of fewer than 180 days shall comply with Section 3103 of this code.

(Add) **109.3.8.1 Electrical inspections.** Required electrical inspections shall include installations of temporary services prior to activation; installation of underground piping and conductors after trenches are excavated and bedded and before backfill is put in place; rough inspections of installed wiring and components after the roof, framing, fireblocking and bracing are complete and prior to concealment; and final inspection after all work required by the permit is complete.

(Add) SECTION 117 – VACANT BUILDINGS

(Add) **117.1 General.** Temporarily unoccupied buildings, structures, premises or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with this section.

(Add) **117.1.1 Abandoned premises.** Buildings, structures and premises for which an owner cannot be identified or located by dispatch of a certificate of mailing to the last known or registered address, which persistently or repeatedly become unprotected or unsecured; which have been occupied by unauthorized persons or for illegal purposes; or which present a danger of structural collapse or fire spread to adjacent properties shall be considered abandoned, declared unsafe and abated or demolished in accordance with this code.

(Add) **117.2 Safeguarding vacant premises.** Temporarily unoccupied buildings, structures, premises or portions thereof shall be secured and protected in accordance with this section.

(Add) **117.2.1 Security.** Exterior openings and interior openings accessible to other tenants or unauthorized persons shall be boarded, locked, blocked or otherwise protected to prevent entry by unauthorized individuals.

(Add) **117.2.2 Fire protection.** Fire alarm, sprinkler and standpipe systems shall be maintained in an operable condition at all times.

Exceptions:

1. When the premises have been cleared of all combustible materials and debris and, in the opinion of the code official, the type of construction, fire separation distance and security of the premises do not create a fire hazard.
2. Where buildings will not be heated and fire protection systems will be exposed to freezing temperatures, fire alarm and sprinkler systems are permitted to be placed out of service and standpipes are permitted to be maintained as dry systems (without an automatic water supply) provided

the building has no contents or storage, and windows, doors and other openings are secured to prohibit entry by unauthorized persons.

(Add) **117.2.3 Fire separation.** Fire-resistance-rated partitions, fire barriers and fire walls separating vacant tenant spaces from the remainder of the building shall be maintained.

(Add) **117.3 Removal of combustibles.** Persons owning, or in charge or control of, a vacant building or portion thereof, shall remove all accumulations of combustible materials and flammable or combustible waste or rubbish from such space. The premises shall be maintained clear of waste or hazardous materials.

Exceptions:

1. Buildings or portions of buildings undergoing additions, alterations, repairs or change of occupancy under a valid permit in accordance with this code.
2. Seasonally occupied buildings.

(Add) **117.4 Removal of hazardous materials.** Persons owning, or in charge or control of, a vacant building or portion thereof, shall remove all accumulations of hazardous materials as defined by this code.

CHAPTER 3 – USE AND OCCUPANCY CLASSIFICATION

(Amd) **304.1 Business Group B.** Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

Airport traffic control towers;

Animal hospitals, kennels and pounds;

Banks;

Barber and beauty shops;

Buildings or tenant spaces used for assembly purposes by fewer than 50 persons when they are not accessory to other occupancies;

Car wash;

Civic administration;

Clinic – outpatient;

Dry cleaning and laundries; pick-up and delivery stations and self-service;

Educational occupancies for students above the 12th grade;

Electronic data processing;

Laboratories; testing and research;

Motor vehicle showrooms;

Post offices;

Print shops;

Professional services (architects, attorneys, dentists, physicians, engineers, etc.);
Radio and television stations;
Telephone exchanges;
Training and skill development not within a school or academic program.

(Add) **304.1.1 In-home Group B occupancies.** Customary in-home business occupancies located within a single-family dwelling unit, that provide professional services and employ a maximum of one employee within the dwelling in addition to the residents of the dwelling unit, shall be classified as a Group R-3 occupancy or shall be permitted to comply with the requirements of the 2003 International Residential Code portion of the 2005 State Building Code.

(Amd) **305.2 Day care.** The use of a building or structure, or portion thereof, for educational, supervision or personal care services for fewer than 24 hours per day for more than six children 3 years of age or older, shall be classified as a Group E occupancy.

(Add) **307.5.1 Consumer fireworks, Class 1.4G.** Sparklers and fountain display items permitted to be sold in Connecticut shall be exempt from the requirements of an H-3 occupancy under the following circumstances:

1. The total amount on display and in storage in any single control area complies with the maximum allowable quantities as listed in Table 307.7(1) of this code, or;
2. The new or existing retail store or retail sales facility complies with the provisions of NFPA 1124-06 for new stores and facilities as herein amended by the State of Connecticut.

Stores and facilities selling sparklers and fountain display items that are exempt from the requirements of an H-3 occupancy shall provide employee supervision of the fireworks display area; shall locate all fireworks a minimum of 5 feet from any building exit; and shall comply with the requirements of Part IV of the Connecticut State Fire Safety Code.

(Add) **307.5.2** The provisions of NFPA 1124-06 are amended for use in Connecticut as follows:

(Amd) **7.5.3 Storage Rooms.** Storage rooms containing consumer fireworks, regardless of size, in a new or existing permanent store shall be protected with an automatic sprinkler system installed in accordance with NFPA 13-02, Standard for the Installation of Sprinkler Systems, or separated from the retail sales area by a fire barrier having a fire resistance rating of not less than 1 hour. The quantity of fireworks permitted in storage shall not exceed 3,600 cubic feet, including packaging. Such storage shall be segregated into areas of 1,200 cubic feet or less, separated by a minimum of 4 feet of clear space.

(Amd) **308.3.1 Child care facility.** A child care facility that provides care on a 24-hour basis to more than five children less than 3 years of age shall be classified as Group I-2. Such a facility with five or fewer children less than 3 years of age shall be classified as Group R-3.

(Amd) **308.5.2 Child care facility.** A facility that provides supervision and personal care on less than a 24-hour-per-day basis for more than six children less than 3 years of age shall be classified as Group I-4.

Exceptions:

1. A child day care facility that provides care for more than six but no more than 100 children less than 3 years of age, when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.
2. As defined in section 19a-77 of the Connecticut General Statutes, a family day care home that accommodates six or fewer children of any age shall be classified as Group R-3 or shall comply with the 2003 International Residential Code in accordance with Section 101.2. During the regular school year, a maximum of three additional children who are in school full-time, including the provider's own children, shall be permitted, except that if the provider has more than three children who are in school full-time, all of the provider's children shall be permitted.

(Amd) **310.1 Residential Group R.** Residential Group R includes, among others, the use of a building or structure, or portions thereof, for sleeping purposes when not classified as an Institutional Group I. Residential occupancies shall include the following:

R-1 Residential occupancies where the occupants are primarily transient in nature (less than 30 days) including:

- Boarding houses;
- Hotels;
- Motels;
- Bed and breakfast establishments.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

- Apartment houses;
- Boarding houses (not transient);
- Convents;
- Dormitories;
- Fraternities and sororities;
- Monasteries;
- Hotels (not transient);
- Motels (not transient).

R-3 Residential occupancies with independent means of egress where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4 or I and where buildings do not contain more than two dwelling units as applicable in Section 101.2, or adult and child care facilities that provide accommodations for six or fewer persons of any age for less than 24 hours per day. Adult and child care facilities that are within a single-family home are permitted to comply with the 2003 International Residential Code. R-3 occupancies shall allow not more than six lodgers or boarders where personal care services are not provided.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than three but not more than 16 occupants, excluding staff. Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3 except as otherwise provided for in this code.

CHAPTER 4 – SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

(Amd) **402.9 Smoke control.** Covered mall buildings of two or more stories shall have a smoke control system installed in accordance with Section 909.

(Amd) **404.4 Smoke control.** A smoke control system shall be installed in accordance with Section 909.

Exceptions: Smoke control is not required for atriums that connect only two stories.

(Add) **419.1.1 Preschool, kindergarten and first grade.** Rooms normally occupied by preschool, kindergarten or first-grade students shall be located on a level of exit discharge.

Exception: Rooms located on levels other than a level of exit discharge shall be permitted to be normally occupied by preschool, kindergarten or first-grade students where such rooms are provided with an independent means of egress dedicated for use by the preschool, kindergarten or first-grade students.

(Add) **419.1.2 Second grade.** Rooms normally occupied by second-grade students shall be located not more than one story above a level of exit discharge.

Exception: Rooms located on levels other than one story above a level of exit discharge shall be permitted to be normally occupied by second-grade students where such rooms are provided with an independent means of egress dedicated for use by the second-grade students.

CHAPTER 5 – GENERAL BUILDING HEIGHTS AND AREAS

(Add) **506.4.1 Mixed occupancies.** In buildings of mixed occupancy, the allowable area per story (A_a) shall be based on the most restrictive provisions for each occupancy when the mixed occupancies are treated according to Section 302.3.1. When the occupancies are treated according to Section 302.3.2 as separated occupancies, the maximum total floor area for a building shall be such that the sum of the ratios for each such area on all floors as calculated according to Section 302.3.2 shall not exceed 2 for two-story buildings and 3 for buildings three stories or higher.

CHAPTER 7 – FIRE-RESISTANCE-RATED CONSTRUCTION

(Amd) **707.2 Shaft enclosure required.** Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this section.

Exceptions:

1. A shaft enclosure is not required for openings totally within a residential dwelling unit and connecting three stories or less.
2. A shaft enclosure is not required in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 for an escalator opening or a stairway which is not a portion of the means of egress protected according to Item 2.1 or 2.2:
 - 2.1 Where the area of the floor opening between stories does not exceed twice the horizontal projected area of the escalator or stairway and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13-02. In other than Groups B and M, this application is limited to openings that do not connect more than three stories.
 - 2.2 Where the opening is protected by approved power-operated horizontal automatic shutters at every floor penetrated. The shutters shall be of noncombustible construction and have a fire-resistance rating of not less than 1.5 hours. The shutter shall be so constructed as to close immediately upon actuation of a smoke detector installed in accordance with Section 907.10 and shall completely shut off the well opening. Escalators shall cease operation when the shutter begins to close. The shutter shall operate at a speed of not more than 30 feet per minute and shall be equipped with a sensitive leading edge to arrest its progress where in contact with any obstacle, and to continue its progress on release there from.
3. A shaft enclosure is not required for penetrations by pipe, tube, conduit, wire, cable and vents protected in accordance with Section 712.4.

4. A shaft enclosure is not required for penetrations by ducts protected in accordance with Section 712.4. Grease ducts shall be protected in accordance with the 2003 International Mechanical Code.
5. A shaft enclosure is not required for floor openings complying with the provisions for covered malls or atriums.
6. A shaft enclosure is not required for approved masonry chimneys, where annular space protection is provided at each floor level in accordance with Section 717.2.5.
7. In other than Groups I-2 and I-3, a shaft enclosure is not required for a floor opening that complies with the following:
 - 7.1. Does not connect more than two stories.
 - 7.2. Is not part of the required means of egress system except as permitted in Section 1019.1.
 - 7.3. Is not concealed within the building construction.
 - 7.4. Is not open to a corridor in Group I and R occupancies.
 - 7.5. Is not open to a corridor in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1 in any occupancy.
 - 7.6. Is separated from floor openings serving other floors by construction conforming to required shaft enclosures.
8. A shaft enclosure is not required for automobile ramps in open parking garages and enclosed parking garages constructed in accordance with Sections 406.3 and 406.4, respectively.
9. A shaft enclosure is not required for floor openings between a mezzanine and the floor below.
10. A shaft enclosure is not required for joints protected by a fire-resistant joint system in accordance with Section 713.
11. Where permitted by other sections of this code.

CHAPTER 9 – FIRE PROTECTION SYSTEMS

(Amd) **903.2.1.2 Group A-2.** An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet.

Exception: Existing restaurants in existing non-sprinklered buildings that were designated Use Group A-3 under a previous edition of the State Building Code that undergo addition, alteration or change of occupancy that results in an increase in the restaurant's fire area providing the proposed fire area does not exceed 12,000 square feet.
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than the level of exit discharge.

(Amd) **903.2.7 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all newly constructed buildings with a Group R fire area or in existing buildings that have a Group R fire area newly introduced by change of occupancy or by an addition.

Exceptions:

1. Group R-1 bed and breakfast establishments.
2. Existing buildings four stories or less in height undergoing a change of occupancy from a one- or two-family building or Group R-3 to Group R-2 containing not more than four dwelling units that does not involve an increase in height or area and where each dwelling unit has either:
 - 2.1 An exit door directly to the exterior at a level of exit discharge,
 - 2.2 Direct access to an exterior stair serving a maximum of two dwelling units on the same story, or
 - 2.3 Direct access to an interior stair serving only that dwelling unit and separated from all other portions of the building with 1-hour fire-resistance-rated fire barriers.
3. Existing buildings converted prior to June 15, 1994 from a one- or two-family building or Group R-3 to Group R-2 containing not more than four dwelling units.
4. Horizontal additions containing a newly introduced Group R occupancy that are added to existing buildings shall be required to have an automatic sprinkler system installed in the addition only if the addition is completely separated from the existing building by fire barriers with a minimum one-hour fire-resistance rating.

(Add) **903.2.7.1 Small residential care/assisted living facility alternative compliance.** An NFPA 13D automatic sprinkler system in accordance with Section 903.3.1.3 shall be permitted in a Group R-4 occupancy when all of the following conditions are met:

1. The facility is not in a building containing mixed occupancies,
2. The facility is limited to six or fewer occupants, excluding staff,
3. The building in which the facility is located is limited to two stories above grade and 40 feet in height,
4. The automatic sprinkler system is provided with a minimum 30-minute water supply,
5. All habitable and usable areas and closets are sprinklered, and
6. The sprinkler system is provided with valve supervision by one of the following methods:
 - 6.1. A single listed control valve that shuts off both domestic and sprinkler system water supply and a separate valve that shuts off the domestic system only.
 - 6.2. Electrical supervision connected to the facility's fire alarm system.

6.3. Valve closure that causes the sounding of an audible alarm audible throughout the premises.

(Add) **903.3.1.1.2 Vertical openings.** Closely spaced sprinklers and draft stops are not required around floor openings permitted to be unenclosed by this code unless the closely spaced sprinklers and draft stops are being utilized in lieu of an enclosure as specified by Exception 2.1 to Section 707.2.

(Amd) **903.3.1.2 NFPA 13R sprinkler systems.** Where allowed in buildings of Group R, up to and including four stories above grade and 60 feet in height, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13R.

(Add) **903.3.1.2.2 Mixed occupancies.** Buildings containing occupancies other than Group R shall not be permitted to utilize an NFPA 13R sprinkler system.

Exception: Buildings that comply with Section 508.2 that contain only Group R occupancies above the horizontal assembly shall be permitted to utilize an NFPA 13R sprinkler system above the horizontal assembly provided such occupancy complies with Section 903.3.1.2.

(Amd) **903.3.5.1.1 Limited area sprinkler systems.** Limited area sprinkler systems serving six sprinklers or less in any fire area are permitted to be connected to the domestic service where a wet automatic standpipe is not available. Limited area sprinkler systems connected to domestic water supplies shall comply with each of the following requirements:

1. Valves shall not be installed between the domestic water riser control valve and the sprinklers.

Exception to Item 1: An approved indicating control valve supervised electrically or locked or secured in the open position shall be permitted.

2. The domestic service shall be designed and installed in accordance with NFPA 13-02 or NFPA 13D-02.

(Amd) **903.3.5.2 Secondary water supply.** A secondary on-site water supply equal to the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings in Seismic Design Category D, E or F as determined by this code. The secondary water supply shall have a duration of not less than 30 minutes.

Exception: Existing buildings.

(Add) **905.2.1 Piping design.** The riser piping, supply piping and the water service piping shall be sized to maintain a residual pressure of at least 100 pounds per square inch (psi) at the topmost outlet of each riser

while flowing the minimum quantities of water specified based upon a pressure of 150 psi available at the fire department connection.

Exception: In buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or Section 903.3.1.2 and where the highest floor level is not more than 150 feet above the lowest level of fire department vehicle access, Class I standpipes shall have an automatic or manual-wet supply.

(Amd) **905.3.6 Helistops and heliports.** Buildings with a helistop or heliport that are equipped with a standpipe shall extend the standpipe to the roof level on which the helistop or heliport is located. All portions of the helistop and heliport area shall be within 150 feet of a 2.5-inch outlet on a Class I or Class III standpipe.

(Add) **906.1.1 Group R-1 bed and breakfast establishments.** In Group R-1 bed and breakfast establishments, portable fire extinguishers shall be required to be located in kitchens. All portable fire extinguishers shall be selected, installed and maintained in accordance with NFPA 10-02. A listed residential range top extinguisher unit or an approved commercial kitchen hood with a listed, approved automatic fire suppression system shall be permitted to be installed in lieu of the installation of a portable fire extinguisher in the kitchen.

(Add) **906.1.2 Group F occupancies.** Portable fire extinguishers shall be selected, installed and maintained in Group F occupancies in accordance with NFPA 10-02.

(Add) **907.9.3.1 Alarm transmission.** Where required by Section 907.9.3, the fire alarm system shall be arranged to automatically transmit the alarm to the municipal fire department via any of the following means in accordance with NFPA 72-02:

1. Auxiliary alarm system;
2. Central station connection;
3. Proprietary system; or
4. Remote station connection.

(Amd) **909.16 Fire-fighter's smoke control panel.** A fire-fighter's smoke control panel to be used solely for fire department emergency response purposes shall be provided and shall include manual control or override of automatic control for mechanical smoke control systems. The panel shall be located in a fire command center complying with Section 911 in high-rise buildings. In all other buildings, the fire-fighter's smoke control panel shall be installed in an approved location adjacent to the fire alarm control panel. The fire-fighter's smoke control panel shall comply with Sections 909.16.1 to 909.16.3, inclusive.

(Amd) **910.1 General.** Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions:

1. Frozen food warehouses used solely for storage of Class I and II commodities where protected by an approved automatic sprinkler system.

2. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, automatic smoke and heat vents shall not be required within these areas.

CHAPTER 10 – MEANS OF EGRESS

(Amd) **1003.2 Ceiling height.** The means of egress shall have a ceiling height of not less than 7 feet 6 inches.

Exceptions:

1. Sloped ceilings in accordance with Section 1208.2.
2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2.
3. Allowable projections in accordance with Section 1003.3.
4. Stair headroom in accordance with Section 1009.2.
5. Door height in accordance with Section 1008.1.1.

(Amd) **1003.3.2 Free-standing objects.** A free-standing object mounted on a post or pylon shall not overhang that post or pylon more than 4 inches where the lowest point of the leading edge is more than 27 inches and less than 80 inches above the walking surface. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches, the lowest edge of such sign or obstruction shall be 27 inches maximum or 80 inches minimum above the finish floor or ground.

Exception: This requirement shall not apply to sloping portions of handrails serving stairs and ramps.

(Add) **1003.8 Security device.** Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premises shall be prohibited.

(Add) **1003.9 Mirrors.** Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of egress travel.

(Amd) **1004.1.2 Number by Table 1004.1.2.** The number of occupants computed at a rate of one occupant per unit of area as prescribed in Table 1004.1.2.

Exception: Day care occupancies shall be calculated at a rate of one occupant per 35 square feet of net area.

(Amd) **1005.1 Minimum required egress width.** The means of egress width shall not be less than required by this section. The total width of means of egress in inches shall not be less than the total occupant load served by the means of egress multiplied by the factors in Table 1005.1 and not less than specified elsewhere in this code. The maximum capacity required from any story of a building shall be maintained to the termination of the means of egress.

Exception: Means of egress complying with Section 1024.

(Del) **1005.1.1 Balanced egress capacity.** Delete section in its entirety and replace with:

(Add) **1005.1.1 Multiple means of egress.** Multiple means of egress in buildings requiring more than one exit and in rooms or spaces requiring more than one means of egress shall be sized so that the loss of any one means of egress shall not reduce the required capacity of the remaining means of egress to a fraction less than that determined as follows:

$$\frac{(R-1)}{R} = C$$

where:

R = the number of required means of egress from a room, space or story as determined by Section 1014 or Section 1018

C = the minimum fraction of required egress capacity remaining after the loss of any one means of egress

(Add) **1006.3.1 When required.** The emergency means of egress illumination system shall be arranged to provide the required illumination automatically in the event of any interruption of normal lighting due to any of the following:

1. Failure of a public utility or other outside electrical power supply.
2. Opening of a circuit breaker or fuse.
3. Manual acts including accidental opening of a switch controlling normal lighting facilities.

(Amd) **1009.11.2 Intermediate handrails.** Intermediate handrails are required for stairs with a required width exceeding 75 inches so that all portions of the stairway width required for egress capacity are within 30 inches of a handrail. On monumental stairs, handrails shall be located along the most direct path of egress travel.

(Amd) **1010.7.1 Ramp surface.** The surface of ramps shall be of slip-resistant materials that are securely attached and in compliance with the provisions of Section 302.3 of the ICC/ANSI A117.1-2003 standard.

(Del) **1010.9 Edge protection.** Delete section and subsections in their entirety and substitute with:

(Add) **1010.9 Edge protection.** Edge protection for ramps shall be in accordance with Section 405.9 of the ICC/ANSI A117.1-2003 standard.

(Add) **1011.1.1 Floor proximity exit signs.** Where exit signs are required by Section 1011.1 of this code, exit access doors and exit doors shall additionally be marked by floor proximity exit signs in Group A occupancies with an occupant load of more than 300, Group B medical occupancies, Group I-1 occupancies, Group I-2 occupancies, Group R-1 hotels and motels and Group R-2 dormitories.

(Add) **1011.1.1.2 Approval.** Floor proximity exit signs shall be listed and labeled in accordance with UL 924, Emergency Lighting and Power Equipment, Edition 9, dated February 24, 2006.

(Add) **1011.1.2 Accessible exits.** Where exit signs are required by Section 1011.1 of this code, accessible exit doors at the level of exit discharge that lead directly to accessible paths of exit discharge shall additionally be marked by the International Symbol of Accessibility. Such symbol shall be not less than 6 inches high and shall be incorporated into the required exit sign or shall be located directly adjacent to it. Such symbol shall meet the requirements of Section 1011.

(Amd) **1012.2 Height.** Guards shall form a protective barrier not less than 42 inches high, measured vertically above the leading edge of the tread or the adjacent walking surface.

Exceptions:

1. For occupancies in Group R-1 bed and breakfast establishments and in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards whose top rail also serves as a handrail shall have a height not less than 34 inches and not more than 38 inches measured vertically from the leading edge of the stair tread nosing.
2. For occupancies in Group R-1 bed and breakfast establishments, level guards shall be not less than 36 inches high, measured vertically above the adjacent walking surface.
3. The height in assembly seating areas shall be in accordance with Section 1024.14.

(Amd) **1012.3 Opening limitations.** Open guards shall have balusters or ornamental patterns such that a 4-inch diameter sphere cannot pass through any opening up to a height of 34 inches. From a height of 34 inches to 42 inches above the adjacent walking surfaces, a sphere 8 inches in diameter shall not pass.

Exceptions:

1. The triangular openings formed by the riser, tread and bottom rail at the open side of a stairway shall be of a maximum size such that a sphere 6 inches in diameter cannot pass through the opening.
2. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, guards shall have horizontal rails, balusters or be of solid material such that a sphere with a diameter of 21 inches cannot pass through any opening.
3. In areas that are not open to the public, within occupancies in Group I-3, F, H or S, balusters, horizontal intermediate rails or other construction shall not permit a sphere with a diameter of 21 inches to pass through any opening.
4. In assembly seating areas, guards at the end or aisles where they terminate at a fascia of boxes, balconies and galleries shall have balusters or ornamental patterns such that a 4-inch-diameter sphere cannot pass through any opening up to a height of 26 inches. From a height of 26 inches to 42 inches above the adjacent walking surfaces, a sphere 8 inches in diameter shall not pass.
5. In Group R-1 bed and breakfast establishments, guards shall have balusters or ornamental patterns such that a 6-inch-diameter sphere cannot pass through any opening.

(Amd) **1013.2 Egress through adjoining spaces.** Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy and provide a discernable path of egress travel to an exit. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes. An exit access shall not pass through a room that can be locked to prevent egress. Means of egress from dwelling units or sleeping areas shall not lead through other dwelling units, sleeping areas, toilet rooms or bathrooms.

Exceptions:

1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or sleeping unit.
2. Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H occupancy when the adjoining or intervening rooms or spaces are of the same or a lesser hazard occupancy group.
3. Not more than 50 percent of the required exit access may travel through stockrooms in Group M occupancies when the stock is of the same hazard classification as that found in the main retail area; when the stockroom is not subject to locking from the egress side; and when there is a 44-inch

wide aisle defined by full or partial height fixed walls or similar fixed construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.

(Add) **1023.2.1 Remoteness.** Where two or more doors leading to exit discharge are required, a minimum of two such doors shall be placed a distance apart equal to not less than one-third of the length of the maximum overall diagonal dimension of the building served, measured in a straight line between doors. Additional doors leading to exit discharge shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available.

(Amd) **1024.2 Assembly main exit.** In Group A occupancies that are newly constructed, have an increase in the number of occupants by addition or alteration or are created by change of occupancy and that have a single main entrance, such main entrance shall also be the main exit. The main entrance/exit shall be of sufficient width to accommodate not less than two-thirds of the occupant load, but such width shall not be less than the total required width of all means of egress leading to the exit.

(Amd) **1025.3 Maximum height from floor.** Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches measured from the floor.

Exception: The 44-inch maximum height shall be permitted to be measured vertically above a fixed, permanent platform, step or steps whose minimum width shall equal or exceed the operable width of the opening and shall be centered on such opening and which shall comply with Section 1009.3.

(Add) **SECTION 1026 FLOOR PROXIMITY EGRESS PATH MARKING**

(Add) **1026.1 Where required.** In addition to means of egress illumination required by Section 1006, floor proximity egress path marking systems or devices shall be required in exit access corridors serving an occupant load greater than 30 in the following newly constructed occupancies:

1. Group A occupancies with a total occupant load greater than 300.
2. Group B medical occupancies.
3. Group E occupancies.
4. Group I-1 occupancies.
5. Group I-2 occupancies.
6. Group R-1 hotels and motels.
7. Group R-2 dormitories.

Exceptions:

1. Group E occupancies where each classroom has at least one door directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. In corridors or hallways located within Group R-1 and R-2 sleeping units or dwelling units.
3. Such systems shall not be required in existing buildings of any occupancy including those undergoing repair, addition, alteration or change of occupancy.

(Add) **1026.2 Size and location.** Where required by Section 1026.1, floor proximity egress path marking systems or devices shall be located on the walls of exit access corridors within 18 inches of the finished floor to provide a visible delineation of the path of travel along the exit access corridor. Such markings or devices shall be essentially continuous, except as interrupted by doorways, intersecting hallways and corridors or other similar architectural features. Where such systems or devices are photoluminescent, they shall be a minimum of 1 inch and a maximum of 2 inches in width.

(Add) **1026.3 Device or system requirements.** Floor proximity egress path marking systems or devices shall be listed and labeled and installed in accordance with the manufacturer's installation requirements. Such systems shall not incorporate arrows, chevrons, signs or alternating lighting patterns designed or intended to lead an occupant to any one specific exit in preference over another exit.

Exception: Systems incorporating arrows, chevrons, signs or alternating lighting patterns designed or intended to lead an occupant in any one specific direction shall be permitted in dead end corridors.

(Add) **1026.4 Materials.** Floor proximity egress path marking systems or devices shall be permitted to be made of any material, including paint. Such materials shall include, but not be limited to: self-luminous materials; photoluminescent materials; and electrical photo luminescent materials. Materials shall comply with either:

1. UL 1994 Standard for Luminous Egress Path Marking Systems, Edition 3, dated January 30, 2004, or
2. ASTM E 2072, except that the charging source shall be 1 fc (10 lux) of fluorescent illumination for 60 minutes, and the minimum luminance shall be 5 millicandelas per square meter after 90 minutes.

(Add) **1026.5 Illumination.** Floor proximity egress path marking systems or devices shall be continuously illuminated or shall illuminate within 10 seconds in the event of power failure. Illumination shall be maintained for a period of not less than 90 minutes following loss of power to the corridor within which the system or device is located.

(Add) **1026.5.1 Photoluminescent systems or devices.** Corridors where photoluminescent floor proximity exit path marking systems or devices are installed shall be provided with the minimum means of egress illumination required by Section 1006 for at least 60 minutes prior to periods when the building is occupied.

CHAPTER 11 - ACCESSIBILITY

(Amd) **1104.4 Multilevel buildings and facilities.** At least one accessible route shall connect each accessible level, including mezzanines, in multi-level buildings and facilities.

Exceptions:

1. An accessible route is not required to stories and mezzanines that comply with Sections 1103.2.15 and 1103.2.16, respectively.
2. In Group A, I, R and S occupancies, levels that do not contain accessible elements or other spaces required by Section 1107 or 1108 are not required to be served by an accessible route from an accessible level.
3. In air traffic control towers, an accessible route is not required to serve the cab and the floor immediately below the cab.
4. Where a two-story building or facility has one story with an occupant load of five or fewer persons that does not contain public use space, that story shall not be required to be connected by an accessible route to the story above or below.

(Amd) **1106.5 Van spaces.** For every six or fraction of six accessible parking spaces, at least one shall be a van-accessible parking space. Each public parking garage or terminal shall have a minimum of two van-accessible parking spaces complying with this section.

(Amd) **1107.4 Accessible route.** At least one accessible route shall connect accessible building or facility entrances with the primary entrance of each accessible unit, Type A unit and Type B unit within the building or facility and with those exterior and interior facilities that serve the units.

Exception: If the slope of the finished ground level between accessible facilities and buildings exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers prevent the installation of an accessible route, a vehicular route with parking that complies with Section 1106 at each public or common use facility or building is permitted in place of the accessible route.

(Amd) **1107.6.2.1.1 Type A units.** In occupancies in Group R-2 containing more than 20 dwelling units or sleeping units, at least 10 per

cent of the units shall be a Type A unit in accordance with ICC/ANSI A117.1-2003. All R-2 units on the site, within the building or within the complex, shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units.

Exceptions:

1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7.5.
2. Existing Group R-2 buildings or structures on a site or within a complex shall not contribute to the total number of units on a site.

(Del) **1107.6.3.1 Townhouses.** Delete section in its entirety without substitution.

(Del) **1107.7.2 Multistory units.** Delete section and subsections in their entirety and replace with:

(Add) **1107.7.2 Multistory units.** A multistory dwelling or sleeping unit that is not provided with elevator service is not required to be a Type B unit. Where a multistory unit is provided with external elevator service to only one floor, the floor provided with elevator service shall be the primary entrance to the unit and shall comply with the requirements for a Type B unit, providing provisions for living, sleeping, eating, cooking and a complete toilet and bathing facility on that floor. Where a multistory unit is provided with external elevator service to more than one floor of the unit, one floor shall be the primary entrance to the unit and shall comply with the requirements for a Type B unit, providing provisions for living, sleeping, eating, cooking and a complete toilet and bathing facility on that floor.

(Amd) **1109.2.2.1 Pull handle.** Where accessible water closet compartments or single occupancy toilet rooms are provided, the compartment or room doors shall have a pull handle mounted 6 inches from the hinge side on the compartment or room side of the door. This handle shall be between 26 inches and 36 inches from the floor and shall meet the requirements of Section 404.2.6 of ICC/ANSI A117.1-2003.

Exception: Compartments or rooms with self-closing, self-latching doors.

(Amd) **1109.13 Controls, operating mechanisms and hardware.** Controls, operating mechanisms and hardware intended for operation by the occupant, including switches that control lighting and ventilation, and electrical convenience outlets, in accessible spaces, along accessible routes or as parts of accessible elements shall be accessible.

Exceptions:

1. Operable parts that are intended for use only by service or maintenance personnel shall not be required to be accessible.
2. Electrical or communication receptacles serving a dedicated use shall not be required to be accessible.
3. Where two or more outlets are provided in a kitchen above a length of countertop that is required to be accessible that is uninterrupted by a sink or appliance, one outlet shall not be required to be accessible.
4. Floor electrical receptacles shall not be required to be accessible.
5. HVAC diffusers shall not be required to be accessible.
6. Except for light switches, where redundant controls are provided for a single element, one control in each space shall not be required to be accessible.
7. Access doors or gates in barrier walls and fences protecting pools, spas and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches maximum and 48 inches minimum above the finished floor or ground, providing the self-latching devices are not also self-locking devices, operated by means of a key, electronic opener or integral combination lock.

(Del) **1109.15 Stairways.** Delete section in its entirety without substitution.

CHAPTER 16 – STRUCTURAL DESIGN

(Amd) **1609.2 Definitions.** Amend the following definition:

WIND-BORNE DEBRIS REGION. Areas where the basic wind speed in accordance with Appendix K is 120 mph.

CHAPTER 17 – STRUCTURAL TESTS AND SPECIAL INSPECTIONS

(Amd) **1704.2.2 Fabricator approval.** Special inspections required by Section 1704.2.1 are not required where the work is done on the premises of the following certified fabricators:

1. A fabricator of structural steel that is certified by the American Institute of Steel Construction Inc.'s Fabricator Certification Program.
2. A fabricator of precast concrete that is certified by the Precast/Prestressed Concrete Institute's Plant Certification Program.
3. A fabricator of cold-formed steel trusses that is certified by the Truss Plate Institute's Quality Assurance Program.
4. A fabricator of wood trusses that is certified by the Truss Plate Institute's Quality Assurance Program.

Such fabricators shall not be exempt from special inspections required by Sections 1704.3, 1704.4 or 1704.6. At the completion of fabrication, the certified fabricator shall submit a certificate of compliance to the building official stating that the work was performed in accordance with the approved construction documents.

CHAPTER 18 – SOILS AND FOUNDATIONS

(Amd) **1805.2.1 Frost protection.** Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extending a minimum of 42 inches below finished grade;
2. Construction in accordance with ASCE 32-01; or
3. Erecting on solid rock.

Exception: Free-standing buildings or structures meeting all of the following conditions shall not be required to be protected:

1. Classified in importance category I (see Table 1604.5);
2. Area of 600 square feet or less; and
3. Eave height of 10 feet or less.

Footings shall not be cast on frozen soil.

(Add) **1806.2 Guards.** Retaining walls with a difference in finished grade from the top of the wall to the bottom of the wall that is greater than 4 feet shall be provided with guards complying with Sections 1012.2 and 1012.3 when there is a walking surface, parking lot or driveway on the high side located closer than 2 feet to the retaining wall. For the purposes of this section, grass, planting beds or landscaped areas shall not be considered a walking surface.

CHAPTER 27 – ELECTRICAL

(Add) **2702.2.20 Electric fire pumps.** Buildings provided with standby electrical power for the purpose of continuing operations or occupancy shall provide Type 60 standby power for any electric fire pump installed to provide an adequate water supply or minimum operating pressure to a required automatic sprinkler system.

CHAPTER 30 – ELEVATORS AND CONVEYING SYSTEMS

(Amd) **3006.4 Machine rooms and machinery spaces.** Elevator machine rooms and machinery spaces shall be enclosed with construction having a fire-resistance rating not less than the required rating of the hoistway enclosure served by the machinery. Openings

shall be protected with assemblies having a fire-resistance rating not less than that required for the hoistway enclosure doors.

Exception: Machine rooms and enclosed machine spaces that do not share a wall with the hoistway and are located remotely from the hoistway shall be permitted to be protected by an automatic fire-extinguishing system or be separated from the remainder of the building by fire barriers having a fire-resistance rating of not less than one hour with ¾-hour-rated opening protectives.

CHAPTER 31 – SPECIAL CONSTRUCTION

(Amd) SECTION 3103 TEMPORARY TENTS, CANOPIES AND MEMBRANE STRUCTURES

(Amd) **3103.1 General.** The provisions of this section shall apply to tents, canopies and other membrane structures, erected for a period of less than 180 consecutive calendar days out of any 365 consecutive calendar days. Those erected for a longer period of time shall comply with applicable sections of this code.

Exception: The Connecticut Tent and Portable Shelter Code shall apply to the following tents and portable shelters when such tents and portable shelters are not erected on the grounds of one- and two-family dwellings for private parties and no admission is charged:

1. Tents erected for less than 180 consecutive calendar days out of any 365 consecutive calendar days with an occupancy of 100 or more persons or covering an area in excess of 1,200 square feet.
2. Portable shelters erected for less than 180 consecutive calendar days out of any 365 consecutive calendar days with an occupancy of 100 or more persons.

(Amd) **3103.1.1 Permit required.** All temporary structures that cover an area in excess of 120 square feet, including all connecting areas or spaces with a common means of egress or entrance that are used or intended to be used for the gathering together of 10 or more persons, shall not be erected, operated or maintained for any purpose without obtaining a permit from the code official.

Exceptions:

1. Tents less than 350 square feet total area.
2. Tents 900 square feet and smaller in total area when occupied by fewer than 50 persons, which have no heating appliances, no installed electrical service and are erected for fewer than 72 hours.
3. Tents used exclusively for recreational camping purposes.

(Del) **3104.11 Ventilation.** Delete section in its entirety without substitution.

(Amd) **3105.3 Design and construction.** Awnings and canopies shall be designed and constructed to withstand wind or other lateral loads and live loads as required by Chapter 16 with due allowance for shape, open construction and similar features that relieve the pressures or loads. Structural members shall be protected to prevent deterioration. Awnings shall have frames of noncombustible material, fire-retardant-treated wood, wood of Type IV size, or 1-hour construction with combustible or noncombustible covers and shall be either fixed, retractable, folding or collapsible.

Exceptions:

1. Fixed awnings shall not be required to be designed to resist wind loads in excess of 90 mph.
2. Retractable awnings shall not be required to be designed to resist wind or snow loads.

(Amd) **3107.1 General.** Signs shall be designed, constructed and maintained in accordance with Appendix H of this code.

(Add) **3109.1.1 Health Department regulations.** No person shall construct, substantially alter or reconstruct a swimming pool until the construction documents and water discharge provisions have been approved by the Department of Public Health, in accordance with the regulations adopted pursuant to section 19a-36 of the Connecticut General Statutes.

Exception: Swimming pools accessory to owner-occupied, detached one- two- or three-family residences and swimming pools accessory to a single one-family townhouse where the pool is intended to be used exclusively by the owner and invited guests.

(Amd) **3109.4.1.1 Openings.** Openings in residential swimming pool barriers as defined by the exception to Section 3109.1.1 shall not allow passage of a 4-inch-diameter sphere. Openings in public swimming pool barriers shall not allow passage of a 2-inch diameter sphere.

(Add) **3109.4.1.7.1 Gates in accessible routes.** Access doors or gates in barrier walls and fences protecting pools, spas and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches maximum and 48 inches minimum above the finished floor or ground, providing the self-latching devices are not also self-locking devices, operated by means of a key, electronic opener or integral combination lock.

(Amd) **3109.5 Entrapment avoidance.** Entrapment avoidance for newly constructed pools and spas shall be in accordance with Sections 3109.5.1 to 3109.5.5, inclusive. Pools and spas undergoing structural

alterations or repairs, or alterations or repairs to the pool circulation system shall comply with Sections 3109.5.2 and 3109.5.3.

(Add) **3109.5.1 General.** Suction outlets shall be designed to produce circulation throughout the pool, spa or hot tub. Single outlet systems, such as automatic vacuum cleaner systems, or multiple suction outlets whether isolated by valves or otherwise shall be protected against user entrapment.

(Add) **3109.5.2 Suction fittings.** All pool and spa suction outlets shall be provided with a cover that conforms with ANSI/ASME A112.19.8-2007 or with an approved channel drain system.

Exception: Surface skimmers.

(Add) **3109.5.2.1 Fitting maintenance.** Any pool, spa or hot tub with a broken, loose or missing suction outlet cover shall be immediately placed out of service until repairs are completed and approved.

(Add) **3109.5.3 Atmospheric vacuum relief system required.** All pool and spa single or multiple outlet circulation systems other than pools equipped only with surface skimmers shall be equipped with atmospheric vacuum relief. Such vacuum relief systems shall include at least one approved or engineered method of the following type:

1. Safety vacuum release system conforming to ASME A112.19.17, or
2. An approved gravity drainage system operating through a surge tank.

(Add) **3109.5.4 Dual drain separation.** Single or multiple pump circulation systems shall be provided with a minimum of two (2) suction outlets of the approved type. A minimum horizontal or vertical distance of three (3) feet shall separate such outlets. The separation distance shall be measured from near point of opening to near point of opening. These suction outlets shall be piped so that water is drawn through them simultaneously, distributed as evenly as possible, through a vacuum relief protected line to the pump or pumps.

(Add) **3109.5.5 Pool cleaner fittings.** Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible position(s) at least six (6) and not greater than twelve (12) inches below the minimum operational water level or as an attachment to the skimmer(s).

CHAPTER 33 – SAFEGUARDS DURING CONSTRUCTION

(Add) **3303.7 Demolition of structures.** The demolition of structures shall be conducted in accordance with the State Demolition Code as found in chapter 541 of the Connecticut General Statutes and with Chapter 33 of this code.

CHAPTER 34 – EXISTING STRUCTURES

(Amd) **3403.4 Stairways.** An alteration or the replacement of an existing stairway in an existing structure shall not be required to comply with the maximum riser height and minimum tread depth requirements of a new stairway as outlined in Section 1009.3 where the existing space and construction will not allow a reduction in pitch or slope.

(Add) **3403.5 Means of egress.** In addition to the requirements of this code, means of egress in existing buildings undergoing additions, alterations or repairs shall meet the requirements of the provisions of Part IV of the Connecticut State Fire Safety Code for the proposed occupancy.

(Amd) **3406.3 Stairways.** Existing stairways in an existing structure shall not be required to comply with the maximum riser height and minimum tread depth requirements of a new stairway as outlined in Section 1009.3 where the existing space and construction will not allow a reduction in pitch or slope.

(Add) **3406.4 Means of egress.** In addition to the requirements of this code, means of egress in existing buildings undergoing change of occupancy shall meet the requirements of the provisions of Part IV of the Connecticut State Fire Safety Code for the proposed occupancy.

(Amd) **3408.1 Conformance.** Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

Exception: Buildings or structures moved into or within the jurisdiction shall be permitted to comply with the 2003 International Existing Building Code for relocated or moved buildings or structures.

(Amd) **3409.1 Scope.** The provisions of Sections 3409.1 through 3409.8 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as historic buildings.

Exception: Type B dwelling or sleeping units required by Section 1107 are not required to be provided in existing buildings and facilities undergoing alteration or in the existing portion of buildings to which additions are being made.

(Amd) **3409.3 Change of occupancy.** Existing buildings, or portions thereof, that undergo a change of group or occupancy shall have all of the following accessible features:

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to primary function areas.
3. Signage complying with Section 1110.

4. Accessible parking, where parking is being provided.
5. At least one accessible passenger loading zone, when passenger loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.
7. At least one accessible toilet room or toilet and bathing facility per gender complying with Section 1109.2.
8. At least one accessible means of egress complying with Section 1007.
9. Type A and Type B units as required by Section 1107.

Where it is technically infeasible as defined in Section 3402.1 to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the maximum extent technically feasible. Change of group or occupancy that incorporates any alterations or additions shall comply with this section and Sections 3409.4, 3409.5, 3409.6 and 3409.7.

(Amd) **3409.7.7 Dwelling or sleeping units.** Where I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered or added, the requirements of Section 1107 for Accessible, Type A or Type B units and Chapter 9 for accessible alarms apply only to the quantity of spaces being altered or added.

(Add) **3410.1.1 Means of egress.** In addition to the requirements of this code, means of egress in existing buildings utilizing the compliance alternatives of Section 3410 shall meet the requirements of the provisions of Part IV of the Connecticut State Fire Safety Code for the proposed occupancy.

CHAPTER 35 – REFERENCED STANDARDS

Add the following standard under ASME:
 ANSI/ASME A112.19.8-2007 Suction Fittings for Use in Swimming
 Pools, Wading Pools, Spas and Hot Tubs.....3109.5.2

(Amd) ICC International Code
 Council, Inc.
 4051 W. Flossmoor Rd.
 Country Club Hills, IL
 60478

Standard reference number	Title	Referenced in code section number
ICC/ANSI A117.1—03	Accessible and Usable Buildings and Facilities	.....406.2.2, 907.9.1.3, 1007.6.5, 1010.1, 1010.6.5, 1010.9, 1011.3, 1101.2, 1102.1, 1103.2.13, 1106.6, 1107.2, 1109.2.2, 1109.3, 1109.4, 1109.8, 1109.15, 3001.3, 3409.5, 3409.7.2, 3409.7.3
ICC 300—02	ICC Standard on Bleachers, Folding and Telescopic Seating, and Grandstands	.....1024.1.1
IEBC—03	International Existing Building Code™	.....101.2
IECC—06	International Energy Conservation Code®	.....101.4.7, 1203.3.2, 1301.1.1, 1403.2
IMC—03	International Mechanical Code®	.....101.4.3, 201.3, 307.9, 406.4.2, 406.6.3, 406.6.5, 409.3, 412.4.6, 414.1.2, 414.1.2.1, 414.1.2.2, 414.3, 415.7.1.4, 415.7.2, 415.7.2.8, 415.7.3, 415.7.4, 415.9.11.1, 416.3, 603.1, 707.2, 716.2.2, 716.5.4, 716.6.1, 716.6.2, 716.6.3, 717.5, 719.1, 903.2.12.1, 904.2.1, 904.11, 908.6, 909.1,

		909.10.2, 1014.5, 1016.4.1, 1203.1, 1203.2.1, 1203.4.2, 1203.4.2.1, 1203.5, 1209.3, 2304.5, 3004.3.1, 3410.6.7.1, 3410.6.8
IPC—03	International Plumbing Code ®	. . . . 101.4.4, 201.3, 415.7.4, 717.5, 903.3.5, 1206.3.3, 1503.4, 1807.4.3, 2901.1, 2902.1.1, 3305.1, 3401.3
SBCCI SSTD 10—99	Standard for Hurricane Resistant Residential Construction	. . . . . 1609.1.1, 2308.2.1
SBCCI SSTD 11—97	Test Standard for Determining Wind Resistance of Concrete or Clay Roof Tiles	. . . . . 1715.2.1, 1715.2.2
UBC Standard 18-2	Expansion Index Test	. . . . . 1802.3.2

(Amd) NFPA National Fire Protection
Association
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-
9101

Standard reference number	Title	Referenced in code section number
11—02	Low Expansion Foam	. . . . . 904.7
11A—99	Medium- and High- Expansion Foam Systems	. . . . . 904.7
12—00	Carbon Dioxide Extinguishing Systems	. . . . . 904.8, 904.11
12A—04	Halon 1301 Fire Extinguishing Systems	. . . . . 904.9
13—02	Installation of Sprinkler Systems	. . . . 704.12, 707.2, 903.3.1.1, 903.3.2, 903.3.5.1.1, 904.11, 907.8, 1621.3.10.1, 3104.5, 3104.9
13D—02	Installation of Sprinkler Systems in One- and	. . . . . 903.1.2, 903.3.1.3, 903.3.5.1.1

	Two-Family Dwellings and Manufactured Homes	
13R—02	Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height	. . . . . 903.1.2, 903.3.1.2, 903.3.5.1.1, 903.3.5.1.2, 903.4
14—03	Installation of Standpipe, Private Hydrants and Hose System	. . . . . 905.2, 905.3.4, 905.4.2, 905.8
16—03	Installation Foam-Water Sprinkler and Foam- Water Spray Systems	. . . . . 904.7, 904.11
17—02	Dry Chemical Extinguishing Systems	. . . . . 904.6, 904.11
17A—02	Wet Chemical Extinguishing Systems	. . . . . 904.5, 904.11
30—03	Flammable and Combustible Liquids Code	. . . . . 415.3
32—04	Drycleaning Plants	. . . . . 415.7.4
40—01	Storage and Handling of Cellulose Nitrate Motion Picture Film	. . . . . 409.1
61—02	Prevention of Fires and Dust Explosions in Agricultural and Food Product Facilities	. . . . . 415.7.1
72—02	National Fire Alarm Code	. . . . . 505.4, 901.6, 903.4.1, 904.3.5, 907.2, 907.2.1, 907.2.1.1, 907.2.10, 907.2.10.4, 907.2.11.2, 907.2.11.3, 907.2.12.2.3, 907.2.12.3, 907.4, 907.5, 907.9.2, 907.10, 907.14, 907.16, 907.17, 911.1, 3006.5
80—99	Fire Doors and Fire Windows	. . . . . 302.1.1.1, 715.3, 715.4.6.1, 715.4.4, 715.4.7.2, 715.5, 1008.1.3.3

Standard reference number	Title	Referenced in code section number
85—04	Boiler and Combustion System Hazards Code (Note: NFPA 8503 has been incorporated into NFPA 85)	415.7.1
99-02	Standard for Health Care Facilities	407.9, 407.10, 407.11, 420.2, 420.3
101—03	Life Safety Code	1024.6.2
110—02	Emergency and Standby Power Systems	2702.1
111—01	Stored Electrical Energy Emergency and Standby Power Systems	2702.1
120—04	Coal Preparation Plants	415.7.1
231C—98	See NFPA 13-2002	507.2
252—03	Standard Methods of Fire Tests of Door Assemblies	715.3.1, 715.3.2, 715.3.3, 715.3.4.1
253—00	Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source	406.6.4, 804.2, 804.3
257—00	Standard for Fire Test for Window and Glass Block Assemblies	715.3.3, 715.4, 715.4.1, 715.4.2
259—03	Test Method for Potential Heat of Building Materials	2603.4.1.10, 2603.5.3
265—02	Standard Method of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Wall Coverings	803.6.1, 803.6.1.1, 803.6.1.2
268—01	Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source	1406.2.1, 1406.2.1.1, 1406.2.1.2, 2603.5.7

285—98	Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Non-load- bearing Wall Assemblies Containing Combustible Components	.1407.10.4, 2603.5.5
286—00	Standard Method of Fire Test for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth	. . . . . 402.14.4, 803.2, 803.2.1, 803.5, 2603.4, 2603.8
409—04	Standard on Aircraft Hangers	. . . . ..412.2.6, 412.4.5
418—01	Standard for Heliports	. . . . . . . . 412.5.6
651—98	Machining and Finishing of Aluminum and the Production and Handling of Aluminum Powders	. . . . . . . . 415.7.1
654—00	Prevention of Fire & Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids	. . . . . . . 415.7.1
655—01	Prevention of Sulfur Fires and Explosions	. . . . . . . 415.7.1
664—02	Prevention of Fires Explosions in Wood Processing and Woodworking Facilities	. . . . . . . 415.7.1
701—04	Standard Methods of Fire Tests for Flame- Propagation of Textiles and Films	. . . . . 802.1, 805.1, 805.2, 3102.3.1, 3105.3
704—01	Standard System for the Identification of the Hazards of Materials for Emergency Response	. . . . . 414.7.2, 415.2
1124—06	Manufacture, Transportation, and Storage of Fireworks and Pyrotechnic Articles	. . . . . 307.5.2, 415.3.1
2001—04	Clean Agent Fire Extinguishing Systems	. . . . . . . . 904.10

(Amd) **SPRI**

Single-Ply Roofing
 Institute
 411 Waverly Oaks Road
 Suite 331B
 Waltham, MA 02452

Standard reference number	Title	Referenced in code section number
ES-1-03	Wind Design Standard for Edge Systems Used with Low Slope Roofing Systems	. . . . ..1504.5
RP – 4 – 02	Wind Design Guide for Ballasted Single-ply Roofing Systems	. . . . . . 1504.4

(Add) **APPENDIX K**

Municipality	Ground Snow Load, P_g (psf)	Basic Wind Speed (3 sec. gust)	MCE Spectral Accelerations	
			S_s	S_1
Andover	30	100	0.234	0.063
Ansonia	30	105	0.255	0.063
Ashford	35	100	0.230	0.063
Avon	35	95	0.241	0.064
Barkhamsted	40	90	0.236	0.065
Beacon Falls	30	100	0.253	0.064
Berlin	30	100	0.242	0.063
Bethany	30	105	0.249	0.063
Bethel	30	95	0.283	0.066
Bethlehem	35	95	0.253	0.065
Bloomfield	35	95	0.239	0.064
Bolton	30	100	0.235	0.063
Bozrah	30	110	0.225	0.060
Branford	30	110	0.233	0.061
Bridgeport	30	110	0.270	0.064
Bridgewater	35	95	0.267	0.066
Bristol	35	95	0.245	0.064
Brookfield	35	95	0.275	0.066
Brooklyn	35	105	0.229	0.062
Burlington	35	95	0.243	0.064
Canaan	40	90	0.230	0.065
Canterbury	35	105	0.227	0.061
Canton	35	95	0.240	0.065
Chaplin	35	105	0.231	0.062
Cheshire	30	100	0.244	0.063
Chester	30	110	0.225	0.060
Clinton	30	115	0.219	0.059
Colchester	30	105	0.230	0.061
Colebrook	40	90	0.231	0.065
Columbia	30	105	0.232	0.062
Cornwall	40	90	0.242	0.065
Coventry	30	100	0.233	0.063
Cromwell	30	100	0.239	0.063
Danbury	30	95	0.286	0.066
Darien	30	105	0.313	0.067

Deep River	30	115	0.222	0.060
Derby	30	105	0.255	0.063
Durham	30	105	0.235	0.062
Eastford	40	100	0.229	0.063
East Granby	35	90	0.235	0.065
East Haddam	30	110	0.226	0.060
East Hampton	30	105	0.234	0.062
East Hartford	30	95	0.238	0.064
East Haven	30	110	0.238	0.061
East Lyme	30	115/120 ²	0.215	0.058
Easton	30	105	0.280	0.065
East Windsor	35	95	0.235	0.064
Ellington	35	95	0.233	0.064
Enfield	35	95	0.233	0.065
Essex	30	115	0.219	0.059
Fairfield	30	105/110 ³	0.279	0.064
Farmington	35	95	0.242	0.064
Franklin	30	105	0.228	0.061
Glastonbury	30	100	0.238	0.063
Goshen	40	90	0.242	0.065
Granby	35	90	0.234	0.065
Greenwich	30	100	0.336	0.069
Griswold	30	110	0.225	0.060
Groton	30	120	0.209	0.057
Guilford	30	110	0.229	0.060
Haddam	30	110	0.229	0.061
Hamden	30	105/110 ³	0.243	0.062
Hampton	35	105	0.229	0.062
Hartford	30	95	0.239	0.064
Hartland	40	90	0.232	0.065
Harwinton	35	95	0.244	0.065
Hebron	30	105	0.234	0.062
Kent	40	90/swr ¹	0.252	0.066
Killingly	40	105	0.229	0.062
Killingworth	30	110	0.226	0.060
Lebanon	30	105	0.230	0.061
Ledyard	30	115	0.215	0.058
Lisbon	30	110	0.225	0.060
Litchfield	40	95	0.246	0.065
Lyme	30	115	0.214	0.058
Madison	30	110/115 ⁶	0.224	0.060
Manchester	30	100	0.237	0.063

Mansfield	35	100	0.231	0.062
Marlborough	30	105	0.235	0.062
Meriden	30	100	0.241	0.063
Middlebury	35	95	0.254	0.064
Middlefield	30	105	0.238	0.062
Middletown	30	105	0.238	0.062
Milford	30	110	0.253	0.062
Monroe	30	100	0.268	0.065
Montville	30	115	0.218	0.059
Morris	35	95	0.249	0.065
Naugatuck	30	100	0.251	0.064
New Britain	30	95	0.242	0.064
New Canaan	30	100	0.311	0.067
New Fairfield	35	95	0.281	0.066
New Hartford	40	90	0.240	0.065
New Haven	30	110	0.243	0.062
Newington	30	100	0.240	0.064
New London	30	120	0.210	0.057
New Milford	35	95	0.265	0.066
Newtown	30	95	0.274	0.065
Norfolk	40	90	0.232	0.065
North Branford	30	110	0.233	0.061
North Canaan	40	90	0.230	0.065
North Haven	30	105/110 ³	0.241	0.062
North Stonington	30	115	0.214	0.058
Norwalk	30	105/110 ⁴	0.300	0.066
Norwich	30	110	0.222	0.060
Old Lyme	30	115/120 ²	0.214	0.058
Old Saybrook	30	115	0.214	0.058
Orange	30	110	0.250	0.062
Oxford	30	100	0.258	0.064
Plainfield	35	105	0.226	0.061
Plainville	35	95	0.243	0.064
Plymouth	35	95	0.247	0.064
Pomfret	40	100	0.229	0.063
Portland	30	105	0.238	0.062
Preston	30	110/115 ⁷	0.221	0.059
Prospect	30	100	0.248	0.063
Putnam	40	100	0.229	0.063
Redding	30	100	0.288	0.066
Ridgefield	30	95	0.301	0.067
Rocky Hill	30	100	0.239	0.063

Roxbury	35	95	0.262	0.065
Salem	30	110	0.224	0.060
Salisbury	40	90/swr ¹	0.231	0.065
Scotland	30	105	0.228	0.061
Seymour	30	105	0.255	0.064
Sharon	40	90/swr ¹	0.240	0.065
Shelton	30	105/110 ⁵	0.260	0.064
Sherman	35	90	0.269	0.066
Simsbury	35	95	0.238	0.065
Somers	35	95	0.231	0.064
Southbury	35	95	0.262	0.065
Southington	30	100	0.245	0.064
South Windsor	30	95	0.237	0.064
Sprague	30	105	0.227	0.061
Stafford	35	95	0.230	0.064
Stamford	30	105	0.322	0.068
Sterling	35	105	0.227	0.061
Stonington	30	115/120 ⁸	0.208	0.057
Stratford	30	110	0.262	0.063
Suffield	35	95	0.233	0.065
Thomaston	35	95	0.248	0.065
Thompson	40	100	0.229	0.063
Tolland	35	100	0.233	0.062
Torrington	40	90	0.243	0.065
Trumbull	30	105/110 ³	0.270	0.064
Union	40	95	0.230	0.064
Vernon	30	100	0.235	0.064
Voluntown	30	110	0.223	0.059
Wallingford	30	105	0.240	0.062
Warren	40	90	0.249	0.065
Washington	35	95	0.256	0.065
Waterbury	35	95	0.250	0.064
Waterford	30	115/120 ²	0.210	0.057
Watertown	35	95	0.252	0.065
Westbrook	30	115	0.216	0.058
West Hartford	30	95	0.240	0.064
West Haven	30	110	0.245	0.062
Weston	30	105	0.292	0.066
Westport	30	105/110 ³	0.293	0.066
Wethersfield	30	100	0.239	0.063
Willington	35	100	0.231	0.063
Wilton	30	100	0.302	0.067

Winchester	40	90	0.236	0.065
Windham	30	105	0.229	0.062
Windsor	35	95	0.237	0.064
Windsor Locks	35	95	0.235	0.065
Wolcott	35	95	0.248	0.064
Woodbridge	30	105	0.250	0.063
Woodbury	35	95	0.257	0.065
Woodstock	40	100	0.228	0.063

Footnotes:

1. Western portions of these municipalities lie within the Special Wind Region.
2. Areas south of I-95 = 120 mph; areas north of I-95 = 115 mph
3. Areas south of Rt. 15 = 110 mph; areas north of Rt. 15 = 105 mph
4. Areas south of I-95 = 110 mph; areas north of I-95 = 105 mph
5. Areas east of Rt. 8 = 110 mph; areas west of Rt. 8 = 105 mph
6. Areas south of Rt. 80 = 115 mph; areas north of Rt. 80 = 110 mph
7. Areas south of Rt. 165 = 115 mph; areas north of Rt. 165 = 110 mph
8. Areas south of Rt. 184 = 120 mph; areas north of Rt. 184 = 115 mp

AMENDMENTS TO THE ICC/ANSI A117.1-2003

Chapter 5. General Site and Building Elements

(Del) **504 Stairways** Delete Section 504 in its entirety without substitution.

Chapter 6. Plumbing Elements and Facilities

(Amd) **604.5.3 Swing-up Grab Bars.** Where swing-up grab bars are installed in Type B dwelling units, a clearance of 18 inches minimum from the centerline of the water closet to any side wall or obstruction shall be provided. A swing-up grab bar shall be installed with the centerline of the grab bar 15 ¾ inches from the centerline of the water closet. Swing-up grab bars shall be 28 inches minimum in length, measured from the wall to the end of the horizontal portion of the grab bar.

Chapter 10. Dwelling Units and Sleeping Units

(Amd) **1004.3 Accessible Route.** Accessible routes within Type B dwelling units shall comply with Section 1004.3.

Exception: Exterior spaces less than 60 inches in depth.

(Add) **1004.3.3 Turning Space.** All rooms served by an accessible route shall provide a turning space complying with Section 304.

Exception: Toilet rooms and bathrooms not required to comply with Section 1004.11.3.1 or 1004.11.3.2.

(Del) **1004.13 Windows.** Delete section in its entirety without substitution.

AMENDMENTS TO THE 2003 INTERNATIONAL EXISTING BUILDING CODE

CHAPTER 1 – ADMINISTRATION

(Add) **101.13 Means of egress.** In addition to the requirements of this code, means of egress in existing buildings shall meet the requirements of the provisions of Part IV of the Connecticut State Fire Safety Code for the proposed occupancy.

CHAPTER 5 – ALTERATIONS-LEVEL 1

(Add) **505.2 Minimum standards.** In addition to the requirements of this code, means of egress in existing buildings shall meet the requirements of the provisions of Part IV of the Connecticut State Fire Safety Code for the proposed occupancy.

CHAPTER 6 – ALTERATIONS – LEVEL 2

(Amd) **605.2 General.** The means of egress shall comply with the requirements of this section.

Exceptions:

1. Where the work area and the means of egress serving it complies with Part IV of the 2005 Connecticut State Fire Safety Code.
2. For buildings constructed under a permit applied for on or after September 1, 1971, means of egress conforming to the requirements of the State Building Code under which the building was constructed shall be considered compliant means of egress providing that no unsafe conditions exist within the means of egress.

CHAPTER 8 – CHANGE OF OCCUPANCY

(Amd) **804.1 General.** In addition to the fire protection requirements of Section 812, the following requirements shall apply where a building or portions thereof undergo a change of occupancy classification.

(Add) **804.1.1 Fire sprinkler system.** Where a change of occupancy classification occurs that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with Chapter 9 of the 2003 International Building Code portion of the 2005 State Building Code, such system shall be provided throughout the building or portion thereof where the change of occupancy occurs.

(Add) **804.1.2 Fire alarm and detection system.** Where a change of occupancy classification occurs that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the 2003 International Building Code portion of the 2005 State Building Code, such system shall be provided throughout the building or portion thereof where the change of occupancy occurs. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with an existing fire alarm system, alarm notification appliances shall be provided throughout the area where the change of occupancy occurs and shall be automatically activated.

(Amd) **812.5 Accessibility.** Existing buildings or portions thereof that undergo a change of group or occupancy shall have all of the following accessible features:

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to primary function areas.
3. Signage complying with Section 1110 of the 2003 International Building Code.
4. Accessible parking, where parking is being provided.
5. At least one accessible passenger loading zone, when passenger loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.
7. At least one accessible toilet room or toilet and bathing facility per gender complying with Section 1109.2 of the 2003 International Building Code.
8. At least one accessible means of egress complying with Section 1007 of the 2003 International Building Code.
9. Type A and Type B units as required by Section 1107 of the 2003 International Building Code.

Where it is technically infeasible as defined in Section 202.1 to comply with the new construction standards for any of these requirements for a change of group or occupancy, the above items shall conform to the requirements to the maximum extent technically feasible. Changes of group or occupancy that incorporate any alterations or additions shall comply with this section and Sections 506.1 and 905.1 as applicable.

CHAPTER 14 – REFERENCED STANDARDS

(Amd) ICC International Code
 Council, Inc.
 4051 West Flossmoor
 Road
 Country Club Hills, IL
 60478

Standard reference number	Title	Referenced in code section number
IBC—03	International Building Code ®	101.2, 102.4.2, 106.1.1.1, 109.3.3, 109.3.8, 110.2, 202, 301.4, 401.4, 402.1, 403.2, 407.1.1.1, 407.1.1.3, Table 407.1.1.2, 407.1.2, 407.2, 407.3.1, 407.3.2.1.1, 407.3.5, 501.3, 502.1, 503.1, 503.2, 503.3, 506.1, 506.1.1, 506.1.7, 506.1.9, 507.2.1, 507.2.2, 601.3, 602.1, 603.2.1, 603.2.3, 603.3.2, 603.4, 603.5.2, 604.2, 604.2.2, 604.2.3, 604.2.4, 604.3, 605.2, 605.3.1, 605.4.3, 605.5, 605.6, 605.7.1, 605.8.1, 605.9.2, 605.10.2, 606.2, 606.3, 607.1, 607.2, 607.3, 607.4, 607.4.1, 607.4.3, 704.1.2, 704.2, 704.2.1, 705.2, 705.3, 707.2, 707.3, 707.5.1, 707.6, 707.7, 801.1, 801.3, 802.1, 802.2, 807.1, 807.2, 807.3.1, 811.1.1.1, 812.1.1, 812.1.2, 812.3.1, 812.4.1.1, 812.4.1.2, 812.4.1.3, 812.4.2.1, 812.4.2.3, 812.4.3.1, 812.4.3.3, 812.4.4.1, 812.4.4.3, 812.5, 902.1, 902.2, 903.1, 903.2, 903.3, 903.3.1, 903.3.2, 903.4, 903.5, 904.1, 904.2, 1001.4, 1002.3, 1002.5, 1005.2, 1005.9, 1101.2, 1102.1, 1102.2, 1102.2.1, 1102.3, 1102.4, 1102.5, 1102.6, 1201.2.2, 1201.2.3, 1201.2.4, 1201.2.5, 1201.3.3, 1201.4.1, 1201.6.1, 1201.6.1.1, 1201.6.2, 1201.6.2.1, 1201.6.3.1, 1201.6.3.2, 1201.6.13, 1201.6.4.1, 1201.6.5, 1201.6.5.1, 1201.6.6, 1201.6.7.1, 1201.6.8, 1201.6.9.1, 1201.6.10.1, 1201.6.11, 1201.6.11.1, 1201.6.12.1, 1201.6.15.1, Table 1201.6.15, 1201.6.16.1, 1201.6.17, 1201.6.17.1, 1201.6.18, 1201.6.18.1, 1201.6.19, 1301.6.1, 1301.6.4.1, 1301.6.7, 1306.3
ICC/ANSI A117.1—03	Guidelines for Accessible and Usable Buildings and Facilities	... Table 407.1.1.2, 506.1.2, 506.1.3
IECC—06	International Energy Conservation Code ®	503.3, 906.1
IMC—03	International Mechanical	101.2, 503.3,

	Code ®	609.1, 702.1.1, 702.2.1, 809.1, 1201.6.7.1, 1201.6.8, 1201.6.8.1
IPC—03	International Plumbing Code ®	. . .101.2, 410.2, 503.3, 610.1, 810.1, 810.2, 810.3, 810.5, 1301.5
IRC—03	International Residential Code ®	. . . . . 101.2, 403.2, 407.1.2, 507.2.1, 607.4.1, 607.4.3, 608.3, 703.2.1, 707.5.1, 707.6, 903.2, 903.3, 903.4, 904.1, 904.2, 1102.1, 1201.2.2, 1201.2.3
NBC—96	BOCA National Building Code ®	. . . . . .. 102.4.2

AMENDMENTS TO THE 2003 INTERNATIONAL PLUMBING CODE

CHAPTER 10 – TRAPS, INTERCEPTORS AND SEPARATORS

(Amd) **1003.3 Grease traps and grease interceptors.** Grease traps and grease interceptors that serve plumbing systems connected to private, on-site septic systems shall comply with the requirements of Sections 1003.3.1 to 1003.3.4.2, inclusive. Grease traps and grease interceptors that serve plumbing systems connected via a sanitary sewer to a publicly owned treatment works shall comply with the Department of Environmental Protection’s General Permit for the Discharge of Wastewater Associated with Food Preparation Establishments.

CHAPTER 13 – REFERENCED STANDARDS

(Amd) **ICC** International
Code Council, Inc.
4051 West Flossmoor
Road Country Club Hills,
IL 60478

Standard reference number	Title	Referenced in code section number
IBC—03	International Building Code	. . . . . 201.3, 305.4, 307.1, 307.2, 307.3, 308.2, 309.1, 310.1, 310.3, 403.1, Table 403.1, 404.1, 407.3, 417.6, 502.6, 606.5.2, 1106.5
ICC EC—03	ICC Electrical Code	. . . . . 201.3, 502.1, 504.3, 1113.1.3
IEBC—03	International Existing Building Code	. . . . .. . . . .101.2
IECC—06	International Energy	. . . . . 313.1,

	Conservation Code	607.2, 607.2.1
IFC—03	International Fire Code	..... 201.3, 1201.1
IFGC—03	International Fuel Gas Code	..... 101.2, 201.3, 502.1
IMC—03	International Mechanical Code	..... 201.3, 307.6, 310.1, 422.9, 502.1, 612.1, 1202.1
IPSDC—03	International Private Sewage Disposal Code	..... 701.2
IRC—03	International Residential Code	..... 101.2

AMENDMENTS TO THE 2003 INTERNATIONAL MECHANICAL CODE

CHAPTER 5 – EXHAUST SYSTEMS

(Add) **510.1.1 Laboratories.** For the purposes of the provisions of Section 510, a laboratory shall be defined as a facility where the use of chemicals is related to testing, analysis, teaching, research or developmental activities where chemicals are used or synthesized on a non-production basis, rather than in a manufacturing process.

(Amd) **510.7 Suppression required.** Ducts shall be protected with an approved automatic fire suppression system installed in accordance with the 2003 International Building Code portion of the 2005 State Building Code as amended.

Exceptions:

1. An approved automatic fire suppression system shall not be required in ducts conveying materials, fumes, mists and vapors that are nonflammable and noncombustible under all conditions and at any concentrations.
2. An approved automatic fire suppression system shall not be required in ducts where the largest cross-sectional diameter of the duct is less than 10 inches.
3. For laboratories, as defined in Section 510.1.1, automatic fire protection systems shall not be required in laboratory hoods or exhaust systems.

CHAPTER 15 – REFERENCED STANDARDS

(Amd) ICC International Code Council,
 Inc.
 4051 West Flossmoor
 Road
 Country Club Hills, IL
 60478

Standard reference number	Title	Referenced in code section number
IBC—03	International Building Code	. . .201.3, 202, 301.12, 301.14, 301.15, 302.1, 302.2, 304.7, 304.10, 308.8, 308.10, 401.4, 401.6, 406.1, 502.10, 502.10.1, 504.2, 506.3.3, 506.3.10, 506.3.12.2, 506.4.1, 509.1, 510.6, 510.6.1, 510.6.2, 510.7, 511.1.5, 513.1, 513.2, 513.3, 513.4.3, 513.5, 513.5.2, 513.5.2.1, 513.6.2, 513.10.5, 513.12, 513.12.2, 513.20, 602.2.1.5.1, 602.2.1.5.2, 602.3, 603.1, 603.10, 604.5.4, 607.1.1, 607.3.2.1, 607.5.1, 607.5.2, 607.5.3, 607.5.4, 607.5.4.1, 607.5.5, 607.5.5.1, 607.6, 701.4.1, 701.4.2, 801.3, 801.16.1, 801.18.4, 902.1, 908.3, 908.4, 910.3, 925.1, 1004.6, 1105.1, 1206.4, 1402.4, 1402.4.1
ICC EC—03	ICC Electrical Code	. . . . . 201.3, 301.7, 306.3.1, 306.4.1, 513.11, 513.12.1, 602.2.1.1
IEBC—03	International Existing Building Code	. . . . . 101.2
IECC—06	International Energy Conservation Code	. . . . . 202, 301.2, 303.3, 312.1, 603.9, 604.1, 1204.1, 1204.2
IFC—03	International Fire Code	. . . . . 201.3, 310.1, 311.1, 502.5, 502.7.2, 502.8.1, 502.9.5, 502.9.5.2, 502.9.5.3, 502.9.8.2, 502.9.8.3, 502.9.8.5, 502.9.8.6, 502.10, 502.10.3, 502.16.2, 509.1, 510.2.1, 510.2.2, 510.4, 513.12.3,

		513.15, 513.16, 513.17, 513.18, 513.19, 513.20.2, 513.20.3, 606.2.1, 908.7, 1101.9, 1105.3, 1106.5, 1106.6, 1301.1, 1301.2
IFGC—03	International Fuel Gas Code	..... 101.2, 201.3, 301.3, 701.1, 801.1, 901.1, 906.1, 1101.5
IPC—03	International Plumbing Code	..... 201.3, 301.8, 512.2, 908.5, 1002.1, 1002.2, 1002.3, 1005.2, 1006.6, 1008.2, 1009.3, 1101.4, 1201.1, 1206.2, 1206.3, 1401.2
IRC—03	International Residential Code	..... 101.2

(Del) **2006 INTERNATIONAL ENERGY CONSERVATION CODE:**
Delete document in its entirety and substitute with the 2009 International Energy Conservation Code as amended herein:

AMENDMENTS TO THE 2009 INTERNATIONAL ENERGY CONSERVATION CODE

CHAPTER 1 – ADMINISTRATION

(Amd) **101.1 Title.** These regulations shall be known as the 2009 International Energy Conservation Code portion of the 2005 State Building Code, hereinafter referred to as “the code” or “this code”.

(Amd) **101.5.2 Low energy buildings.** The following buildings, or portions thereof, separated from the remainder of the building by building thermal envelope assemblies complying with this code, shall be exempt from the building thermal envelope provisions of this code:

1. Those with a peak design rate of energy usage less than 3.4 British thermal units per hour per square foot (Btu/h ft²) or 1.0 watts per square foot (watt/ft²) of floor area for space conditioning purposes;
2. Those that do not contain conditioned space; or
3. Buildings and structures for which heating and cooling is supplied solely by utilization of non-purchased renewable energy sources including, but not limited to, on-site wind, on-site water or on-site solar power, or wood-burning heating appliances that do not rely on backup heat from other purchased, non-renewable sources.

(Add) **101.5.3 Energy efficiency standards for products.** In addition to the requirements of this code, the testing, certification and enforcement of efficiency standards for new products sold, offered for

sale or installed in the State of Connecticut shall be in compliance with section 16a-48 of the Connecticut General Statutes and regulations adopted under authority of said statute.

(Add) **101.6 Administrative matters not provided for.** Administrative matters not covered by this code shall be in accordance with the provisions of Chapter 1 of the 2003 International Building Code portion of the 2005 State Building Code.

(Amd) **102.1.1 Above code programs.** The State Building Inspector and the Codes and Standards Committee shall be permitted to deem a national, state or local energy efficiency program to exceed the energy efficiency required by this code. Such energy efficiency program may include, but not be limited to, the Leadership in Energy and Environmental Design Rating system, the Green Globes USA design program, as established by the Green Building Initiative, the National Green Building Standard, as established by the National Association of Home Builders, or an equivalent rating system approved in accordance with section 29-256a of the Connecticut General Statutes.

Buildings approved in writing by such an energy efficiency program shall be considered in compliance with this code. The requirements identified as "mandatory" in Chapters 4 or 5 of this code, as applicable, shall be met.

(Amd) **103.1 General.** Two sets of construction documents and other supporting data shall be submitted to the building official at the time of application for the building permit. The construction documents and designs submitted shall be prepared by a registered design professional when required by the provisions of chapters 390 or 391 of the Connecticut General Statutes.

Exception: The building official may waive the submission of construction documents and other supporting data not required to be prepared by a registered design professional if the work proposed is not required by the provisions of this code, or the building official determines that the nature of the work applied for is such that review of the construction documents is not necessary to obtain compliance with this code.

(Amd) **103.5 Retention of construction documents.** One set of approved construction documents shall be retained by the building official for a period as set forth in the records or disposition schedule adopted pursuant to chapter 188 of the Connecticut General Statutes.

(Amd) **106.1 General.** The codes and standards referenced in this code shall be those listed in Chapter 6, and such codes and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference. Any reference to the ICC codes shall

mean the Regulations of Connecticut State Agencies known as the State Building Code adopted pursuant to section 29-252 of the Connecticut General Statutes.

(Amd) **107.2 Schedule of permit fees.** As prescribed by law, each municipality shall establish a schedule of fees for each construction document review, building permit, certificate of approval and certificate of occupancy. A schedule of adopted fees shall be posted for public view.

(Del) **108.4 Failure to comply.** Delete in its entirety and replace with the following:

(Amd) **108.4 Unlawful continuance.** Any person who continues any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable for penalties in accordance with section 29-254a of the Connecticut General Statutes.

(Del) **SECTION 109 BOARD OF APPEALS.** Delete this section in its entirety and replace with the following:

(Add) **109.1 Means of appeal.** Means of appeal shall be in accordance with Section 112 of the 2003 International Building Code portion of the 2005 State Building Code.

CHAPTER 2 – DEFINITIONS

(Amd) **201.3 Terms defined in other codes.** Where terms are not defined in this code and are defined in other codes adopted as portions of the 2005 State Building Code, such terms shall have the meanings ascribed to them as in those codes.

(Add) **SECTION 202.1 DEFINITIONS.** Add the following definitions:

(Add) **BUILDING OFFICIAL.** The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative. The building official may also be known as the local building official or code official.

(Amd) **CODE OFFICIAL.** See building official.

(Add) **FULL CUTOFF LUMINAIRE.** A luminaire that allows no direct light emissions above a horizontal plane through the luminaire's lowest light-emitting part.

(Add) **GREENHOUSE.** A one-story structure, enclosing a nonhabitable space, with glazing in excess of 50 per cent of the gross area of the exterior walls and roof.

(Amd) **RESIDENTIAL BUILDING.** For this code, includes detached one and two-family dwellings and townhouses, as well as Group R-2, R-3 and R-4 buildings three stories or less in height.

(Amd) **SUNROOM.** A one-story structure, enclosing a habitable space, with glazing in excess of 40 per cent of the gross area of the exterior walls and roof, and with the area of windows and doors operable to the exterior equal to a minimum of 20 per cent of the area of the sunroom floor.

CHAPTER 4 – RESIDENTIAL ENERGY EFFICIENCY

(Del) **402.2.11 Thermally isolated sunroom insulation.** Delete in its entirety and replace with the following:

(Amd) **402.2.11 Prescriptive requirements for residential greenhouses and sunrooms.** Unconditioned greenhouses and sunrooms that are freestanding or thermally isolated from the conditioned space are exempt from the requirements of this code. As an alternative to demonstrating compliance with other requirements of this code, conditioned greenhouses and sunrooms shall meet the prescriptive envelope criteria in Table 402.2.11. R-values refer to installed insulation only, not to assembly values. For installed components with different R- or U- values, area-weighted averages shall be used to determine compliance with Table 402.2.11.

Greenhouses that are freestanding or that are attached to the outside of the building envelope capable of being closed off from the dwelling through the use of opaque walls and fixed or operable doors and windows shall be 400 square feet or less in area and shall have a maximum area-weighted fenestration U-value of 0.60.

Sunrooms that are freestanding or that are attached to the outside of the building envelope capable of being closed off from the dwelling through the use of opaque walls and fixed or operable doors and windows shall be 500 square feet or less in area and shall have a maximum area-weighted fenestration U-value of 0.50. Sunrooms that are connected with a conditioned space via a permanent opening shall be 350 square feet or less in area and shall have a maximum area-weighted fenestration U-value of 0.45.

(Add) **Table 402.2.11 Prescriptive envelope component criteria for residential greenhouses and sunrooms.**

BUILDING COMPONENT	MINIMUM R-VALUE
Opaque ceiling	R-19
Floor over unheated space	R-19
Opaque wall	R-11
Slab-on-grade perimeter insulation	R-5 ^a

a. Two feet minimum depth slab-on-grade perimeter insulation.

(Add) **402.2.12 Urea-formaldehyde insulation.** Pursuant to section 29-277 of the Connecticut General Statutes, urea-formaldehyde foamed-in-place insulation shall not be installed in any building or structure on or after June 1, 1981.

(Del) **402.3.5 Thermally isolated sunroom U-factor.** Delete without substitution.

(Add) **402.6 Moisture control.** Class I or II vapor retarders shall be provided on the interior side of the frame walls in Zone 5A.

Exceptions:

1. Basement walls;
2. Below-grade portions of any wall; or
3. Construction where moisture or its freezing will not damage the materials.

(Add) **402.6.1 Class III vapor retarders.** Class III vapor retarders shall be permitted where any one of the conditions in Table 402.6.1 is met.

(Add)

**TABLE 402.6.1
CLASS III VAPOR RETARDERS**

ZONE	CLASS III VAPOR RETARDERS PERMITTED FOR: ^a
5A	Vented cladding over OSB Vented cladding over plywood Vented cladding over fiberboard Vented cladding over gypsum Insulated sheathing with R-value ≥ R5 over 2x4 wall Insulated sheathing with R-value ≥ R7.5 over 2x6 wall

For SI: 1 pound per cubic foot = 16 kg/m³.

a. Spray foam with a minimum density of 2 lbs/ft³ applied to the interior cavity side of OSB, plywood, fiberboard, insulating sheathing or gypsum is deemed to meet the insulating sheathing requirement where the spray foam R-value meets or exceeds the specified insulating sheathing R-value.

(Add) **402.6.2 Material vapor retarder class.** The vapor retarder class shall be based on the manufacturer's certified testing or a tested assembly. The following shall be deemed to meet the class specified:

- Class I: Sheet polyethylene, non-perforated aluminum foil;
- Class II: Kraft-faced fiberglass or batts or paint with a perm rating greater than 0.1 and less than or equal to 1.0; or
- Class III: Latex or enamel paint.

(Add) **403.2.1.1 Duct insulation values.** Minimum duct insulation values stated in Section 403.2.1 shall be installed R-values.

(Amd) **403.2.3 Building cavities (Mandatory).** Building framing cavities shall not be used as supply or return ducts.

(Add) **403.4.1 Pipe insulation.** All service hot water piping within 10 feet of service water heating equipment shall be insulated to at least R-2. Systems with distribution manifolds shall be insulated between service water heating equipment and the distribution manifold or 10 feet, whichever is less. In addition, the first 5 feet of cold water pipes from the water heating tanks shall be insulated to at least R-2.

(Amd) **403.6 Equipment sizing (Mandatory).** Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies.

(Amd) **403.9.1 Pool heaters.** All pool heaters shall be equipped with a readily accessible on-off switch to allow shutting off the heater without adjusting the thermostat setting. Pool heaters fired by natural gas or liquefied petroleum gas (propane) shall not have continuously burning pilot lights.

CHAPTER 5 – COMMERCIAL ENERGY EFFICIENCY

(Del) **502.4.4 Hot gas bypass limitation.** Delete in its entirety.

(Del) **TABLE 502.4.4 MAXIMUM HOT GAS BYPASS CAPACITY.** Delete Table in its entirety.

(Add) **503.2.7.2 Duct insulation values.** Minimum duct insulation values stated in Section 503.2.7 shall be installed R-values.

(Add) **503.4.7 Hot gas bypass limitation.** Cooling systems shall not use hot gas bypass or other evaporator pressure control systems unless the system is designed with multiple steps of unloading or continuous capacity modulation. The capacity of the hot gas bypass shall be limited as indicated in Table 503.4.7.

Exception: Unitary packaged systems with cooling capacities not greater than 90,000 Btu/h (26 379 W).

(Add) **TABLE 503.4.7
MAXIMUM HOT GAS BYPASS CAPACITY**

RATED CAPACITY	MAXIMUM HOT GAS BYPASS CAPACITY (% of total capacity)
≤240,000 Btu/h	50%
>240,000 Btu/h	25%

For SI: 1Btu/h = 0.29 watts

(Add) **505.6.3 Light pollution controls.** When the power for exterior lighting is supplied through the energy service to the building, luminaires used for exterior lighting shall be full cutoff luminaires.

Exceptions:

1. Luminaires with an output of 150 watts incandescent or less, or the equivalent light output;
2. Luminaires intended to illuminate the façade of buildings or to illuminate other objects including, but not limited to, flagpoles, landscape and water features, statuary and works of art;
3. Luminaires for historic lighting on the premises of an historic building as defined in the 2003 International Existing Building Code or within a designated historic district;
4. Outdoor sports facility lighting of the participant sport area;
5. Emergency exit discharge lighting;
6. Low voltage landscape lighting;
7. Sign illumination;
8. Festoon lighting as defined in the 2005 NFPA 70 National Electrical Code; or
9. Temporary lighting for emergency, repair, construction, special events or similar activities.

CHAPTER 6 – REFERENCED STANDARDS

Add the following standard:

(Add) **ACCA** Air Conditioning Contractors of America
 2800 Shirlington Road, Suite 300
 Arlington, VA 22206

Standard reference number	Title	Referenced in code section number
Manual J—02	Residential Load Calculation-Eighth Edition	.....403.6
Manual S—04	Residential Equipment Selection	.....403.6

(Amd) **ICC** International Code Council, Inc.
 500 New Jersey Avenue, NW
 6th Floor
 Washington, DC 20001

Standard reference number	Title	Referenced in code section number

IBC—03	International Building Code®	.....303.2, 201.3
IFC—09	International Fire Code®	.....201.3
IFGC—09	International Fuel Gas Code®	.....201.3
IMC—03	International Mechanical Code®	.....503.2.5, 503.2.6, 503.2.7.1, 503.2.7.1.1, 503.2.7.1.2, 503.2.9.1, 503.4.5
IPC—03	International Plumbing Code®	.....201.3
IRC—09	International Residential Code®	201.3, 403.2.2, 403.6, 405.6.1, Table 405.5.2 (1)

(Amd) ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
 1791 Tullie Circle, NE
 Atlanta, GA 30329-2305

Standard reference number	Title	Referenced in code section number
119-88 (RA 2004)	Air Leakage Performance for Detached Single-family Residential Buildings	.....Table 405.5.2(1)
140-2007	Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs	.....506.6.1
146-1998	Testing and Rating Pool Heaters	.....Table 504.2
ANSI/ASHRAE/ACCA Standard 183-2007	Peak Cooling and Heating Load Calculations in Buildings Except Low-rise Residential Buildings	.....503.2.1
13256-1(2005)	Water-source Heat Pumps-Testing and Rating for	.....Table 503.2.3(2)

	Performance-Part 1:Water-to-air and Brine-to-air Heat Pumps (ANSI/ASHRAE/IESNA 90.1-2004)	
90.1-2007	Energy Standard for Buildings Except for Low-rise Residential Buildings (ANSI/ASHRAE/IESNA 90.1-2007 with ASHRAE Addenda 2008 Supplement	501.1, 501.2, 502.1.1, Table 502.2(2)
ASHRAE-2001, 2005	ASHRAE Handbook of Fundamentals	....402.1.4, Table 405.5.2(1)
ASHRAE-2004	ASHRAE HVAC Systems and Equipment Handbook - 2004	.....503.2.1

AMENDMENTS TO THE 2003 INTERNATIONAL RESIDENTIAL CODE**CHAPTER 1 - ADMINISTRATION**

(Amd) **R101.2 Scope.** The provisions of the 2003 International Residential Code for One- and Two-Family Dwellings shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures.

Exception: Existing buildings undergoing repair, movement, alteration or additions and change of occupancy shall be permitted to comply with the 2003 International Existing Building Code. The choice to comply with this code or the 2003 International Existing Building Code shall be made by the permit applicant at the time of application for the building permit.

(Add) **R101.4.7 Demolition of structures.** The demolition of structures shall be conducted in accordance with the State Demolition Code as found in Chapter 541 of the Connecticut General Statutes.

(Amd) **R105.1 Required.** Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to move a lot line that will affect any existing building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit.

(Add) **R109.1.5.2 Additional electrical inspections.** Required electrical inspections in addition to those required by Sections R109.1.2 and R 109.1.6 shall include installations of temporary services prior to activation and installation of underground piping and conductors after trenches are excavated and bedded and before backfill is put in place.

(Add) SECTION R117 – VACANT BUILDINGS

(Add) **R117.1 General.** Temporarily unoccupied buildings, structures, premises or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with Section 117 of the 2003 International Building Code portion of the 2005 State Building Code.

CHAPTER 2 - DEFINITIONS

(Add) **R202.1 Definitions.** Add or amend the following definitions:

(Amd) **BUILDING, EXISTING.** An existing building is a building or structure, or portion thereof, erected in whole or in part, for which a legal building permit and a certificate of occupancy has been issued. Buildings or structures or portions thereof erected prior to October 1, 1970 shall be deemed existing buildings regardless of the existence of a legal permit or a certificate of occupancy.

(Add) **COMPLEX.** For application of accessibility requirements, this term means any group of buildings located on a single parcel of land or on contiguous parcels of land or any building or group of buildings that are subdivided into separate occupancies and planned, financed, constructed or promoted by common management for the purpose of sale or lease of the entire complex or any subdivision thereof, excluding any single-family detached dwelling.

(Add) **ONE-FAMILY DWELLING.** A building containing one dwelling unit with not more than six lodgers or boarders where personal care services are not provided. Also known as a single-family dwelling.

(Add) **TWO-FAMILY DWELLING.** A building containing two dwelling units with not more than six lodgers or boarders per dwelling unit where personal care services are not provided.

(Amd) **WIND BORNE DEBRIS REGION.** Areas where the basic wind speed in accordance with Appendix M is equal to or greater than 120 miles per hour.

CHAPTER 3 – BUILDING PLANNING

(Amd) **R301.2.1.2 Internal pressure.** Windows in buildings located in windborne debris regions shall have glazed openings protected from windborne debris or the building shall be designed as a partially enclosed building in accordance with the 2003 International Building Code portion of the 2005 State Building Code. Glazed opening protection for windborne debris shall meet the requirements of the Large Missile Test of ASTM E1996 and of ASTM E 1886 referenced herein.

Exception: Wood structural panels with a minimum thickness of 7/16 inch and a maximum span of 8 feet shall be permitted for opening protection in one- and two-story buildings and for the first and second story of three-story buildings. Panels shall be precut and marked for location to cover the glazed openings with attachment hardware provided. Attachments shall be provided in accordance with Table R301.2.1.2 or shall be designed to resist

the components and cladding loads determined in accordance with the provisions of the 2003 International Building Code portion of the 2005 State Building Code.

(Amd) **R305.1 Minimum height.** Habitable rooms, hallways, corridors, bathrooms, toilet rooms, laundry rooms and basements shall have a ceiling height of not less than 7 feet. The required height shall be measured from the finished floor to the lowest projection from the ceiling.

Exceptions:

1. Beams, girders, pipes, ducts or other obstructions spaced not less than 4 feet on center shall be permitted to project not more than 6 inches below the required ceiling height.
2. Basements without habitable spaces shall have a ceiling height of not less than 6 feet, 8 inches. Beams, girders, pipes, ducts or other obstructions shall be permitted to project not more than 4 inches below the required ceiling height.
3. Not more than 50 per cent of the required area of a habitable room or space is permitted to have a sloped or furred ceiling less than 7 feet in height. No portion of the required floor area shall be less than 5 feet in height.
4. Bathrooms are permitted to have sloped or furred ceilings, but shall have a minimum ceiling height of 6 feet, 8 inches over the fixtures and at the front clearance area for the fixtures as shown in Figure R307.2. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet, 8 inches above a minimum area 30 inches by 30 inches at the showerhead.
5. Ceiling height in existing basements being converted to habitable space shall be not less than 6 feet, 10 inches clear except under beams, girders, pipes, ducts or other obstructions where the clear height shall be a minimum of 6 feet, 4 inches.

(Add) **R309.2.1 Detached garages.** Detached garages shall be separated from dwellings on the same lot as required by Section R309.2 with opening protection as required by Section 309.1. This provision shall not apply to garage walls that are perpendicular to the adjacent dwelling unit wall.

Exception: Detached garages that are separated from the dwelling by a minimum distance of 10 feet.

(Amd) **R310.1 Emergency escape and rescue openings required.** Habitable spaces located within basements and every sleeping room within the dwelling shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining habitable areas of the basement. Where emergency escape and rescue openings are provided, they shall have a sill height of not more than 44 inches above the floor. Where a door opening having a threshold below the

adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2.

Exceptions:

1. Habitable basements without sleeping rooms are not required to have emergency escape and rescue openings when they are provided with two remote, code-compliant stairways.
2. In existing buildings, basements being converted to habitable space without sleeping rooms are not required to have emergency escape and rescue openings.
3. The 44-inch maximum sill height shall be permitted to be measured vertically above a fixed, permanent platform, step or steps whose minimum width shall equal or exceed the operable width of the opening and shall be centered on such opening and which shall comply with Sections R311.5.3.1 and R311.5.3.2. Glazing in windows complying with this exception shall not be subject to the provisions of Section R308.4, item 10.

(Add) **R312.1 Retaining wall guards.** Retaining walls with a difference in finished grade from the top of the wall to the bottom of the wall that is greater than 4 feet shall be provided with guards complying with Section R312 when there is a walking surface, parking lot or driveway on the high side located closer than 2 feet to the retaining wall. For the purposes of this section, grass, planting beds or landscaped areas shall not be considered a walking surface.

(Amd) **R314.2.3 Attics and crawlspaces.** Within attics and crawlspaces where entry is made only for service of utilities, foam plastics shall be protected against ignition by 1 ½-inch-thick mineral fiber insulation, ¼-inch-thick wood structural panels, 3/8-inch particleboard, ¼-inch hardboard, 3/8-inch gypsum board or corrosion-resistant steel having a base metal thickness of 0.016 inch. The ignition barrier is not required where the foam plastic insulation has been tested in accordance with Section R314.3.

(Amd) **R314.3 Specific approval.** Foam plastic not meeting the requirements of Sections R314.1 and R314.2 may be specifically approved on the basis of one of the following approved tests: FM 4880, UL 1040, NFPA 286 with the acceptance criteria of Section R315.4, or UL 1715, or fire tests related to actual end-use configurations. The specific approval shall be based on the actual end-use configuration and shall be performed on the finished foam plastic assembly in the maximum thickness intended for use. Assemblies tested shall include seams, joints and other typical details used in the installation of the assembly and shall be tested in the manner intended for use.

(Amd) **R317.1 Two-family dwellings.** Dwelling units in two-family dwellings shall be separated from each other and from common spaces serving both dwelling units by wall or floor-ceiling assemblies having not less than a 1-hour fire-resistance rating when tested in accordance with ASTM E 119. Fire-resistance-rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall and wall assemblies shall extend to the underside of the roof sheathing. Fire-resistance-rated assemblies shall be supported to the foundation by construction with the same fire-resistance rating as the assembly supported.

Exception: A fire-resistance rating of ½ hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.

SECTION R322 – ACCESSIBILITY. Delete section in its entirety and replace with:

(Add) **R322 – ACCESSIBILITY**

(Add) **R322.1 Scope.** Detached one- and two-family dwellings shall be exempt from accessibility requirements. Attached multiple single-family dwellings (townhouses) shall comply with Section R322.2 for single-story townhouses and with Section R322.3 for multi-story townhouses. For the purposes of this section, a one-story above-grade dwelling with a finished basement shall be considered a multi-story townhouse. Required Type B units shall comply with ICC/ANSI A117.1-2003, as amended.

(Add) **R322.2 Single-story townhouses.** Where there are four or more townhouses in a single structure, each single-story townhouse shall be a Type B unit.

Exception: The number of Type B units shall be permitted to be reduced in accordance with Section R322.4.

(Add) **R322.3 Multi-story townhouses.** Buildings or complexes that contain 10 or more multi-story townhouses shall have at least 10 per cent Type B units. This requirement shall be met by providing a sufficient number of single-story Type B units or by providing a sufficient number of multi-story townhouses that incorporate a Type B unit on the street floor or by a combination of the two. Multi-story townhouses that incorporate a Type B unit on the street floor shall not be required to provide accessibility to floors above or below the street floor. The Type B unit on the street floor shall include provisions for living, sleeping, eating, cooking and a complete toilet and bathing facility on that floor.

Exceptions:

1. Structures with fewer than four dwelling units.
2. The number of Type B units shall be permitted to be reduced in accordance with Section R322.4.

(Add) **R322.4 General exceptions.** Where permitted by Sections R322.2 and R322.3, the required number of Type B units shall be permitted to be reduced in accordance with Sections R322.4.1 and R322.4.2.

(Add) **R322.4.1 Site impracticality.** On a site with multiple buildings, the number of units required by Sections R322.2 and R322.3 to be Type B units shall be permitted to be reduced to a percentage which is equal to the percentage of the entire site having grades, prior to development, which are less than 10 per cent, provided that not less than 20 per cent of the Type B units required by Sections R322.2 and R322.3 on the site are provided.

(Add) **R322.4.2 Design flood elevation.** The required number of Type B units shall not apply to a site where the lowest floor is required to be at or above the design flood elevation resulting in:

1. A difference in elevation between the minimum required floor elevation at the primary entrance and the closest vehicular and pedestrian arrival points, and
2. A slope exceeding 10 per cent between the minimum required floor elevation at the primary entrance and the closest vehicular and pedestrian arrival points.

(Add) **R322.5 Accessible route.** At least one accessible route shall connect accessible building or facility entrances with the primary entrance of each Type B unit within the building or complex and with those exterior and interior facilities that serve the units.

Exception: If the slope of the finished ground level between accessible facilities and buildings exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers prevent the installation of an accessible route, a vehicular route with parking that complies with Section 1106 of the 2003 International Building Code portion of the 2005 State Building Code at each public or common use facility or building is permitted in place of the accessible route.

(Add) **R322.6 Parking.** Two per cent, but not less than one, of each type of parking space provided in occupancies which are required to have Type B dwelling units shall be accessible. For each six or fraction of six accessible parking spaces, at least one shall be a van-accessible parking space.

(Add) **R322.6.1 Parking within or beneath a building.** Where parking is provided within or beneath a building, accessible parking spaces shall also be provided within or beneath the building.

Exception: Private parking garages within or beneath the building that contain no more than two parking spaces, that are

reserved for the exclusive use of a specific dwelling unit and are directly accessed from that dwelling unit are not required to be accessible.

(Add) **R322.6.2 Automobile accessible parking spaces.** Pursuant to subsection (h) of section 14-253a of the Connecticut General Statutes, parking spaces for passenger motor vehicles designated for the handicapped shall be as near as possible to a building entrance or walkway and shall be 15 feet wide including 5 feet of cross hatch. Cross-hatched portions shall not be shared between spaces.

(Add) **R322.6.3 Van accessible parking spaces.** Pursuant to subsection (h) of section 14-253a of the Connecticut General Statutes, parking spaces for passenger vans designated for the handicapped shall be as near as possible to a building entrance or walkway and shall be 16 feet wide including 8 feet of cross hatch. Cross-hatched portions shall not be shared between spaces.

(Add) **R322.6.3.1 Van access clearance.** Pursuant to subsection (i) of section 14-253a of the Connecticut General Statutes, each public parking garage or terminal shall have 8 feet 2 inches vertical clearance at a primary entrance and along the route to at least two parking spaces for passenger vans that conform to Section R322.6.3 and that have 8 feet 2 inches of vertical clearance.

(Add) **R322.7 Recreational facilities.** In townhouse occupancies where recreational facilities are provided, 25 per cent, but not less than one of each type of recreational facility serving the complex, shall be accessible in accordance with Chapter 11 of the 2003 International Building Code portion of the 2005 State Building Code.

(Add) **R322.8 Accessible common spaces.** Rooms and spaces available to the general public or common spaces available for use by residents and serving Type B units shall be accessible in accordance with Chapter 11 of the 2003 International Building Code portion of the 2005 State Building Code. Accessible common spaces shall include, but not be limited to, laundry facilities, toilet and bathing rooms, swimming pools, lounges, assembly spaces and any exterior spaces, including patios, terraces and balconies.

Exception: Recreational facilities in accordance with Section R322.7.

CHAPTER 4 – FOUNDATIONS

(Amd) **R403.1 General.** All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301

and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil.

Exception: Freestanding accessory structures with an area of 600 square feet or less and an eave height of 10 feet or less.

Footings and freestanding accessory structures as exempted above shall be supported on undisturbed natural soils or engineered fill.

(Amd) **R403.1.4.1 Frost protection.** Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extending a minimum of 42 inches below finished grade;
2. Constructing in accordance with Section R403.3;
3. Constructing in accordance with ASCE 32-01; and
4. Erecting on solid rock.

Exceptions:

1. Freestanding accessory structures with an area of 600 square feet or less and an eave height of 10 feet or less shall not be required to be protected.
2. Decks not supported by a dwelling need not be provided with footings that extend below the frost line.

Footings shall not bear on frozen soil.

(Add) **R405.3 Above grade drainage.** Above grade drainage systems, including but not limited to gutters and downspouts, roof drains, yard drains, etc. shall not be connected to the foundation drainage system of concrete, masonry or wood foundations.

CHAPTER 8 – ROOF-CEILING CONSTRUCTION

(Add) **R806.4 Conditioned attic assemblies.** Unvented conditioned attic assemblies (spaces between the ceiling joists of the top story and the roof rafters) are permitted when conditions 1 through 3 are met. Such attics shall not be required to be provided with a conditioned air supply or a source of heat.

1. No interior vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.
2. An air-impermeable insulation is applied in direct contact to the underside/interior of the structural roof deck. "Air-impermeable" shall be defined by ASTM E 283-04.
3. Sufficient insulation is installed to maintain the monthly average temperature of the condensing surface above 45 degrees F (7 degrees C). The condensing surface is defined as either the structural roof deck or the interior surface of an air-impermeable insulation applied in direct contact with the underside/interior of the structural roof deck. "Air-impermeable" shall be defined by ASTM E 283-04. For calculation purposes, an interior

temperature of 68 degrees F (20 degrees C) is assumed. The exterior temperature is assumed to be the monthly average outside temperature.

CHAPTER 11 – ENERGY EFFICIENCY

(Amd) **N1101.2.1 Detached one- and two-family dwellings.** Compliance shall be demonstrated by either:

1. Meeting the requirements of this chapter for buildings with a glazing area that does not exceed 15 per cent of the gross area of those exterior walls that comprise a portion of the thermal envelope; or
2. Meeting the requirements of the 2006 International Energy Conservation Code.

(Amd) **N1101.2.2 Townhouses.** Compliance shall be demonstrated by either:

1. Meeting the requirements of this chapter for buildings with a glazing area that does not exceed 25 per cent of the gross area of those exterior walls that comprise a portion of the thermal envelope; or
2. Meeting the requirements of the 2006 International Energy Conservation Code.

(Add) N1105 SECTION N1105 – SWIMMING POOLS

(Add) **N1105.1 Swimming pools.** Swimming pools shall be equipped with energy saving measures in accordance with Section 504.7 of the 2006 International Energy Conservation Code portion of the 2005 State Building Code.

CHAPTER 17 – COMBUSTION AIR

(Add) **M1703.6 Mechanical combustion air supply.** Mechanical combustion air supply systems shall comply with manufacturer's installation instructions for both the fuel-burning appliance and the combustion air supply system.

CHAPTER 24 – FUEL GAS

(Add) **G2411.1.1 Corrugated stainless steel tubing (CSST).** CSST gas piping shall be bonded in accordance with manufacturer's installation instructions.

(Amd) **G2415.1 Prohibited locations.** Piping shall not be installed in or through a circulating air duct, clothes chute, chimney or gas vent, ventilating duct, dumbwaiter or elevator shaft. Piping installed downstream of the point of delivery shall not extend through any

townhouse unit, including basements and underfloor spaces, other than the unit served by such piping.

CHAPTER 29 – WATER SUPPLY AND DISTRIBUTION

(Amd) **P2904.9.1.3 PVC plastic pipe.** A purple primer complying with ASTM F 656-96a shall be applied to all PVC solvent cemented joints. Solvent cement that is not purple in color for PVC plastic pipe conforming to ASTM D 2564-96a shall be applied to all joint surfaces.

CHAPTER 30 – SANITARY DRAINAGE

(Add) **P3006.3.6.1 PVC plastic pipe joints.** Joints in PVC plastic DWV piping shall comply with Section P2904.9.1.3 of this code.

CHAPTER 35 – SERVICES

(Add) **E3509.7.1 Corrugated stainless steel tubing (CSST).** CSST gas piping shall be bonded in accordance with manufacturer’s installation instructions.

CHAPTER 38 – POWER AND LIGHTING DISTRIBUTION

(Amd) **E3802.11 Bedroom outlets.** All branch circuits that supply 125-volt, single-phase, 15- and 20-ampere outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit.

CHAPTER 43 – REFERENCED STANDARDS

(Amd) ICC International Code Council
 4051 W. Flossmoor Rd.
 Country Club Hills, Il
 60478

Standard reference number	Title	Referenced in code section number
IBC—03	International Building Code	. . . . R110.2, R322.1, R323.1, R323.1.5, R403.1.8, R1001.8.2, G2402.3
ICC EC—03	ICC Electrical Code—Administrative Provisions	. . . . .R107.3, G2402.3
IEBC—03	International Existing Building Code	. . . . .R101.2, G2401.1
IECC—06	International Energy Conservation Code	. . . . . R104.11
IFC—03	International Fire Code	. . . . . R102.7, G2402.3, G2412.2,

			G2423.1
IFGC—03	International Fuel Gas Code	.....
		.R104.11, G2401.1	
IMC—03	International Mechanical Code	.....
		R104.11, M2106.1,	
		G2402.3	
IPC—03	International Plumbing Code	.....
		.R104.11, G2402.3	
IPSDC—03	International Private Sewage	.....
	Disposal Code	.. R323.1.6	
IPMC—03	International Property	.....
	Maintenance Code	.. R102.7	
SBCCI SSTD	Standard for Hurricane	.....
10-99	Resistant Construction	.....	R301.2.1.1

APPENDIX E - MANUFACTURED HOUSING USED AS DWELLINGS

(Add) **AE600.1 General.** The provisions of Sections AE601 through AE606, inclusive, are applicable only upon request of the building permit applicant with the approval of the local building official.

APPENDIX G – SWIMMING POOLS, SPAS AND HOT TUBS

(Add) **AG102.1.1 Definitions.** Amend the following definition to read as follows:

Residential. That which is situated on the premises of a detached one- or two-family dwelling or which is accessory to an individual one-family townhouse for the exclusive use of its residents and invited guests.

(Amd) **AG106.2 Suction fittings.** All pool and spa suction outlets shall be provided with a cover that conforms with ASME/ANSI A112.19.8M-2007 or an approved channel drain system.

Exception: Surface skimmers.

(Add) **AG106.2.1 Fitting maintenance.** Any pool, spa or hot tub with a broken, loose or missing suction outlet cover shall be immediately placed out of service until repairs are completed and approved.

(Amd) **AG106.3 Atmospheric vacuum relief system required.** All pool and spa single or multiple outlet circulation systems other than pools equipped only with surface skimmers shall be equipped with atmospheric vacuum relief. Such vacuum relief systems shall include at least one approved or engineered method of the type specified herein, as follows:

1. Safety vacuum release system conforming to ASME A112.19.17, or

- 2. An approved gravity drainage system operating through a surge tank.

(Amd) **AG106.4 Dual drain separation.** Single or multiple pump circulation systems shall be provided with a minimum of two (2) suction outlets of the approved type. A minimum horizontal or vertical distance of three (3) feet shall separate such outlets. The separation distance shall be measured from near point of opening to near point of opening. These suction outlets shall be piped so that water is drawn through them simultaneously, distributed as evenly as possible, through a vacuum relief protected line to the pump or pumps.

(Amd) **AG108.1 General.** Amend the following standard:

(Amd) ANSI/ASME A112.19.8 2007 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas and Hot TubsAG 106.2

AMENDMENTS TO THE 2005 NFPA 70 NATIONAL ELECTRICAL CODE

(Amd) **210.12 Arc-fault circuit-interrupter protection.**

(Amd) **(B) Dwelling unit bedrooms.** All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter, listed to provide protection of the entire branch circuit.

Exception: The location of the arc-fault circuit interrupter shall be permitted to be at other than the origination of the branch circuit in compliance with (a) and (b):

- (a) The arc-fault circuit interrupter installed within 6 feet of the branch circuit overcurrent device as measured along the branch circuit conductors.
- (b) The circuit conductors between the branch circuit overcurrent device and the arc-fault circuit interrupter shall be installed in a metal raceway or a cable with a metallic sheath.

(Add) **250.104 (B) (1) Corrugated stainless steel tubing (CSST).** CSST gas piping shall be bonded in accordance with manufacturer's installation instructions.

(Add) **300.4 (G) Cables and raceways installed under roof decking.** A cable- or raceway-type wiring method, installed in exposed or concealed locations under metal-corrugated sheet roof decking, shall be installed and supported so the nearest outside surface of the cable or raceway is not less than 1 ½ inch from the nearest surface of the roof decking.

Exception: Rigid metal conduit and intermediate metal conduit shall not be required to comply with 300.4(G).

(Amd) 422.16 (B) (2) Built-in dishwashers and trash compactors.

Built-in dishwashers and trash compactors shall be permitted to be cord-and-plug connected with a flexible cord identified as suitable for the purpose in the installation instructions of the appliance manufacturer where all of the following conditions are met.

(1) The flexible cord shall be terminated with a grounding-type attachment plug.

Exception: A listed dishwasher or trash compactor distinctly marked to identify it as protected by a system of double insulation, or its equivalent, shall not be required to be terminated with a grounding-type attachment plug.

(2) The length of the cord shall be (3 ft minimum to 4 ft maximum in length) measured from the face of the attachment plug to the plane of the rear of the appliance.

(3) Receptacles shall be located to avoid physical damage to the flexible cord.

(4) The receptacle shall be located in the space occupied by the appliance or adjacent thereto.

(5) The receptacle shall be readily accessible without removing the appliance.

(Amd) 680.26 Equipotential bonding.

(Amd) (C) Equipotential bonding grid. The parts specified in 680.26 (B) shall be connected to an equipotential bonding grid with a solid copper conductor, insulated, covered, or bare, not smaller than 8 AWG or rigid metal conduit or brass or other identified corrosion-resistant metal conduit. Connection shall be made by exothermic welding or by listed pressure connectors or clamps that are labeled as being suitable for the purpose and are of stainless steel, brass, copper, or copper alloy. The equipotential bonding grid shall conform to the contours of the pool and shall extend within or under paved walking surfaces for 3 feet horizontally beyond the inside walls of the pool and shall be permitted to be any of the following:

Exception: The equipotential bonding grid shall not be required to be installed under the bottom of or vertically along the walls of vinyl lined polymer wall, fiberglass composite or other pools constructed of nonconductive materials. Any metal parts of the pool, including metal structural supports, shall be bonded in accordance with 680.26 (B). For the purposes of this section, poured concrete, pneumatically applied (sprayed) concrete and concrete block, with painted or plastered coatings, shall be considered conductive material.

(1) **Structural Reinforcing Steel.** The structural reinforcing steel of a concrete pool or deck where the reinforcing rods are bonded together by the usual steel tie wires or the equivalent. Where deck reinforcing steel is not an integral part of the pool, the deck reinforcing steel shall be bonded

to other parts of the bonding grid using a minimum 8 AWG solid copper conductor. Connection shall be per 680.26 (D).

(2) Bolted or Welded Metal Pools. The wall of a bolted or welded metal pool.

(3) Alternate Means. This system shall be permitted to be constructed as specified in (a) through (c):

(a.) Materials and Connections. The grid shall be constructed of minimum 8 AWG bare solid copper conductors. Conductors shall be bonded to each other at all points of crossing. Connections shall be made as required by 680.26 (D).

(b.) Grid Structure. The equipotential bonding grid shall cover the contour of the pool and the pool deck extending 3 feet horizontally from the inside walls of the pool. The equipotential bonding grid shall be arranged in a 12 inch by 12 inch network of conductors in a uniformly spaced perpendicular grid pattern with tolerance of 4 inches.

(c.) Securing. The below-grade grid shall be secured within or under the pool and deck media.

700.8 Signs.

(Amd) **(A) Emergency sources.** A sign shall be placed at the service entrance equipment, at the meter location, and on any equipment up to the service entrance equipment indicating type and location of on-site emergency power sources.

Exception: A sign shall not be required for individual unit equipment as specified in 700.12(F).

701.9 Signs.

(Amd) **(A) Mandated standby.** A sign shall be placed at the service entrance, at the meter location, and on any equipment up to the service entrance equipment indicating type and location of on-site legally required standby power sources.

Exception: A sign shall not be required for individual unit equipment as specified in 701.11(G).

702.8 Signs.

(Amd) **(A) Standby.** A sign shall be placed at the service-entrance equipment, at the meter location, and on any equipment up to the service entrance equipment indicating type and location of on-site optional standby power sources. A sign shall not be required for individual unit equipment for standby illumination.

(Adopted effective December 31, 2005, amended August 1, 2009, October 6, 2011)

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Building Official Licensure

Secs. 29-262-1—29-262-11.

Repealed, November 25, 1992.

Secs. 29-262-1a—29-262-11a.

Repealed, March 27, 2003.

Sec. 29-262-1b. Classes of licensure

The classes of licensure are as follows:

- (1) Building official;
- (2) Assistant building official;
- (3) Residential building inspector;
- (4) Plan review technician;
- (5) Mechanical inspector;
- (6) Electrical inspector;
- (7) Plumbing inspector;
- (8) Heating and cooling inspector; and
- (9) Construction inspector.

(Adopted effective March 27, 2003)

Sec. 29-262-2b. Building official duties, minimum qualifications and continuing education requirement

(a) The duties and minimum qualifications of a building official are as set forth in section 29-261 of the Connecticut General Statutes.

(b) Each building official shall attend a minimum of ninety (90) hours of approved continuing education programs over consecutive three-year periods.

(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-3b. Provisional building official appointments

(a) The duties of a provisional building official are as set forth in subsection (a) of section 29-262 of the Connecticut General Statutes.

(b) The minimum qualifications that shall be demonstrated prior to appointment as a provisional building official are as follows:

(1) The appointee shall have had at least five years of experience in construction, design or supervision;

(2) The appointee shall be generally informed regarding the quality and strength of building materials;

(3) The appointee shall be generally informed regarding the accepted requirements of building construction;

(4) The appointee shall be generally informed regarding the accepted requirements of design and construction relating to accessibility to and use of buildings by the physically handicapped;

(5) The appointee shall be generally informed regarding good practice in fire prevention;

(6) The appointee shall be generally informed regarding the accepted requirements for light and ventilation;

(7) The appointee shall be generally informed regarding the accepted requirements for safe exit facilities and other items of equipment essential for the safety, comfort and convenience of occupants; and

(8) Prior to appointment, a candidate shall have filed an application for licensure as a building official with the state building inspector.

(c) Not later than ninety (90) days after appointment as a provisional building official, such provisional building official shall have passed the state test for licensure as a building official. In the event that a provisional building official does not become licensed as a building official within the ninety (90) days after appointment as a provisional building official, the provisional appointment shall lapse and the appointee shall be ineligible for reappointment as a provisional building official by the original appointing authority.

(Adopted effective March 27, 2003)

Sec. 29-262-4b. Assistant building official duties and minimum qualifications

(a) The duties and minimum qualifications of an assistant building official are as set forth in subsection (a) of section 29-261 of the Connecticut General Statutes.

(b) Each assistant building official shall attend a minimum of ninety (90) hours of approved continuing education programs over consecutive three-year periods.

(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-5b. Residential building inspector duties and minimum qualifications

(a) The residential building inspector performs the following duties under the direction of the building official or the assistant building official:

(1) Reviews, analyzes and evaluates preliminary and final construction plans of one-and two-family detached dwellings and one-family townhouses and their accessory structures for compliance with applicable codes adopted as a portion of the State Building Code, referenced standards and other related regulations prior to the issuance of building permits;

(2) Passes upon any question relative to the mode, manner of construction or materials to be used in the erection, repair, addition or alteration of one- and two-family detached dwellings and one-family townhouses and their accessory structures pursuant to the provisions of applicable codes adopted as a portion of the State Building Code and in accordance with regulations adopted by the Department of Public Safety;

(3) Requires compliance with applicable codes adopted as a portion of the State Building Code; with all regulations lawfully adopted thereunder; and with laws relating to the construction, repair, addition, alteration, removal, demolition, integral equipment, location, use, occupancy and maintenance of one-and two-family detached dwellings and one-family townhouses and their accessory structures, except as may otherwise be provided;

(4) Explains applicable codes and standards to contractors, architects, developers, engineers, property owners and other interested parties; and

(5) Enforces the correction of violations of applicable codes and standards at the scene of the installation by dealing directly with building owners, agents and contractors to achieve compliance with such codes, referenced standards and other related regulations.

(b) The minimum qualifications of a residential building inspector are as follows:

(1) Completion of high school, vocational school or the equivalent;

(2) Possession of least five (5) years of experience in the construction, design or supervision of the construction of one- and two-family detached dwellings and one-family townhouses;

(3) Be generally informed regarding the quality and strength of building materials, the accepted requirements of building construction, the accepted requirements for light and ventilation, the accepted requirements for safe exit facilities and other

items of equipment essential for the safety, comfort and convenience of occupants of one-and two-family detached dwellings and one-family townhouses and their accessory structures; and

(4) Demonstration of the following:

(A) Ability to read and interpret plans and specifications of one-and two-family detached dwellings and one-family townhouses and their accessory structures;

(B) Ability to recognize faulty construction and unsafe conditions in new and existing one- and two-family detached dwellings and one-family townhouses and their accessory structures; and

(C) Ability to express oneself clearly and concisely both orally and in writing.

(c) Each residential building inspector shall attend a minimum of sixty (60) hours of approved continuing education programs over consecutive three-year periods.

(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-6b. Plan review technician duties and minimum qualifications

(a) The plan review technician performs the following duties under the direction of the building official or the assistant building official:

(1) Reviews, analyzes and evaluates preliminary and final construction plans for compliance with all applicable codes, referenced standards and other related regulations prior to the issuance of building permits;

(2) Explains codes and standards to contractors, architects, developers, engineers, property owners and other interested parties;

(3) Provides assistance to inspectors for correct interpretation of plans and codes of a difficult and complex nature; and

(4) Prepares and maintains reports, records and correspondence relating to the review of plans.

(b) The minimum qualifications of a plan review technician are as follows:

(1) Completion of high school, vocational school or the equivalent;

(2) Possession of three (3) years of experience in the fields of building construction or code interpretation or enforcement; and

(3) Demonstration of the following:

(A) Thorough knowledge of applicable codes, referenced standards and other regulations;

(B) Ability to read and interpret plans and specifications;

(C) Knowledge of building construction materials and the principles, practices and methods of building design;

(D) Ability to examine and make recommendations on plans submitted for approval; and

(E) Ability to express oneself clearly and concisely, both orally and in writing.

(c) Each plan review technician shall attend a minimum of ninety (90) hours of approved continuing education programs over consecutive three-year periods.

(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-7b. Mechanical inspector duties and minimum qualifications

(a) The mechanical inspector performs the following duties under the direction of the building official or the assistant building official:

(1) Examines plumbing, heating, refrigeration, ventilation and air conditioning construction documents;

(2) Inspects installations; and

(3) Enforces correction of violations of plumbing and heating codes at the scene of the installation by dealing directly with building owners, agents and contractors

to assure compliance with applicable codes, referenced standards and other related regulations.

(b) The minimum qualifications of a mechanical inspector are as follows:

(1) Completion of high school, vocational school or the equivalent;

(2) Possession of either a valid P-1 "Unlimited Contractor" or P-2 "Unlimited Journeyman" license and either a valid S-1 "Unlimited Contractor" or S-2 "Unlimited Journeyman" license;

(3) Maintenance or improvement of the applicable trade license issued pursuant to Chapter 390 of the Connecticut General Statutes during his or her tenure in the position; and

(4) Demonstration of the following:

(A) Thorough knowledge of materials and methods used in the installation of plumbing, heating, air conditioning and refrigeration installations;

(B) Thorough knowledge of the applicable plumbing and mechanical codes, referenced standards and other regulations;

(C) Ability to read and interpret plans and specifications;

(D) Ability to diagnose violations, hazards, and unsafe or unsanitary conditions caused by faulty materials or poor workmanship in new or existing mechanical installations; and

(E) Ability to express oneself clearly and concisely, both orally and in writing.

(c) Each mechanical inspector shall attend a minimum of thirty (30) hours of approved continuing education programs over consecutive three-year periods.

(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-8b. Electrical inspector duties and minimum qualifications

(a) The electrical inspector performs the following duties under the direction of the building official or assistant building official:

(1) Examines electrical and telecommunications construction documents;

(2) Inspects installations; and

(3) Enforces the correction of violations of the electrical codes at the scene of the installation by dealing directly with building owners, agents, and contractors, to assure compliance with applicable codes, referenced standards and other related regulations.

(b) The minimum qualifications of the electrical inspector are as follows:

(1) Completion of high school, vocational school or the equivalent;

(2) Possession of a valid E-1 "Unlimited Contractor" license or an E-2 "Unlimited Journeyman" license for not less than two (2) years;

(3) Maintenance or improvement of the trade license issued pursuant to Chapter 390 of the Connecticut General Statutes during his or her tenure in the position; and

(4) Demonstration of the following:

(A) Thorough knowledge of the methods, materials and techniques of the electrical trade;

(B) Thorough knowledge of applicable codes, referenced standards and other related regulations;

(C) Ability to diagnose violations, unsafe conditions and hazards in new and existing electrical installations;

(D) Ability to read and interpret plans and specifications; and

(E) Ability to express oneself clearly and concisely, both orally and in writing.

(c) Each electrical inspector shall attend a minimum of thirty (30) hours of approved continuing education programs over consecutive three-year periods.

(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-9b. Plumbing inspector duties and minimum qualifications

(a) The plumbing inspector performs the following duties under the direction of the building official or assistant building official:

(1) Examines plumbing, piping and fire suppression system construction documents;

(2) Inspects installations; and

(3) Enforces the correction of violations at the scene of the installation, by dealing directly with building owners, agents and contractors to assure compliance with applicable codes, referenced standards and other related regulations.

(b) The minimum qualifications of a plumbing inspector are as follows:

(1) Completion of high school, vocational school or the equivalent;

(2) Possession of a valid P-1 "Unlimited Contractor" license or a P-2 "Unlimited Journeyman" license for a minimum of two (2) years;

(3) Maintenance or improvement of the applicable trade license issued pursuant to Chapter 390 of the Connecticut General Statutes during his or her tenure in the position; and

(4) Demonstration of the following:

(A) Thorough knowledge of applicable codes, referenced standards and other related regulations;

(B) Thorough knowledge of methods, materials and techniques of plumbing installations;

(C) Ability to diagnose plumbing code violations, hazards, unsafe conditions and unsanitary conditions in new and existing plumbing installations;

(D) Ability to read and interpret plans and specifications; and

(E) Ability to express oneself clearly and concisely, both orally and in writing.

(c) Each plumbing inspector shall attend a minimum of thirty (30) hours of approved continuing education programs over consecutive three-year periods.

(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-10b. Heating and cooling inspector duties and minimum qualifications

(a) The heating and cooling inspector performs the following duties under the direction of the building official or the assistant building official:

(1) Examines heating, refrigeration, ventilation and air conditioning construction documents;

(2) Inspects installations; and

(3) Enforces the correction of violations of the heating codes at the scene of the installation by dealing directly with building owners, agents and contractors to assure compliance with applicable codes, referenced standards and other related regulations.

(b) The minimum qualifications of a heating and cooling inspector are as follows:

(1) Completion of high school, vocational school or the equivalent;

(2) Possession of a valid S-1 "Unlimited Contractor" license or an S-2 "Unlimited Journeyman" license for a minimum of two (2) years;

(3) Maintenance or improvement of the applicable trade license issued pursuant to Chapter 390 of the Connecticut General Statutes during his or her tenure in the position; and

(4) Demonstration of the following:

(A) Thorough knowledge of applicable codes, referenced standards and other related regulations;

- (B) Thorough knowledge of the methods and materials used in the installation of heating, refrigeration, ventilation and air conditioning systems;
 - (C) Knowledge of steam fitting;
 - (D) Ability to read and interpret plans and specifications;
 - (E) Ability to diagnose violations, unsafe conditions, and hazards in new and existing heating and cooling installations; and
 - (F) Ability to express oneself clearly and concisely, both orally and in writing.
- (c) Each heating and cooling inspector shall attend a minimum of thirty (30) hours of approved continuing education programs over consecutive three-year periods.
(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-11b. Construction inspector duties and minimum qualifications

- (a) The construction inspector performs the following duties under the direction of the building official or the assistant building official:
- (1) Examines documents of building construction, alteration or repair
 - (2) Inspects installations for compliance with applicable code requirements to ensure the safety of the occupants;
 - (3) Investigates for compliance with structural safety requirements; and
 - (4) Recommends to the building official corrective actions associated with the enforcement of unsafe conditions in new and existing installations, where warranted.
- (b) The minimum qualifications of a construction inspector are as follows:
- (1) Completion of high school, vocational school or the equivalent;
 - (2) Possession of three (3) years of experience in building construction; and
 - (3) Demonstration of the following:
 - (A) Thorough knowledge of the materials, methods and techniques used in building construction;
 - (B) Thorough knowledge of applicable codes, referenced standards and other related regulations;
 - (C) Ability to read and interpret plans and specifications;
 - (D) Ability to recognize faulty construction or hazardous and unsafe conditions in new and existing installations; and
 - (E) Ability to express oneself clearly and concisely, both orally and in writing.
- (c) Each construction inspector shall attend a minimum of thirty (30) hours of approved continuing education programs over consecutive three-year periods.
(Adopted effective March 27, 2003; amended July 1, 2005)

Sec. 29-262-12b. System of control and reporting re continuing educational programs

- (a) Members of each class of licensure subject to the continuing educational requirements specified in sections 29-262-2b and 29-262-4b to 29-262-11b, inclusive, of the Regulations of Connecticut State Agencies shall submit proof of successful completion of each such continuing educational program attended to the Office of Education & Data Management (OEDM) within the Department of Public Safety, or successor office.
- (b) Individuals subject to the provisions of subsection (a) of this section shall submit proof of successful completion of each such continuing educational program attended to OEDM or its successor not later than ninety (90) days after successful completion of the continuing educational program, unless the individual's three-year training cycle expires during the 90-day period. In such case, proof of successful completion shall be submitted before such training cycle expires.

(c) Such proof of successful completion of a continuing educational program shall be submitted on an application form prescribed by OEDM or its successor. Applicants shall submit such documentation as OEDM or its successor may require including, but not limited to, a certificate of completion or transcript.

(Adopted effective July 1, 2005)

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Standards for Testing of Construction Materials

Sec. 29-276b-1. Standards and methods for the testing of construction materials and structural members or assemblies

(a) Any person, firm or corporation licensed under the provisions of Chapter 391 engaged in the testing of construction materials and structural members or assemblies shall utilize standards and methods for testing which conform with standards and test methods approved by the American Society for Testing and Materials, the American National Standards Institute, or any other nationally recognized accreditation program for the testing and certification of construction materials and structural members or assemblies.

(b) If any modification of standards and test methods is necessary to render such standards and test methods appropriate for local use, the professional engineer who shall certify such tests shall describe such modification with specificity in each test report.

(Effective January 3, 1992)

Sec. 29-276b-2. Criteria for laboratory facilities for the testing of construction materials and structural members or assemblies

(a) Each laboratory operated by any person, firm or corporation licensed under the provisions of Chapter 391 where the testing of construction materials and structural members or assemblies is conducted shall be under the supervisory control of a qualified professional engineer licensed in accordance with the provisions of Chapter 391 of the Connecticut General Statutes.

(b) Each laboratory operated by any person, firm or corporation licensed under the provisions of Chapter 391 where the testing of construction materials and structural members or assemblies is conducted shall utilize facilities, equipment and procedures which meet standards and methods for testing approved by the American Society for Testing and Materials, the American National Standards Institute, or any other nationally recognized accreditation program for the testing of construction materials and structural members or assemblies.

(c) The facilities of and the equipment utilized in each laboratory operated by any person, firm or corporation licensed under the provisions of Chapter 391 where the testing of construction materials and structural members or assemblies is conducted shall be inspected annually by the supervising professional engineer who shall determine that the condition of both the facilities and the equipment is in conformance with the requirements of the applicable standards and that the equipment is in calibration. The supervising professional engineer shall maintain records of the results of these inspections and shall provide the records to the Board of Examiners for Professional Engineers and Land Surveyors of the Department of Consumer Protection upon the Board's request.

(Effective January 3, 1992)

Sec. 29-276b-3. Qualifications for persons performing testing of construction materials and structural members or assemblies

(a) Each professional engineer licensed in accordance with the provisions of Chapter 391 who has been designated to supervise the testing of construction materials and structural members or assemblies for a testing laboratory operated by any person, firm or corporation licensed under the provisions of Chapter 391 shall be qualified for each separate area of inspection and testing of such materials and members or assemblies either by having successfully completed at least one course

at an accredited institute of higher education or an accredited training seminar in the specific subject matter of that testing procedure or by having performed testing of construction materials and structural members or assemblies in a testing laboratory for at least three years.

(b) The supervising professional engineer for a laboratory facility operated by any person, firm or corporation licensed under the provisions of Chapter 391 shall be responsible for the instruction of the technicians performing tests in the laboratory as needed and shall provide for the evaluation of the performance of each technician performing tests in the laboratory on an annual basis. The supervising professional engineer shall maintain records of the results of these evaluations and shall provide the records to the Board of Examiners for Professional Engineers and Land Surveyors of the Department of Consumer Protection upon the Board's request.

(Effective January 3, 1992)

Sec. 29-276b-4. Conformance with the national voluntary laboratory accreditation program

(a) The supervising professional engineer for a testing laboratory operated by any person, firm or corporation licensed under the provisions of Chapter 391 shall certify when applicable that the laboratory facility, its standards, its equipment, its test methods and the qualifications of laboratory testing personnel conform to the standards, criteria and qualifications required in Sections 29-276b-1, 29-276b-2 and 29-276b-3 of these regulations; but such laboratory's facilities, standards, equipment, test methods and personnel qualifications shall conform at a minimum to the standards, criteria and qualifications required by the National Voluntary Laboratory Accreditation Program of the National Institute of Standards and Technology.

(b) A testing laboratory operated by any person, firm or corporation licensed under the provisions of Chapter 391 need not obtain accreditation with the National Voluntary Laboratory Accreditation Program, although such laboratory may use its accreditation for performing given tests as a basis for certifying that the laboratory may conduct those tests.

(c) If its supervising professional engineer determines that a testing laboratory operated by any person, firm or corporation licensed under the provisions of Chapter 391 does not meet the requirements set forth in Sections 29-276b-1 through 29-276b-4 (a), inclusive, of these regulations, the engineer shall forthwith report the deficiencies which he has found to the Board of Examiners for Professional Engineers and Land Surveyors of the Department of Consumer Protection.

(Effective January 3, 1992)

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Connecticut State Fire Prevention Code

Sec. 29-291a-1. The Connecticut State Fire Prevention Code: title and administration

(a) The Regulations of the Department of Public Safety, sections 29-291a-1 to 29-291a-10, inclusive, of the Regulations of Connecticut State Agencies and their adopted standards, shall be known as the Connecticut State Fire Prevention Code, hereinafter referred to as “the code” or “this code”.

(1) Severability. If a section, subsection, sentence, clause or phrase of this code is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code.

(2) Validity. In the event any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions hereof, which are determined to be legal; and it shall be presumed that this code would have been adopted without such illegal or invalid parts or provisions.

(b) Sections 29-291a-1 to 29-291a-10, inclusive, of the Regulations of Connecticut State Agencies shall be administered as provided in Chapter 541 of the Connecticut General Statutes.

(c) The provisions of sections 29-291a-1a to 29-291a-10a, inclusive, of the Regulations of Connecticut State Agencies shall not apply any federal agency performing construction or operating on federally-owned land or on leased land totally under the control of the federal government.

(d) The provisions of sections 29-291a-1a to 29-291a-10a, inclusive, of the Regulations of Connecticut State Agencies shall not apply to detached one- and two-family dwellings nor to multiple single-family dwellings attached side-by-side (townhouse) not more than three stories in height with each dwelling having a separate means of egress.

(Adopted effective July 1, 2010)

Sec. 29-291a-2. Relationship to State Fire Safety and Building Codes

(a) The requirements of the Connecticut State Fire Prevention Code shall not supersede the requirements of either the Connecticut State Fire Safety Code (CSFSC) or the State Building Code (SBC).

(b) Where any provision of this code conflicts with or duplicates any provision of either the CSFSC or SBC, the CSFSC or the SBC shall prevail.

(c) Where the CSFSC or SBC do not address an issue or have deleted a provision, the provisions of this code shall apply.

(d) No person shall remove or modify any fire protection system installed or maintained under the provisions of the CSFSC or the SBC, unless otherwise permitted by those codes. Buildings and structures, and parts thereof, shall be maintained in a safe condition. Devices or safeguards which are required by the CSFSC or the SBC shall be maintained in conformance with the code edition under which installed.

(Adopted effective July 1, 2010)

Sec. 29-291a-3. Scope of this code

(a) The scope includes, but is not limited to, the following:

(1) Inspections of permanent and temporary buildings, processes, equipment, systems and other fire and related life safety situations.

(2) Review of design and construction plans, drawings, and specifications for life safety systems, fire protection systems, access, water supplies, processes, and hazardous materials and other fire and life safety issues.

(3) Fire and life safety education of fire brigades, employees, responsible parties and the general public.

(4) Existing occupancies and conditions.

(5) Access requirements for fire department operations.

(6) Hazards from outside fires in vegetation, trash, building debris and other materials.

(7) Regulation and control of special events including, but not limited to, assemblage of people, exhibits, trade shows, amusement parks, haunted houses, outdoor events and other similar special temporary and permanent occupancies.

(8) Interior finish, decorations, furnishings, and other combustibles that contribute to fire spread, fire load and smoke production.

(9) Storage, use, processing, handling, and on-site transportation of flammable and combustible gases, liquids and solids.

(10) Storage, use, processing, handling and on-site transportation of hazardous materials.

(11) Conditions affecting fire fighter safety.

(b) **Provisions in excess of code requirements.** Nothing in this code shall be construed to prohibit a better type of building construction, an additional means of egress, or an otherwise safer condition than that specified by the minimum requirements of this code.

(Adopted effective July 1, 2010)

Sec. 29-291a-4. Authority having jurisdiction

(a) For the purposes of the regulations adopted by reference under section 29-291a of the Connecticut General Statutes, the authority having jurisdiction or AHJ shall mean the State Fire Marshal regarding the proper administration, application, interpretation and modification of the requirements contained within sections 29-291a-1 to 29-291a-10, inclusive, of the Regulations of Connecticut State Agencies.

(b) The local fire marshal shall make the initial determination concerning compliance with sections 29-291a-1 to 29-291a-10, inclusive, of the Regulations of Connecticut State Agencies, except as expressly provided in the wording of a section or in subsection (c) or (d) of this section. Upon request, the initial determination of a local fire marshal may be reviewed by the State Fire Marshal.

(c) The State Fire Marshal shall make the determination concerning compliance with sections 29-291a-1 to 29-291a-10, inclusive, of the Regulations of Connecticut State Agencies on state-owned property.

(d) A decision of the local fire marshal may be reviewed by the State Fire Marshal in accordance with section 29-291d of the Connecticut General Statutes.

(Adopted effective July 1, 2010)

Sec. 29-291a-5. Variations or exemptions

(a) In accordance with section 29-291b of the Connecticut General Statutes, the State Fire Marshal may modify the requirements of sections 29-291a-1 to 29-291a-10, inclusive, of the Regulations of Connecticut State Agencies and their adopted standards.

(b) Buildings, facilities or properties with equivalencies, alternatives or modifications approved by the State Fire Marshal shall be considered as conforming with this code.

(Adopted effective July 1, 2010)

Sec. 29-291a-6. Abatement of hazards; penalty

(a) Hazardous conditions contrary to the provisions of this code shall be ordered remedied in accordance with section 29-291c of the Connecticut General Statutes by the local fire marshal or State Fire Marshal for their respective jurisdictions. An order to vacate all or part of a building may be issued by a local fire marshal or local police officer when severe hazardous conditions exist in accordance with section 29-306 of the Connecticut General Statutes. The penalty for the failure to abate such hazards shall be as described in sections 29-291c and 29-295 of the Connecticut General Statutes as appropriate.

(b) Pursuant to section 29-291c of the Connecticut General Statutes, section 29-291a-10 of the Regulations of Connecticut State Agencies lists those sections of this code for which a citation may be issued.

(Adopted effective July 1, 2010)

Sec. 29-291a-7. Inspections, plan submittals

(a) Each local fire marshal, the State Fire Marshal and their respective designees shall conduct inspections as prescribed in section 29-305 of the Connecticut General Statutes of buildings and facilities regulated by sections 29-291a-1 to 29-291a-10, inclusive, of the Regulations of Connecticut State Agencies within their jurisdictions.

(b) The minimum requirements for the frequency of inspections as prescribed in section 29-305 of the Connecticut General Statutes shall be as follows:

(1) Annual inspections for the occupancy classifications: all R Residential, A-1, A-2, E, H-1 and I-1.

(2) Inspections every two years for the occupancy classifications: A-3, H-2, I-2, I-3, I-4, B-Medical and B-College.

(3) Inspections every three years for occupancy classifications: B, H-3, M, S-1, A-4 and A-5.

(4) Inspections every four years for the occupancy classifications: F-1, F-2, H-4, H-5, S-2 and U.

(c) Each local fire marshal, the State Fire Marshal and their respective designees may conduct inspections as often as may be necessary during the construction of new buildings, structures or additions, and during the course of renovations, alterations or modernizations for the purpose of satisfying themselves that all work is in accordance with the approved plans and specifications, and this code.

(d) Detailed plans and specifications for new structures and additions, renovations or alterations to existing structures shall be submitted by the applicant to the local fire marshal having jurisdiction to demonstrate compliance with section 29-263 of the Connecticut General Statutes. The municipality or fire district may, by ordinance, establish a fee for construction document review. This schedule of fees shall be posted for public view.

(Adopted effective July 1, 2010)

Sec. 29-291a-8. Adopted standard

The following standard promulgated by the National Fire Protection Association (NFPA) is hereby adopted as part of sections 29-291a-1 to 29-291a-10, inclusive, of the Regulations of Connecticut State Agencies:

Uniform Fire Code™ of the National Fire Protection Association, Standard 1 (NFPA 1), 2003 edition, with relevant appendices, except as amended, altered or deleted and by the addition of certain provisions as indicated in section 29-291a-9 of the Regulations of Connecticut State Agencies.

This standard is available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269; telephone 1-800-344-3555.
(Adopted effective July 1, 2010)

Sec. 29-291a-9. Connecticut amendments

The adopted National Fire Protection Association standard NFPA 1 is amended to meet the needs of the State of Connecticut as follows:

Note:

A section or subsection in the Connecticut Amendments preceded by “Amd” indicates the substitution of this provision in the adopted referenced standard, National Fire Protection Association Standard 1, Uniform Fire Code™, 2003 edition.

A section or subsection in the Connecticut Amendments preceded by “Del” indicates the deletion of this provision in the adopted referenced standard.

A section or subsection in the Connecticut Amendments preceded by “Add” indicates the addition of this provision in the adopted referenced standard.

A section or subsection in the Connecticut Amendments followed by an asterisk “” indicates that explanatory material on the section or subsection can be found in Appendix A of the adopted referenced standard.*

Chapter 1

Administration

(Del) **1.1.1** Delete section.

(Del) **1.1.2 Title.** Delete section.

(Add) **1.3.3.3** References to the NFPA 101®, Life Safety Code®, within the body of the model document shall be considered references to the CSFSC.

(Amd) **1.3.5 Vehicles and Vessels.** Vehicles, vessels or other similar conveyances when in fixed locations and occupied as buildings, as described in the CSFSC, shall be treated as buildings and comply with this code.

(Amd) **1.3.8** Repairs, renovations, alterations, reconstruction, change of occupancy and additions to buildings shall conform to the CSFSC and the SBC.

(Del) **1.4.2 Alternatives.** Delete section.

(Del) **1.4.3 Modifications.** Delete section.

(Del) **1.4.4** Delete section.

(Del) **1.6 Enforcement.** Delete section.

(Del) **1.7.2 Interpretations.** Delete section.

(Amd) **1.7.3 Enforcement Assistance.** The State Fire Marshal or local fire marshal may accept reports of the building official concerning a code compliance review or inspection in lieu of conducting the review or inspection himself or herself.

(Del) **1.7.5 Inspections.** Delete section.

(Del) **1.7.6** Delete section.

(Del) **1.7.7 Interference with Enforcement.** Delete section.

(Del) **1.7.8 Impersonation.** Delete section.

(Del) **1.7.9 Investigation.** Delete section.

(Del) **1.7.10 Plans and Specification.** Delete section.

(Del) **1.8 Duties and Powers of the Incident Commander.** Delete section.

(Del) **1.10 Board of Appeals.** Delete section.

(Del) **1.11.3 Emergency Response Records.** Delete section.

(Amd) **1.12.1** The AHJ shall be responsible for issuing permits, certificates, notices, approvals or orders pertaining to fire control and fire hazards pursuant to section 1.12.

(Amd) **1.12.2.1** Applications for permits shall be accompanied by such data as required by the AHJ and fees as prescribed by law.

(Amd) **1.12.19** Permits as prescribed by law shall be in accordance with Table 1.12.19(a).

(Amd) **Table 1.12.19(a) Permit Requirements**

Table 1.12.19(a) Permit Requirements		
Operations and Materials	Permit Required	Cross Reference Section No.
Aircraft Hangars	For servicing or repairing aircraft	21.1.1
Airport Terminal Buildings	For operation	21.2.2.1
Ambulatory Health Care occupancy	To operate a ambulatory health care occupancy	20.6.1.1
Ammonium Nitrate	For storage	65.10.2
Apartment Buildings and Dormitories	To operate an apartment building or dormitory	20.9.1.1
Automobile Wrecking Yards	To operate automobile wrecking yards	22.2
Battery System	To operate stationary lead-acid battery systems having an electrolyte capacity of more than 100 gal (379 L) in sprinklered buildings or 50 gal (189 L) in nonsprinklered buildings	52.2
Business occupancies	To operate a business occupancy	20.13.1.1

Candles, Open Flames, and Portable Cooking	To use in connection with assembly areas, dining areas of restaurants or drinking establishments	17.3.4.6.1 20.1.4.1.4.1
Fairs – No rides	To conduct the events	10.16.1
Cellulose Nitrate Film	For storage, handling or use	20.15.6.1
Cleanrooms	For operation	23.3
Combustible Material Storage	To store more than 2500 ft ³ (70.8 m ³) gross volume	19.1.1 20.15.4.2
Commercial Rubbish-Handling Operation	To operate	19.1.1
Consumer Fireworks (1.4G)	For the sale, on-site handling, manufacture and storage of consumer fireworks (1.4G)	65.5.2 65.11.3.1
Cutting and Welding Operation	For operations within a jurisdiction	17.3.4.6.1 41.1.5 41.3.1.2 41.3.3.1
Day-care occupancies	To operate a day-care occupancy	20.3.1.1
Drycleaning Plants	To engage in business of drycleaning or to change to a more hazardous cleaning solvent	24.2
Dust-Producing Operations	To operate a grain elevator, flour mill, starch mill, feed mill, or plant pulverizing aluminum, coal, cocoa, magnesium, spices or sugar, etc.	40.2
Educational occupancy	To operate an educational occupancy	20.2.1.1
Exhibit and Trade Shows	For operation of all exhibits and trade shows held within a jurisdiction	20.1.4.4.1
Fire Hydrants and Water-Control Valves	To use a fire hydrant or operate a water-control valve intended for fire suppression purposes on private property	13.1.1.1
Flame Effects	Use of flame effects before an audience	65.4.2
Health Care facility	To operate a health care occupancy	20.4.1.1

High-Piled Combustible Storage	To use any building or portion thereof as a high-piled storage area exceeding 500 ft ² (46.45 m ²)	20.15.7.1.1
Hot Work Operations	For hot work. For additional permit requirements for hot work operations, see 41.1.5	17.3.4.6.1 41.1.5 41.3.3.1
Hotels and Bed and Breakfast Establishment	To operate a hotel, motel or bed and breakfast establishment	20.8.1.1
Industrial occupancies	To operate an industrial occupancy	20.14.1.1
Industrial Ovens and Furnaces	For operation of industrial ovens and furnaces covered by Chapter 51	51.1.2.1
Liquid- or Gas-Fueled Vehicles	To display, compete, or demonstrate liquid- or gas-fueled vehicles or equipment in assembly buildings	20.1.4.4.1
Lumberyards and Woodworking Plants	For storage of lumber exceeding 100,000 board ft	31.2
Membrane Structures, Tents, and Canopies — Permanent	For construction, location, erection, or placement	25.1.2
Membrane Structures, Tents, and Canopies — Temporary	To operate an air-supported temporary membrane structure or tent having an area in excess of 200 ft ² (18.6 m ²) or a canopy in excess of 400 ft ² (37.2 m ²). <i>Exception: Temporary membrane structures, tents, or canopy structures used exclusively for camping</i>	25.1.2
Mercantile occupancies	To operate a mercantile occupancy	20.12.1.1
Organic Coatings	For operation and maintenance of a facility that manufactures organic coatings	43.1.1.4
Parade Floats	To use a parade float for public performance, presentation, spectacle, entertainment or parade	10.18.1

Places of Assembly, including Special Amusement Buildings	To operate a place of assembly	10.16.1 20.1.1
Pyrotechnics Before a Proximate Audience	For the display and use of pyrotechnic materials before a proximate audience	65.3.3
Refrigeration Equipment	To operate a mechanical refrigeration unit or system	53.4.1
Repair Garages and Service Stations	For operation of service stations and repair garages	30.1.1.3 30.2.1.1
Residential Board and Care occupancies	To operate a residential board and care occupancy	20.5.1.1
Rocketry Manufacturing	For the manufacturing of model rocket motors	65.7.2
Rooftop Heliports	For operation of a rooftop heliport	21.3.2.1
Special Outdoor Events, Carnivals, and Fairs	For the location and operation of special outdoor events, carnivals and fairs	10.16.1
Special Structures and High-Rise Buildings	To operate special structures and high-rise buildings	20.16.1.1.1
Storage occupancies	To operate a storage occupancy	20.15.1.1
Tar Kettles	For placement of a tar kettle, placement shall be obtained prior to the placement of a tar kettle	16.7.1.2 17.3.4.6.1
Tire-Rebuilding Plants	For operation and maintenance of a tire-rebuilding plant	20.15.4.2
Tire Storage	To use an open area or portion thereof to store tires in excess of 1000 ft ³ (28.3 m ³)	20.15.4.2
Torch-Applied Roofing Operation	For the use of a torch for application of roofing materials	16.6.1
Wildland Fire-Prone Areas	For use of hazardous areas within fire-prone areas.	17.3.2
Wood Products	To store chips, hogged material, lumber or plywood in excess of 200 ft ³ (5.7 m ³)	31.2

(Del) **1.13 Licenses.** Delete section.

(Del) **1.14.1*** Delete section.

(Del) **1.14.3** Delete section.

(Del) **1.15* Technical Assistance.** Delete section.

(Del) **1.16.4** Delete section.

Chapter 2

Referenced Publications

(Amd) **2.1 General.** The documents or portions thereof listed in this chapter are referenced within this code and shall be considered part of the requirements of this document to the extent called for by this code.

(Add) **2.1.1** The Connecticut State Fire Prevention Code (CSFPC) recognizes that it is sometimes impractical to continually upgrade existing buildings or installations to comply with all the requirements of the following referenced publications. Existing buildings or installations that do not comply with the provisions of the following referenced publications shall be permitted to be continued in service, provided the lack of conformity with these standards does not present a serious hazard to occupants as determined by the authority having jurisdiction.

(Amd) **2.2 NFPA Publications.** National Fire Protection Association. 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101

<i>Standard reference number</i>	<i>Title</i>
NFPA 10	Standard for Portable Fire Extinguishers, 2002 edition
NFPA 11	Standard for Low-, Medium-, and High-Expansion Foam, 2002 edition
NFPA 11A	Standard for Medium- and High-Expansion Foam Systems, 2002 edition
NFPA 12	Standard on Carbon Dioxide Extinguishing Systems, 2000 edition
NFPA 12A	Standard on Halon 1301 Fire Extinguishing Systems, 2004 edition
NFPA 13	Standard for the Installation of Sprinkler Systems, 2002 edition
NFPA 13D	Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, 2002 edition
NFPA 13R	Standard for the Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height, 2002 edition

NFPA 14	Standard for the Installation of Standpipe and Hose Systems, 2003 edition
NFPA 15	Standard for Water Spray Fixed Systems for Fire Protection, 2001 edition
NFPA 16	Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems, 2003 edition
NFPA 17	Standard for Dry Chemical Extinguishing Systems, 2002 edition
NFPA 17A	Standard for Wet Chemical Extinguishing Systems, 2002 edition
NFPA 20	Standard for the Installation of Stationary Pumps for Fire Protection, 1999 edition
NFPA 22	Standard for Water Tanks for Private Fire Protection, 2003 edition
NFPA 24	Standard for the Installation of Private Fire Service Mains and Their Appurtenances, 2002 edition
NFPA 25	Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2002 edition
NFPA 30	Flammable and Combustible Liquids Code - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code
NFPA 30A	Code for Motor Fuel Dispensing Facilities and Repair Garages - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code

NFPA 30B	Code for the Manufacture and Storage of Aerosol Products - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code
NFPA 31	Standard for the Installation of Oil-Burning Equipment - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-317 of the Connecticut General Statutes, known as the Connecticut Oil-Burning Equipment Code
NFPA 32	Standard for Drycleaning Plants, 2004 edition
NFPA 33	Standard for Spray Application Using Flammable or Combustible Liquids, 2000 edition
NFPA 34	Standard for Dipping and Coating Processes Using Flammable or Combustible Liquids - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code
NFPA 35	Standard for the Manufacture of Organic Coatings - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code
NFPA 36	Standard for Solvent Extraction Plants, 2001 editions
NFPA 37	Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code

NFPA 40	Standard for the Storage and Handling of Cellulose Nitrate Motion Picture Film, 2001 edition
NFPA 45	Standard on Fire Protection for Laboratories Using Chemicals - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-337 of the Connecticut General Statutes, known as the Connecticut Hazardous Chemicals Code
NFPA 50	Standard for Bulk Oxygen Systems at Consumer Sites - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-337 of the Connecticut General Statutes, known as the Connecticut Hazardous Chemicals Code
NFPA 50B	Standard for Liquefied Hydrogen Systems at Consumer Sites - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-337 of the Connecticut General Statutes, known as the Connecticut Hazardous Chemicals Code
NFPA 51	Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Process - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-337 of the Connecticut General Statutes, known as the Connecticut Hazardous Chemicals Code
NFPA 51A	Standard for Acetylene Cylinder Charging Plants, 2001 edition
NFPA 51B	Standard for Fire Prevention During Welding, Cutting, and Other Hot Work - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-337 of the Connecticut General Statutes, known as the Connecticut Hazardous Chemicals Code

NFPA 52	Compressed Natural Gas (CNG) Vehicular Fuel Systems Code - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-329 of the Connecticut General Statutes, known as the Connecticut Gas Equipment and Piping Code
NFPA 54	National Fuel Gas Code - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-329 of the Connecticut General Statutes, known as the Connecticut Gas Equipment and Piping Code
NFPA 55	Standard for the Storage, Use, and Handling of Compressed Gases and Cryogenic Fluids in Portable and Stationary Containers, Cylinders, and Tanks - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-337 of the Connecticut General Statutes, known as the Connecticut Hazardous Chemicals Code
NFPA 57	Liquefied Natural Gas (LNG) Vehicular Fuel Systems Code - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-329 of the Connecticut General Statutes, known as the Connecticut Gas Equipment and Piping Code
NFPA 58	Standard for the Storage and Handling of Liquefied Petroleum Gases - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-331 of the Connecticut General Statutes, known as the Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code
NFPA 59	Utility LP-Gas Plant Code, 2001 edition
NFPA 59A	Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG), 2001 edition

NFPA 61	Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities, 2002 edition
NFPA 69	Standard on Explosion Prevention Systems, 2002 edition
NFPA 70	National Electrical Code®, 2005 edition, as amended by the State Building Code
NFPA 72®	National Fire Alarm Code®, 2002 edition
NFPA 80	Standard for Fire Doors and Fire Windows, 1999 edition
NFPA 82	Standard on Incinerators and Waste and Linen Handling Systems and Equipment, 1999 edition
NFPA 85	Boiler and Combustion Systems Hazards Code, 2004 edition
NFPA 86	Standard for Ovens and Furnaces, 1999 edition
NFPA 86C	Standard for Industrial Furnaces Using a Special Processing Atmosphere, 1999 edition
NFPA 86D	Standard for Industrial Furnaces Using Vacuum as an Atmosphere, 1999 edition
NFPA 88A	Standard for Parking Structures, 2002 edition
NFPA 90A	Standard for the Installation of Air Conditioning and Ventilating Systems, 2002 edition
NFPA 90B	Standard for the Installation of Warm Air Heating and Air Conditioning Systems, 2002 edition
NFPA 91	Standard for Exhaust Systems for Air Conveying of Materials, 1999 edition
NFPA 96	Standard on Ventilation Control and Fire Protection of Commercial Cooking Operations, 2001 edition

NFPA 99	Standard for Health Care Facilities - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-337 of the Connecticut General Statutes, known as the Connecticut Hazardous Chemicals Code
NFPA 101®	Life Safety Code® – See the Regulations of Connecticut State Agencies adopted under the authority of section 29-292 of the Connecticut General Statutes, known as the Connecticut State Fire Safety Code
NFPA 102	Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures, 1995 edition
NFPA 110	Standard for Emergency and Standby Power Systems, 2002 edition
NFPA 111	Standard on Stored Electrical Energy Emergency and Standby Power Systems, 2001 edition
NFPA 120	Standard for Coal Preparation Plants, 2004 edition
NFPA 140	Standard on Motion Picture and Television Production Studio Soundstages and Approved Production Facilities, 1999 edition
NFPA 160	Standard for Flame Effects Before an Audience, 2001 edition
NFPA 204	Standard for Smoke and Heat Venting, 2002 edition
NFPA 211	Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances, 2003 edition
NFPA 220	Standard on Types of Building Construction, 1999 edition
NFPA 221	Standard for Fire Walls and Fire Barrier Walls, 2000 edition
NFPA 230	Standard for the Fire Protection of Storage, 2003 edition
NFPA 232	Standard for the Production of Records, 2000 edition
NFPA 241	Standard for Safeguarding Construction, Alteration, and Demolition Operations, 2000 edition

NFPA 251	Standard Methods of Fire Tests of Building Construction and Materials, 1999 edition
NFPA 252	Standard Methods of Fire Tests of Door Assemblies, 2003 edition
NFPA 253	Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source, 2000 edition
NFPA 255	Standard Method of Test of Surface Burning Characteristics of Building Materials, 2000 edition
NFPA 256	Standard Methods of Fire Tests of Roof Coverings, 1998 edition
NFPA 257	Standard on Fire Test for Window and Glass Block Assemblies, 2000 edition
NFPA 259	Standard Test Method for Potential Heat of Building Materials, 2003 edition
NFPA 260	Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture, 1998 edition
NFPA 261	Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes, 1998 edition
NFPA 265	Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls, 2002 edition
NFPA 267	Standard Method of Test for Fire Characteristics of Mattresses and Bedding Assemblies Exposed to Flaming Ignition Source, 1998 edition
NFPA 268	Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source, 2001 edition

NFPA 285	Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components Using the Intermediate-Scale, Multistory Test Apparatus, 1998 edition
NFPA 286	Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth, 2000 edition
NFPA 288	Standard Methods of Fire Tests of Floor Fire Door Assemblies Installed Horizontally in Fire Resistance-Rated Floor Systems, 2001 edition
NFPA 302	Fire Protection Standard for Pleasure and Commercial Motor Craft, 1998 edition
NFPA 303	Fire Protection Standard for Marinas and Boatyards, 2000 edition
NFPA 307	Standard for the Construction and Fire Protection of Marine Terminals, Piers, and Wharves, 2000 edition
NFPA 312	Standard for Fire Protection of Vessels During Construction, Repair, and Lay-Up, 2000 edition
NFPA 318	Standard for the Protection of Semiconductor Fabrication Facilities, 2002 edition
NFPA 385	Standard for Tank Vehicles for Flammable and Combustible Liquids - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code
NFPA 395	Standard for the Storage of Flammable Liquids at Farms and Isolated Sites - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code

NFPA 407	Standard for Aircraft Fuel Servicing - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code
NFPA 409	Standard on Aircraft Hangars, 2004 edition
NFPA 410	Standard on Aircraft Maintenance, 1999 edition
NFPA 415	Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code
NFPA 418	Standard for Heliports, 2001 edition
NFPA 430	Code for the Storage of Liquid and Solid Oxidizers - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-337 of the Connecticut General Statutes, known as the Connecticut Hazardous Chemicals Code
NFPA 432	Code for the Storage of Organic Peroxide Formulations, 2002 edition
NFPA 434	Code for the Storage of Pesticides, 2002 edition
NFPA 484	Standard for Combustible Metals, Metal Powders, and Metal Dusts, 2002 edition
NFPA 490	Code for the Storage of Ammonium Nitrate, 1998 edition
NFPA 495	Explosive Materials Code, 2001 edition
NFPA 498	Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives, 2001 edition
NFPA 501	Standard on Manufactured Housing, 2003 edition

NFPA 501A	Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities, 2003 edition
NFPA 505	Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operation, 2002 edition
NFPA 560	Standard for the Storage, Handling, and Use of Ethylene Oxide for Sterilization and Fumigation, 2002 edition
NFPA 654	Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, 2000 edition
NFPA 655	Standard for Prevention of Sulfur Fires and Explosions, 2001 edition
NFPA 664	Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, 2002 edition
NFPA 701	Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2004 edition
NFPA 703	Standard for Fire Retardant Impregnated Wood and Fire Retardant Coatings for Building Materials, 2000 edition
NFPA 704	Standard System for the Identification of the Hazards of Materials for Emergency Response, 2001 edition
NFPA 750	Standard on Water Mist Fire Protection Systems, 2003 edition
NFPA 801	Standard for Fire Protection for Facilities Handling Radioactive Materials, 2003 edition
NFPA 909	Code for the Protection of Cultural Resources, 2001 edition
NFPA 1122	Code for Model Rocketry - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-367 of the Connecticut General Statutes, known as the Connecticut Model Rocketry Code

NFPA 1123	Code for Fireworks Display, 2000 edition
NFPA 1124	Standard for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles, 2006 edition
NFPA 1125	Code for the Manufacture of Model Rocket and High Power Rocket Motors, 2001 edition
NFPA 1126	Standard for the Use of Pyrotechnics before a Proximate Audience, 2001 edition
NFPA 1127	Code for High Power Rocketry, 2002 edition
NFPA 1141	Standard for Fire Protection in Planned Building Groups, 1998 edition
NFPA 1142	Standard on Water Supplies for Suburban and Rural Fire Fighting, 2001 edition
NFPA 1144	Standard for Protection of Life and Property from Wildfire, 2002 edition
NFPA 1192	Standard on Recreational Vehicles, 2002 edition
NFPA 1194	Standard on Recreational Vehicle Parks and Campgrounds, 2002 edition
NFPA 1600	Standard on Disaster/Emergency Management and Business Continuity Programs, 2004 edition
NFPA 1963	Standard for Fire Hose Connections, 1998 edition
NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems, 2004 edition
NFPA 5000™	Building Construction and Safety Code™ - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-252 of the Connecticut General Statutes, known as the State Building Code

(Amd) **2.3.3 ASME Publications.** American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990

ASME A13.1, Scheme for the Identification of Piping Systems, 1996 edition

ASME/ANSI A17.1, Safety Code for Elevators and Escalators - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-192 of the Connecticut General Statutes, known as the Connecticut Safety Code for Elevators and Escalators.

ASME/ANSI A17.3, Safety Code for Existing Elevators and Escalators - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-192 of the Connecticut General Statutes, known as the Connecticut Safety Code for Elevators and Escalators.

ASME B31, Code for Pressure Piping, 1998 edition

ASME B31.3, Process Piping, 2002 edition

ASME Boiler Pressure Vessel Code, Section VIII, "Rules for the Construction of Unfired Pressure Vessels," 1998 edition

ASME Code Case Interpretations and Addenda, 1998 edition

(Add) **2.3.16 Regulations of Connecticut State Agencies.** State of Connecticut - Department of Public Safety, 1111 Country Club Road, Middletown, CT 06457-2389

State Building Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-252 of the Connecticut General Statutes.

Connecticut State Fire Safety Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-292 of the Connecticut General Statutes.

Connecticut Fireworks and Special Effects Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-357 of the Connecticut General Statutes.

Connecticut Flammable and Combustible Liquids Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes.

Connecticut Oil Burning Equipment Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-317 of the Connecticut General Statutes.

Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-331 of the Connecticut General Statutes.

Connecticut Gas Equipment and Piping Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-329 of the Connecticut General Statutes.

Connecticut Safety Code for Elevators and Escalators. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-192 of the Connecticut General Statutes.

Connecticut Tent and Portable Shelter Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-140 of the Connecticut General Statutes.

Connecticut Explosives Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-349 of the Connecticut General Statutes.

Connecticut Model Rocketry Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-367 of the Connecticut General Statutes.

Chapter 3

Definitions

(Add) **3.1.1 CSFSC.** Connecticut State Fire Safety Code.

(Add) **3.1.2 SBC.** State Building Code.

(Amd) **3.3.22* Building.** Any structure used or intended for supporting or sheltering any use or occupancy. For application of this code, each portion of a building which is completely separated from other portions by fire walls which have been designed and constructed in accordance with the State Building Code and have been approved by the building official shall be considered a separate building.

(Amd) **3.3.26 Certificate of Fitness.** A written document issued by the State Fire Marshal to any person for the purpose of granting permission to such person to conduct or engage in any operation or act for which certification is required. Where specified in this code, certificate of fitness shall mean license.

(Amd) **3.3.66 Dwelling Unit.** One or more rooms arranged for the use of one or more individuals living together, providing complete, independent living facilities, including permanent provisions for living, sleeping, eating, cooking and sanitation. A dwelling unit consists of more than six lodgers or boarders where care is not provided.

(Add) **3.3.138.4.1 In-home Group B occupancies.** Customary in-home business occupancies located within a single-family dwelling unit that provide professional services that employ a maximum of one employee within the dwelling in addition to the residents of the dwelling unit shall be classified as a single family dwelling.

(Amd) **3.3.138.9* Dormitory.** A building or a space in a building in which group sleeping accommodations are provided for more than 16 persons who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, and with or without individual cooking facilities.

(Amd) **3.3.138.10* Educational Occupancy.** An occupancy used for educational purposes through the twelfth grade by six or more persons for four or more hours per day or more than 12 hours per week. Training and skill development not within a school or academic program shall be classified as business occupancies.

(Add) **3.3.138.23.1 Bed and Breakfast or Bed and Breakfast Establishment.** A building:

- (1) That provides sleeping accommodations to the public for a fee for no more than 16 persons with guest rooms limited to the first or second floor of the structure, and
- (2) Where the owner occupies the facility or an adjacent property as his or her primary place of residence, and
- (3) Where cooking or food warming of any type is not allowed in guest rooms, and

(4) That has a maximum of three stories in height and does not contain a mixed occupancy.

(Del) **Chapter 4 General Requirements.** Delete chapter.

(Del) **Chapter 5 Performance-Based Option.** Delete chapter.

Chapter 6 - 9

Reserved

Chapter 10

General Fire Safety

(Amd) **10.1.2*** Every new and existing building shall comply with this code, the CSFSC and the SBC.

(Del) **10.1.3 Building Code.** Delete section.

(Amd) **10.2.5** All records required to be kept shall be maintained until their useful life has been served, as required by law.

(Amd) **10.3.4.1** In any building or structure, whether or not a physical alteration is needed, a change from one occupancy classification to another shall be permitted only where such a structure, building, or portion thereof conforms with the requirements of the CSFSC.

(Amd) **10.4.1** Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, or any other feature is required for compliance with the provisions of this code, the CSFSC or the SBC, such device, equipment, system, condition, arrangement, level of protection or other feature shall thereafter be continuously maintained in accordance with applicable NFPA requirements or as directed by the AHJ.

(Amd) **10.4.3*** Existing fire and life safety features obvious to the public, if not required by this code, the CSFSC or the SBC, shall be either maintained or removed.

(Del) **10.5 Building Evacuation.** Delete section.

(Amd) **10.6.1 Where Required.** Emergency egress and relocation drills conforming to the provisions of this code shall be conducted as specified by the provisions of Chapter 20 of this code or the CSFSC. Drills shall be designed in cooperation with the local authorities and shall consider the needs of the physically challenged.

(Amd) **10.6.2* Drill Frequency.** Emergency egress and relocation drills, where required by this code or the CSFSC, shall be held at frequencies established by Chapter 20 of this code to familiarize occupants with the drill procedure and to establish conduct of the drill as a matter of routine. Drills shall include suitable procedures to ensure that all persons subject to the drill participate.

(Amd) **10.9.1 Where Required.** Emergency plans shall be provided for high-rise, health care, ambulatory health care, residential board and care, assembly, day care centers, specials amusement buildings, detention and correctional occupancies, underground and windowless structures and facilities storing or handling materials covered by Chapter 20.

(Amd) **10.9.2* Plan Requirements.** Emergency plans shall be developed in accordance with NFPA 1600, *Standard on Disaster/Emergency Management and Business Continuity Programs*, and shall include the procedures for reporting of emergencies; occupant and staff response to emergencies; and the type, coverage and impairment of building fire protection systems.

(Del) **10.11 Open Fires, Incinerators, and Commercial Fireplaces.** Delete section.

(Amd) **10.13.3.1** Stairs serving five or more stories shall be provided with special signage within the enclosure at each floor landing. The signage shall indicate the floor level, the terminus of the top and bottom of the stair enclosure, and the identification of the stair enclosure. The signage also shall state the floor level of, and the direction to, exit discharge. The signage shall be located inside the enclosure approximately 60 in. (1525 mm) above the floor landing in a position that is visible when the door is in the open or closed position. The signage shall comply with the CSFSC. The floor level designation shall also be tactile in accordance with ICC/ANSI A117.1, *American National Standard for Accessible and Usable Buildings and Facilities*.

(Amd) **10.13.3.2** Wherever an enclosed stair requires travel in an upward direction to reach the level of exit discharge, special signs with directional indicators showing the direction to the level of exit discharge shall be provided at each floor level landing from which upward direction of travel is required, unless otherwise provided in sections 10.13.3.2(A) and 10.13.3.2(B). The following also shall apply:

(1) Such signage shall comply with the CSFSC.

(2) Such signage shall be visible when the door is in the open or closed position.

(A) The requirement of section 10.13.3.2 shall not apply where signs required by section 10.13.3.1 are provided.

(B) The requirement of section 10.13.3.2 shall not apply to stairs extending not more than one story below the level of exit discharge where the exit discharge is clearly obvious.

(Amd) **10.13.3.5** The stairway identification letter shall be located at the top of the sign in minimum 1 in. (25 mm) high lettering and shall be in accordance with the CSFSC.

(Amd) **10.13.3.6** Roof access or the lack thereof shall be designated by a sign that reads ROOF ACCESS or NO ROOF ACCESS and located under the stairway identification letter. Lettering shall be a minimum of 1 in. (25 mm) high and shall be in accordance with the CSFSC.

(Amd) **10.13.3.7** The floor level number shall be located in the middle of the sign in minimum 5 in. (125 mm) high numbers and shall be in accordance with the CSFSC.

(Del) Delete sections 10.14.1 through 10.14.3, inclusive, and replace in their entirety as follows:

(Add) **10.14.1 General.** Temporarily unoccupied buildings, structures, premises or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with this section.

(Add) **10.14.1.1 Abandoned Premises.** Buildings, structures and premises for which an owner cannot be identified or located by dispatch of a certificate of mailing to

the last known or registered address, which persistently or repeatedly become unprotected or unsecured; which have been occupied by unauthorized persons or for illegal purposes; or which present a danger of structural collapse or fire spread to adjacent properties shall be considered abandoned, declared unsafe and abated or demolished in accordance with this code.

(Add) **10.14.2 Safeguarding Vacant Premises.** Temporarily unoccupied buildings, structures, premises or portions thereof shall be secured and protected in accordance with this section.

(Add) **10.14.2.1 Security.** Exterior openings and interior openings accessible to other tenants or unauthorized persons shall be boarded, locked, blocked or otherwise protected to prevent entry by unauthorized individuals.

(Add) **10.14.2.2 Fire Protection.** Fire alarm, sprinkler and standpipe systems shall be maintained in an operable condition at all times.

Exceptions:

1. When the premises have been cleared of all combustible materials and debris and, in the opinion of the code official, the type of construction, fire separation distance and security of the premises do not create a fire hazard.
2. Where buildings will not be heated and fire protection systems will be exposed to freezing temperatures, fire alarm and sprinkler systems are permitted to be placed out of service and standpipes are permitted to be maintained as dry systems (without an automatic water supply) provided the building has no contents or storage, and windows, doors and other openings are secured to prohibit entry by unauthorized persons.

(Add) **10.14.2.3 Fire Separation.** Fire-resistance-rated partitions, fire barriers and fire walls separating vacant tenant spaces from the remainder of the building shall be maintained.

(Add) **10.14.3 Removal of Combustibles.** Persons owning, or in charge or control of, a vacant building or portion thereof, shall remove all accumulations of combustible materials and flammable or combustible waste or rubbish from such space and shall securely lock or otherwise secure doors, windows and other openings to prevent entry by unauthorized persons. The premises shall be maintained clear of waste or hazardous materials.

Exceptions:

1. Buildings or portions of buildings undergoing additions, alterations, repairs or change of occupancy under a valid permit in accordance with this code.
2. Seasonally occupied buildings.

(Add) **10.14.4 Removal of hazardous materials.** Persons owning, or in charge or control of, a vacant building or portion thereof, shall remove all accumulations of hazardous materials as defined by this code.

(Amd) **Table 10.15.1**

Table 10.15.1 Provisions for Christmas Trees by Occupancy

Occupancy	No Trees Permitted	Cut Tree Permitted With Automatic Sprinkler System	Cut Tree Permitted Without Automatic Sprinkler System	Balled Tree Permitted
Ambulatory health care				X
Apartment buildings		Within Unit	Within Unit	X
Assembly				X
Board and care				X
Business		X		X
Day-care		X		X
Detention and correctional	X			
Dormitories				X
Educational				X
Health care				X
Hotels				X
Industrial		X	X	X
Lodging and rooming		X		X
Mercantile		X		X
Storage		X	X	X

(Amd) **10.16.3 Life Safety Evaluation.** The AHJ shall be permitted to order a life safety evaluation in accordance with the CSFSC.

(Add) **10.20 Contents and Furnishings.**

(Add) **10.20.1** Where required by the applicable provisions of this code, draperies, curtains and other similar loosely hanging furnishings and decorations shall be flame resistant as demonstrated by testing in accordance with NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*.

(Add) **10.20.2** Where required by the applicable provisions of this code, upholstered furniture and mattresses shall be resistant to a cigarette ignition (that is, smoldering) in accordance with the following:

- (1) Where required by the applicable provisions of this code, the components of the upholstered furniture, unless located in rooms or spaces protected by an approved automatic sprinkler system, shall meet the requirements for Class I when tested in accordance with NFPA 260, *Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture*.
- (2) Where required by the applicable provisions of this code, mocked-up composites of the upholstered furniture, unless located in rooms or spaces protected by an approved automatic sprinkler system, shall have a char length not exceeding 38 mm (1½ in.) when tested in accordance with NFPA 261, *Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes*.
- (3) Where required by the applicable provisions of this code, mattresses, unless located in rooms or spaces protected by an approved automatic sprinkler system, shall have a char length not exceeding 51 mm (2 in.) when tested in accordance with 16 CFR 1632.

(Add) **10.20.3** Where required by the applicable provisions of this code, upholstered furniture, unless the furniture is located in a building protected throughout by an approved automatic sprinkler system, shall have limited rates of heat release when tested in accordance with ASTM E 1537, *Standard Method for Fire Testing of Real Scale Upholstered Furniture Items*, 2001 edition, as follows:

- (1) The peak rate of heat release for the single upholstered furniture item shall not exceed 250 kW.
- (2) The total energy released by the single upholstered furniture item during the first 5 minutes of the test shall not exceed 40 MJ.

(Add) **10.20.4** Where required by the applicable provisions of this code, mattresses, unless the mattress is located in a building protected throughout by an approved automatic sprinkler system, shall have limited rates of heat release when tested in accordance with ASTM E 1590, *Standard Method for Fire Testing of Real Scale Mattresses*, 2001 edition, as follows:

- (1) The peak rate of heat release for the mattress shall not exceed 250 kW.
- (2) The total energy released by the mattress during the first 5 minutes of the test shall not exceed 40 MJ.

Chapter 11

Building Services

(Amd) **11.2.2 Ventilating or Heat-Producing Equipment.** Ventilating or heat-producing equipment shall be in accordance with the CSFSC. Approved existing installations shall be permitted to be continued in service.

(Amd) **11.2.3 Commercial Cooking Equipment.** Commercial cooking equipment shall be in accordance with the International Mechanical Code or NFPA 96, *Standard*

for *Ventilation Control and Fire Protection of Commercial Cooking Operations*, as determined by the CSFSC. Approved existing installations shall be permitted to be continued in service.

(Del) **11.3.1.1** Delete section.

(Del) **11.3.1.2** Delete section.

(Del) **11.3.2 Number of Cars.** Delete section.

(Del) **11.3.3* Elevator Machine Rooms.** Delete section.

(Del) **11.3.4 Elevator Testing.** Delete section.

(Amd) **11.5.2.1** Kerosene burners and oil stoves shall be equipped with a primary safety control furnished as an integral part of the appliance by the manufacturer to stop the flow of oil in the event of flame failure. Barometric oil feed is not permitted. All unvented fuel-burning room heaters shall be listed by a nationally recognized testing laboratory.

(Amd) **11.5.2.2** Unvented kerosene burners and oil stoves shall not be used in any residence other than a single family detached home.

(Amd) **11.6.1.1** Rubbish chutes and laundry chutes shall be separately enclosed by walls or partitions in accordance with the provisions of the CSFSC.

(Amd) **11.6.1.2** Inlet openings serving chutes shall be protected in accordance with the CSFSC.

(Amd) **11.6.1.4** The room used for accessing the chute opening shall be separated from other spaces in accordance with the CSFSC.

Chapter 12

Features of Fire Protection

(Amd) **12.3.1** The design and construction of fire walls and fire barriers that are required to separate buildings or subdivide a building to prevent the spread of fire shall comply with section 12.3 and the CSFSC.

(Amd) **12.7.3.2*** Fire protection ratings for products required to comply with the CSFSC shall be as determined and reported by a nationally recognized testing agency in accordance with NFPA 252, *Standard Methods of Fire Tests of Door Assemblies*, or NFPA 257, *Standard on Fire Test for Window and Glass Block Assemblies*.

(A) Fire protection-rated glazing shall be evaluated under positive pressure in accordance with NFPA 257.

(B) All products required to comply with Part IV section 8.3.3.2 of the CSFSC shall bear an approved label.

(Amd) **12.7.3.3** Unless otherwise specified, fire doors shall be self-closing or automatic-closing in accordance with the CSFSC.

(Amd) **Table 12.7.4.2 Minimum Fire Protection Ratings for Opening Protectives in Fire Resistance-Rated Assemblies**

Component	Walls and Partitions (hr)	Fire Door Assemblies (hr)	Fire Window Assemblies (hr)
Elevator hoistways	2	1 ^{1/2}	NP
	1	1	NP
Vertical shafts (including stairways, exits, and refuse chutes)	2	1 ^{1/2}	NP
	1	1	NP (3/4 in other than exits)
	1/2	1/3	NP (1/3 in other than exits)
Fire barriers	2	1 ^{1/2}	NP
	1	3/4	3/4
Horizontal exits	2	1 ^{1/2}	NP
Exit access corridors ¹	1	1/3	3/4
	1/2	1/3	1/3
Smoke barriers ¹	1/2	1/3	3/4
Smoke partitions ^{1,2}	1/2	1/3	1/3

Note: NP = not permitted.

¹Fire doors are not required to have a hose stream test per NFPA 252.

²For residential board and care, see CSFSC.

(Add) **12.7.4.3.1** Doors having a 20-min fire protection rating or door assemblies consisting of door frames constructed of at least 1 3/4 in. thick hardwood stock and 1 3/4 in. thick solid core doors that are self-closing and positive latching may be used in vertical openings and exit enclosures provided the building has at least either partial automatic sprinkler protection in accordance with Part IV section 9.7 of the CSFSC or a partial fire detection system in accordance with Part IV section 9.6 of the CSFSC. These systems shall include either a sprinkler or fire detector opposite the center of and inside any door that opens into the exit if a partial system, and provisions for occupant notification in accordance with Part IV section 9.6.3 of the CSFSC.

(Amd) **12.7.4.4** Where a 20-minute fire protection-rated door is required in an existing building, an existing 1 3/4 in. (44 mm) solid-bonded wood-core door, an existing steel-clad (tin-clad) wood door, or an existing solid-core steel door with positive latch and closer shall be permitted, unless otherwise specified by the CSFSC.

(Amd) **12.7.5 Penetrations.** The provisions of section 12.7.5 shall govern the materials and methods of construction used to protect through-penetrations and membrane penetrations in fire walls, fire barrier walls, and fire resistance-rated horizontal assemblies. The provisions of section 12.7.5 shall not apply to approved, existing materials and methods of construction used to protect existing through-penetrations and existing membrane penetrations in fire walls, fire barrier walls, and fire resistance-rated horizontal assemblies, unless otherwise required by the CSFSC.

(Amd) **12.7.5.7 Openings for Air-Handling Ductwork.** Openings in fire barriers for air-handling ductwork or air movement shall be protected in accordance with the CSFSC.

(Amd) **12.8.3.1** Doors in smoke partitions shall comply with the CSFSC.

(Amd) **12.8.3.5** Doors shall be self-closing or automatic-closing in accordance with the CSFSC.

(Amd) **12.8.5.1** The provisions of section 12.8.5 shall govern the materials and methods of construction used to protect the joints in between and at the perimeter of smoke partitions or, where smoke partitions meet other smoke partitions, the floor or roof deck above, or the outside walls. The provisions of section 12.8.5 shall not apply to approved existing materials and methods of construction used to protect existing joints in smoke partitions, unless otherwise required by the CSFSC.

(Amd) **12.9.1* General.** Where required by the CSFSC, smoke barriers shall be provided to subdivide building spaces for the purpose of restricting the movement of smoke.

(Amd) **12.9.4.2*** Where required by the CSFSC, doors in smoke barriers shall comply with the requirements of the CSFSC.

(Amd) **12.9.4.3** Latching hardware shall not be required on doors in smoke barriers where permitted by the CSFSC.

(Amd) **12.9.4.4*** Doors in smoke barriers shall be self-closing or automatic-closing in accordance with the CSFSC and shall comply with the provisions of the CSFSC.

(Amd) **12.9.4.5** Fire window assemblies shall comply with the CSFSC.

(Amd) **12.9.5.2 Smoke Damper Exceptions.** Smoke dampers shall not be required under any of the following conditions:

- (1) Where specifically exempted by the provisions of the CSFSC.
- (2) Where ducts or air-transfer openings are part of an engineered smoke control system.
- (3) Where the air in ducts continues to move and the air-handling system installed is arranged to prevent recirculation of exhaust or return air under fire emergency conditions.
- (4) Where the air inlet or outlet openings in ducts are limited to a single smoke compartment.
- (5) Where ducts penetrate floors that serve as smoke barriers.

(Amd) **12.9.6.3** Where a smoke barrier is also constructed as a fire barrier, the penetrations shall be protected in accordance with the requirements of the CSFSC to limit the spread of fire for a time period equal to the fire resistance rating of the assembly and section 12.9.6 to restrict the transfer of smoke, unless the requirements of section 12.9.6.4 are met.

(Amd) **12.9.7.1** The provisions of section 12.9.7 shall govern the materials and methods of construction used to protect the joints in between and at the perimeter of smoke barriers or, where smoke barriers meet other smoke barriers, the floor or roof deck above, or the outside walls. The provisions of section 12.9.7 shall not apply to approved existing materials and methods of construction used to protect existing joints in smoke barriers, unless otherwise required by the CSFSC.

Chapter 13

Fire Protection Systems

(Amd) **13.1.1** Where a fire protection system is required by any other provisions of this code or its referenced standards or installed to achieve compliance with this code, the system shall be maintained as provided by this chapter.

(Del) **13.1.11** Delete section.

(Del) **13.2.1 General.** Delete section.

(Del) **13.2.2 Where Required.** Delete section.

(Amd) **13.2.3.1** A standpipe system installed in accordance with the CSFSC shall be properly maintained to provide at least the same level of performance and protection as designed.

(Del) **13.2.3.4 Existing Systems.** Delete section.

(Amd) **13.3.1.4** Sprinkler piping serving not more than six sprinklers for any isolated hazardous area shall be permitted to be connected directly to a domestic water supply system having a capacity sufficient to provide 6.1 L/min/m² (0.15 gpm/sq ft) throughout the entire enclosed area. Such system shall be installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, with respect to the materials and installation practices. An indicating shutoff valve, supervised in accordance with section 9.7.2 or NFPA 13, *Standard for the Installation of Sprinkler Systems*, shall be permitted to be installed in an accessible, visible, location between the sprinklers and the connection to the domestic water supply.

(Add) **13.3.1.8** Buildings provided with standby electrical power for the purpose of continuing operations or occupancy shall provide standby power for any electric fire pump installed to provide an adequate water supply or minimum operating pressure to a required automatic sprinkler system, except that existing installations may be continued in service subject to the approval of the authority having jurisdiction. Standby power in accordance with NFPA 70®, *National Electrical Code*®, and NFPA 110, *Standard for Emergency and Standby Power Systems, Type 60* shall be provided. The standby power system shall have a capacity and rating sufficient to supply all required equipment. Selective load pickup and load shedding shall be permitted in accordance with NFPA 70®, *National Electrical Code*®.

(Del) **13.3.2.2** Delete section.

(Del) **13.3.2.4 New Assembly Occupancies.** Delete section.

(Del) **13.3.2.5 Existing Assembly Occupancies.** Delete section.

(Del) **13.3.2.6 New Educational Occupancies.** Delete section.

(Del) **13.3.2.7 Existing Educational Occupancies.** Delete section.

(Del) **13.3.2.8 New Health Care Occupancies.** Delete section.

(Del) **13.3.2.9 Existing Health Care Occupancies.** Delete section.

(Del) **13.3.2.10 New Detention and Correction Facilities.** Delete section.

(Del) **13.3.2.11 Existing Detention and Correctional Facilities.** Delete section.

(Del) **13.3.2.12 New Hotels and Dormitories.** Delete section.

(Del) **13.3.2.13 Existing Hotels and Dormitories.** Delete section.

(Del) **13.3.2.14 New Apartment Buildings.** Delete section.

(Del) **13.3.2.15 Existing Apartment Buildings.** Delete section.

(Del) **13.3.2.16 Lodging and Rooming Houses.** Delete section.

- (Del) **13.3.2.17 New Residential Board and Care Facilities.** Delete section.
- (Del) **13.3.2.18 Existing Residential Board and Care Facilities.** Delete section.
- (Del) **13.3.2.19 New Mercantile Occupancies.** Delete section.
- (Del) **13.3.2.20 Existing Mercantile Occupancies.** Delete section.
- (Del) **13.3.2.21 Underground and Windowless Structures.** Delete section.
- (Del) **13.3.2.22 High-Rise Buildings.** Delete section.
- (Del) **13.3.2.23* New Storage Occupancies.** Delete section.
- (Del) **13.3.2.24 New and Existing Day Care.** Delete section.
- (Add) **13.3.3.2.1 Maintenance of NFPA 13D systems.**
- (Add) **13.3.3.2.1.1** A minimum monthly maintenance program shall include the following:
- (1) Visual inspection of all sprinklers to ensure against obstruction of spray.
 - (2) Inspection of all valves to ensure they are open.
 - (3) Checking of the pressure of air used with dry systems.
 - (4) Checking of water level in storage tanks.
- (Add) **13.3.3.2.1.2** A minimum quarterly maintenance program shall include the following:
- (1) Testing of all water flow alarms.
 - (2) Testing of the alarm system.
- (Add) **13.3.3.2.1.3** Sprinklers which have activated or been damaged shall be replaced with sprinklers having the same performance characteristics as the original equipment.
- (Add) **13.3.3.2.1.4** Any sprinklers that have been painted outside the factory shall be replaced with a new listed sprinkler.
- (Amd) **13.5.3* Backflow Prevention Devices.** The installation of devices to protect the public water supply from contamination shall comply with the provisions of NFPA 13, *Standard for the Installation of Sprinkler Systems*, or NFPA 24, *Installation of Private Fire Service Mains and Their Appurtenances*, and the SBC.
- (Amd) **13.6.1.2* Where Required.** Fire extinguishers shall be provided as follows:
- (1) Where required by other parts of this code.
 - (2) As specified in sections 13.6.1.2.1 through 13.6.1.2.6.
 - (3) Where required by the referenced codes and standards listed in Chapter 2 and Part II of the CSFSC.
- (Del) **Table 13.6.1.2 Portable Fire Extinguishers Required.** Delete table.
- (Add) **13.6.1.2.1** Portable fire extinguishers shall be required in all occupancies, except storage Use Groups S-1 and S-2, outside and immediately adjacent to the entrance to all special hazardous areas except general storage areas. If the only entrance to a hazardous area is from the exterior of the building, the fire extinguisher may be located just inside the entrance door.
- (Add) **13.6.1.2.2** Portable fire extinguishers shall be required throughout health care occupancies including Use Groups I-1 and I-2 occupancies.

(Add) **13.6.1.2.3** Portable fire extinguishers shall be required throughout ambulatory health care occupancies including Use Group B medical occupancies.

(Add) **13.6.1.2.4** Portable fire extinguishers shall be required in staff locations within detention and correctional occupancies including Use Group I-3 occupancies. Access to portable fire extinguishers shall be permitted to be locked.

(Add) **13.6.1.2.5** Portable fire extinguishers shall be required in Group R-1 bed and breakfast establishments as required by the CSFSC.

(Add) **13.6.1.2.6** Portable fire extinguishers shall be provided where commercial cooking equipment is utilized.

(Amd) **13.7.1.4.9.2** Smoke alarms shall receive their operating power as follows:

- (1) In buildings for which a building permit for new occupancy was issued on or after October 1, 1985, smoke alarms shall be powered by both alternating current (AC) and batteries (DC).
- (2) In buildings for which a building permit for new occupancy was issued on or after October 1, 1976, until September 30, 1985, smoke alarms shall be powered by the household electrical service.
- (3) In buildings for which a building permit was issued prior to October 1, 1976, smoke alarms may be battery powered.

(Amd) **13.7.1.4.9.3** Where two or more smoke alarms are required within a dwelling unit, suite of rooms, or similar area, they shall be arranged so that operation of any smoke alarm shall cause the alarm in all smoke alarms within the dwelling unit, suite of rooms, or similar area to sound, unless otherwise permitted by the following:

- (1) The requirement of section 13.7.1.4.9.3 shall not apply where permitted by another section of this code.
- (2) The requirement of section 13.7.1.4.9.3 shall not apply to configurations that provide equivalent distribution of the alarm signal.
- (3) The requirement of section 13.7.1.4.9.3 shall not apply to installations existing prior to October 16, 1989.

(Amd) **13.7.1.4.9.5** Where required by the CSFSC, an automatic fire detection system shall be provided in hazardous areas for initiation of the signaling system.

(Amd) **13.7.1.4.10.2** Occupant notification shall be in accordance with sections 13.7.1.4.10.3 through 13.7.1.4.10.11, unless otherwise provided in sections 13.7.1.4.10.2(A) through 13.7.1.4.10.2(D).

- (A)* Elevator lobby, hoistway, and associated machine room smoke detectors used solely for elevator recall, and heat detectors used solely for elevator power shutdown, shall not be required to activate the building evacuation alarm if the power supply and installation wiring to such detectors are monitored by the building fire alarm system, and if the activation of such detectors results in an audible and visible alarm signal at a constantly attended location.
- (B)* Smoke detectors used solely for closing dampers or heating, ventilating, and air-conditioning system shutdown shall not be required to activate the building evacuation alarm.
- (C)* Detectors located at doors for the exclusive operation of automatic door release shall not be required to activate the building evacuation alarm.

(D) Detectors in accordance with the CSFSC shall not be required to activate the building evacuation alarm.

(Amd) **13.7.1.4.10.3** Where permitted by the CSFSC, a presignal system shall be permitted where the initial fire alarm signal is automatically transmitted without delay to a municipal fire department, a fire brigade (if provided), and an on-site staff person trained to respond to a fire emergency.

(Amd) **13.7.1.4.10.4** Where permitted by the CSFSC, a positive alarm sequence shall be permitted, provided that it is in accordance with NFPA 72, *National Fire Alarm Code*.

(Amd) **13.7.1.4.10.5** Unless otherwise provided in sections 13.7.1.4.10.5(A) through 13.7.1.4.10.5(G), notification signals for occupants to evacuate shall be audible and visible signals in accordance with NFPA 72, *National Fire Alarm Code*, and ICC/ANSI A117.1, *American National Standard for Accessible and Usable Buildings and Facilities*, or other means of notification acceptable to the AHJ shall be provided.

- (A) Areas not subject to occupancy by persons who are hearing impaired shall not be required to comply with the provisions for visible signals.
- (B) Visible-only signals shall be provided where specifically permitted in health care occupancies in accordance with the provisions of the CSFSC.
- (C) Existing alarm systems shall not be required to comply with the provision for visible signals.
- (D) Visible signals shall not be required in lodging or rooming houses in accordance with the provisions of the CSFSC.
- (E) Visible signals shall not be required in exit stair enclosures.
- (F) Visible signals shall not be required in elevator cars.
- (G) When selective occupant notification is utilized in accordance with the CSFSC, the portions of the building that do not receive the initial notification of alarm shall be separated from areas of the immediate emergency and initial evacuation by construction having a fire resistance rating of at least 1 hour.

(Amd) **13.7.1.4.10.6** The general evacuation alarm signal shall operate in accordance with one of the methods prescribed by the CSFSC.

- (A) The general evacuation alarm signal shall operate throughout the entire building.
- (B)* Where total evacuation of occupants is impractical due to building configuration, only the occupants in the affected zones shall be notified initially. Provisions shall be made to selectively notify occupants in other zones to afford orderly evacuation of the entire building.
- (C) Where occupants are incapable of evacuating themselves because of age, physical or mental disabilities, or physical restraint, the private operating mode as described in NFPA 72®, *National Fire Alarm Code*®, shall be permitted to be used. Only the attendants and other personnel required to evacuate occupants from a zone, area, floor, or building shall be required to be notified. The notification shall include means to readily identify the zone, area, floor, or building in need of evacuation.
- (D) In mall buildings, notification within the mall shall be permitted in accordance with the CSFSC.
- (E) The general evacuation signal shall not be required to operate in exit stair enclosures.

(F) The general evacuation signal shall not be required to operate in elevator cars.

(Amd) **13.7.1.4.10.10** Unless otherwise permitted by another section of this code, audible and visible fire alarm notification appliances shall comply with the CSFSC.

(A) Audible and visible fire alarm notification appliances shall be used only for fire alarm system or other emergency purposes.

(B) Voice communication systems shall be permitted to be used for other purposes, subject to the approval of the AHJ, if the fire alarm system takes precedence over all other signals.

(Amd) **13.7.1.4.12.3** The functions specified in section 13.7.1.4.12.2 shall be permitted to be actuated by any fire alarm and control system where otherwise not required by this code. Additionally, such a fire alarm and control system shall be permitted to recall elevators, as required by the CSFSC, if the activation of the system for this purpose comes only from elevator lobby, hoistway, or associated machine room detectors.

(Amd) **13.7.1.4.14.8** If a floor area exceeds 22,500 ft² (2090 m²), additional fire alarm zoning shall be provided, and the length of any single fire alarm zone shall not exceed 300 ft (91 m) in any direction, except as provided in section 13.7.1.4.14.8(A) through 13.7.1.4.14.8(C) or otherwise modified by another section of this code.

(A) Where permitted by another section of this code, fire alarm zones shall be permitted to exceed 22,500 ft² (2090 m²), and the length of a zone shall be permitted to exceed 300 ft (91 m) in any direction.

(B) Where the building is protected by an automatic sprinkler system in accordance with the CSFSC, the area of the fire alarm zone shall be permitted to coincide with the allowable area of the sprinkler system.

(C) Where the building is protected by an automatic sprinkler system in accordance with the CSFSC, the sprinkler system shall be permitted to be annunciated on the fire alarm system as a single zone.

(Amd) **13.7.2.2 Existing Assembly Occupancies.** Assembly occupancies with occupant loads of more than 300 and all theaters with more than one audience-viewing room shall be provided with an approved fire alarm system in accordance with section 13.7.1.4 of this code and the CSFSC, unless otherwise permitted by the following:

(1) Assembly occupancies that are a part of a multiple occupancy protected as a mixed occupancy shall be permitted to be served by a common fire alarm system, provided that the individual requirements of each occupancy are met.

(2) Voice communication or public address systems complying with Part IV section 13.3.4.3.3 of the CSFSC shall not be required to comply with section 13.7.1.4 of this code.

(3) This requirement shall not apply to assembly occupancies where, in the judgment of the AHJ, adequate alternative provisions exist or are provided for the discovery of a fire and for alerting the occupants promptly.

(Amd) **13.7.2.5.2 Detection in Spaces Open to Corridors.** Detectors shall be installed in spaces open to the corridor in accordance with the CSFSC.

(Amd) **13.7.2.5.3* Nursing Homes.** An approved automatic smoke detection system shall be installed in corridors throughout smoke compartments containing patient sleeping rooms and in spaces open to corridors as permitted in nursing homes by the CSFSC, unless otherwise permitted by the following:

(1) Corridor systems shall not be required where each patient sleeping room is protected by an approved smoke detection system.

(2) Corridor systems shall not be required where patient room doors are equipped with automatic door-closing devices with integral smoke detectors on the room side installed in accordance with their listing, provided that the integral detectors provide occupant notification.

(Amd) **13.7.2.6.2 Corridors.** An approved automatic smoke detection system in accordance with 13.7.1 shall be installed in all corridors of limited care facilities, unless otherwise permitted by the following:

(1) Where each patient sleeping room is protected by an approved smoke detection system, and a smoke detector is provided at smoke barriers and horizontal exits in accordance with section 13.7.1.4 of this code, the corridor smoke detection system shall not be required on the patient sleeping room floors.

(2) Smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with the CSFSC shall be permitted.

(Amd) **13.7.2.6.3 Detection in Spaces Open to Corridors.** Detectors shall be installed in spaces open to the corridor in accordance with the CSFSC.

(Amd) **13.7.2.7.1** Detention and correctional occupancies shall be provided with a fire alarm system in accordance with section 13.7.1.4, except as modified by the CSFSC.

(Amd) **13.7.2.7.2.2** Other arrangements and positioning of smoke detectors shall be permitted to prevent damage or tampering, or for other purposes. Such arrangements shall be capable of detecting any fire, and the placement of detectors shall be such that the speed of detection is equivalent to that provided by the spacing and arrangements required by the installation standards referenced in section 13.7.1.4. Detectors shall be permitted to be located in exhaust ducts from cells, behind grilles, or in other locations. The equivalent performance of the design, however, shall be acceptable to the AHJ in accordance with the equivalency concepts specified in the CSFSC.

(Amd) **13.7.2.8.1** Detention and correctional occupancies shall be provided with a fire alarm system in accordance with section 13.7.1.4, except as modified by the CSFSC.

(Amd) **13.7.2.8.2.2** Other arrangements and positioning of smoke detectors shall be permitted to prevent damage or tampering, or for other purposes. Such arrangements shall be capable of detecting any fire, and the placement of detectors shall be such that the speed of detection is equivalent to that provided by the spacing and arrangements required by the installation standards referenced in section 13.7.1.4. Detectors shall be permitted to be located in exhaust ducts from cells, behind grilles, or in other locations. The equivalent performance of the design, however, shall be determined by the AHJ in accordance with the equivalency concepts specified in the CSFSC.

(Amd) **13.7.2.8.2.4** In smoke compartments protected throughout by an approved automatic sprinkler system in accordance with the CSFSC, smoke detectors shall not be required, except in corridors, common spaces, and sleeping rooms with more than four occupants.

(Amd) **13.7.2.9.1** A fire alarm system in accordance with section 13.7.1.4, except as modified by the CSFSC, shall be provided.

(Amd) **13.7.2.9.2 Detection.** A corridor smoke detection system in accordance with section 13.7.1.4 shall be provided in buildings other than those protected throughout by an approved, supervised automatic sprinkler system in accordance with the CSFSC.

(Amd) **13.7.2.10.1** A fire alarm system in accordance with 13.7.1.4, except as modified by the CSFSC, shall be provided in buildings other than those where each guest room has exterior exit access in accordance with the CSFSC, and the building does not exceed three stories in height.

(Amd) **13.7.2.11.1** Apartment buildings with more than three stories or with more than 11 dwelling units, other than those meeting section 13.7.2.11.2 or 13.7.2.11.3, shall be provided with a fire alarm system in accordance with section 13.7.1.4, except as modified by the CSFSC.

(Amd) **13.7.2.11.2** A fire alarm system shall not be required in buildings where each dwelling unit is separated from other contiguous dwelling units by fire barriers having a fire resistance rating of not less than 1 hour, and where each dwelling unit has either its own independent exit or its own independent stairway or ramp discharging at grade.

(Amd) **13.7.2.11.3** A fire alarm system shall not be required in buildings that are protected throughout by an approved, automatic sprinkler system in accordance with the CSFSC, that do not exceed four stories in height, and that contain not more than 16 dwelling units.

(Amd) **13.7.2.11.5** In buildings other than those protected throughout by an approved, supervised automatic sprinkler system installed in accordance with the CSFSC, approved single-station smoke alarms shall be installed in every sleeping room in accordance with 13.7.1.4.10.

(Amd) **13.7.2.12.1** Apartment buildings with more than three stories or with more than 11 dwelling units, other than those meeting the CSFSC, shall be provided with a fire alarm system in accordance with section 13.7.1.4, except as modified by the CSFSC.

(Amd) **13.7.2.12.1.1** A fire alarm system shall not be required where each dwelling unit is separated from other contiguous dwelling units by fire barriers having a fire resistance rating of not less than $1/2$ hour, and where each dwelling unit has either its own independent exit or its own independent stairway or ramp discharging at grade.

(Amd) **13.7.2.13.1** A fire alarm system in accordance with section 13.7.1.4 shall not be required in existing lodging and rooming houses that have an existing smoke detection system meeting or exceeding the requirements of the CSFSC where that detection system includes not less than one manual fire alarm box per floor arranged to initiate the smoke detection alarm.

(Amd) **13.7.2.13.2.3** Each lodging and rooming house shall install a smoke alarm which, when activated, shall provide an approved visible alarm suitable to warn occupants in at least one room.

(Amd) **13.7.2.14.4** Residential buildings designed to be occupied by one family for which a building permit for new occupancy was issued prior to October 1, 1978 are not required to comply with this section 13.7.2.14.

(Amd) **13.7.2.15.1.3** Additional smoke alarms shall be installed in all living areas as defined in the CSFSC.

(Amd) **13.7.2.16.1.4* Smoke Alarms.** Approved smoke alarms shall be provided in accordance with the CSFSC.

- (A) Smoke alarms shall be powered from the building electrical system and, when activated, shall initiate an alarm that is audible in all sleeping areas.
- (B) Smoke alarms shall be installed on all levels, including basements but excluding crawl spaces and unfinished attics.
- (C) Additional smoke alarms shall be installed for living rooms, dens, day rooms, and similar spaces.

(Del) **13.7.2.16.1.5** Delete section.

(Del) **13.7.2.16.1.6** Delete section.

(Amd) **13.7.2.16.2.1** A fire alarm system in accordance with section 13.7.1.4 shall be provided unless each sleeping room has exterior exit access in accordance with the CSFSC and the building is not more than three stories in height.

(Amd) **13.7.2.16.2.2 Smoke Alarms.** Smoke alarms shall be provided in accordance with the CSFSC. Each sleeping room shall be provided with an approved smoke alarm in accordance with section 13.7.1.4.10 that is powered from the building electrical system.

(Amd) **13.7.2.16.2.3 Smoke Detection Systems.** All living areas as defined in the CSFSC and all corridors shall be provided with smoke detectors that comply with NFPA 72®, *National Fire Alarm Code*, and are arranged to initiate an alarm that is audible in all sleeping areas, as modified by sections 13.7.2.16.2.3(A) and (B).

- (A) Detectors shall not be required in living areas in facilities protected throughout by an approved automatic sprinkler system installed in accordance with the CSFSC.
- (B) Detectors shall not be required in unenclosed corridors, passageways, balconies, colonnades, or other arrangements with one or more sides along the long dimension fully or extensively open to the exterior at all times.

(Amd) **13.7.2.23.3.3** One of the following shall be provided in all rooms used for sleeping:

- (1) Single-station or multiple-station smoke alarms in accordance with section 13.7.1.4.9 that are powered by the building electrical system
- (2) System detectors with integral sounding devices in accordance with the CSFSC.

(Amd) **13.7.2.24.3.3** One of the following shall be provided in all rooms used for sleeping:

- (1) Single-station or multiple-station smoke alarms in accordance with section 13.7.1.4.9 that are powered by the building electrical system
- (2) System detectors with integral sounding devices in accordance with the CSFSC.

(Amd) **13.7.2.26 Existing Ambulatory Health Care Occupancies.** Ambulatory health care facilities shall be provided with fire alarm systems in accordance with section 13.7.1.4, except as modified by the CSFSC.

(Amd) **13.7.4.4.1** The maintenance and testing schedules and procedures for fire alarm and fire detection systems shall be in accordance with Chapter 10 of NFPA 72®, *National Fire Alarm Code*®.

(Amd) **13.7.4.7*** Sensitivity of smoke detectors in other than one- and two-family dwellings shall be tested in accordance with sections 13.7.4.7.1 through 13.7.4.7.6.

(Amd) **13.8 Other Fire Protection Systems.** Where other fire protection systems are required to be installed by the provisions of this code, or are installed with the approval of the AHJ as an alternative or equivalency, the design and installation of the system shall comply with the appropriate standards listed in Table 13.8. The system shall be tested and maintained in accordance with the CSFSC.

Chapter 14

Means of Egress

(Amd) **14.2 Exit Access Corridors.** Corridors used as exit access and serving an area having an occupant load exceeding 30 shall be separated from other parts of the building by walls having not less than a 1-hour fire resistance rating in accordance with the CSFSC, unless otherwise permitted by the following:

- (1) This requirement shall not apply to existing buildings, provided that the occupancy classification does not change.
- (2) This requirement shall not apply where otherwise provided in the CSFSC and SBC.

(Amd) **14.3.1** Where the CSFSC requires an exit to be separated from other parts of the building, the separating construction shall meet the requirements of the CSFSC and the following:

- (1)* The separation shall have not less than a 1-hour fire resistance rating where the exit connects three stories or less.
- (2)* The separation shall have not less than a 2-hour fire resistance rating where the exit connects four or more stories, unless one of the following conditions exists:
 - (a) In existing non-high-rise buildings, existing exit stair enclosures shall have not less than a 1-hour fire resistance rating.
 - (b) In existing buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with the CSFSC, existing exit stair enclosures shall have not less than a 1-hour fire resistance rating.
 - (c) One-hour enclosures in accordance with the CSFSC shall be permitted as an alternative to the requirement of section 7.1.3.2.1(2).
- (3) The 2-hour fire resistance separation required by section 14.3.1(2) shall be constructed of an assembly of noncombustible or limited-combustible materials and shall be supported by construction having not less than a 2-hour fire resistance rating.
- (4) Openings in the separation shall be protected by fire door assemblies equipped with door closers complying with the CSFSC.
- (5)* Openings in exit enclosures shall be limited to doors from normally occupied spaces and corridors and doors for egress from the enclosure, unless one of the following conditions exists:

- (a) Openings in exit passageways in mall buildings as provided in the CSFSC shall be permitted.
- (b) In buildings of Type I or II construction, existing fire-protection rated doors to interstitial spaces shall be permitted, provided that such spaces meet all of the following criteria:
 - i. The space is used solely for distribution of pipes, ducts, and conduits.
 - ii. The space contains no storage.
 - iii. The space is separated from the exit enclosure in accordance with the CSFSC.
- (c) Existing openings to mechanical equipment spaces protected by approved existing fire protection-rated doors shall be permitted, providing that the following criteria are met:
 - i. The space is used solely for non-fuel-fired mechanical equipment.
 - ii. The space contains no storage of combustible materials.
 - iii. The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with the CSFSC.
- (6) Penetrations into, and openings through, an exit enclosure assembly shall be limited to the following:
 - (a) Doors permitted by the CSFSC.
 - (b) Electrical conduit serving the stairway.
 - (c) Required exit doors.
 - (d) Duct work and equipment necessary for independent stair pressurization.
 - (e) Water or steam piping necessary for the heating or cooling of the exit enclosure.
 - (f) Sprinkler piping.
 - (g) Standpipes.
 - (h) Existing penetrations protected in accordance with the CSFSC.
 - (i) Penetrations for fire alarm circuits where the circuits are installed in metallic conduit and the penetrations are protected in accordance with the CSFSC.
 - (j) Penetrations by ductwork for required ventilation of the exit enclosure shall be permitted when:
 - i. The exit enclosure does not have any portion of its walls or roof exposed to the exterior of the building;
 - ii. The duct opening is protected by a combination smoke and fire damper in accordance with the CSFSC; and
 - iii. The smoke damper closes upon shutdown of the associated heating, ventilation and cooling unit.
- (7) Penetrations or communicating openings shall be prohibited between adjacent exit enclosures.

(Amd) **14.4.1*** Means of egress and primary means of escape shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency.

(Add) **14.4.1.1** Where horizontal-sliding or vertical-rolling security grilles or doors are permitted to be located in part of the required means of egress, they shall meet the following operational criteria:

- (1) Such grilles or doors shall remain secured in the fully open position during the period of occupancy by the general public.
- (2) On or adjacent to the grille or door, there shall be a readily visible, durable sign in letters not less than 25 mm (1 in.) high on a contrasting background that reads as follows:

THIS DOOR TO REMAIN OPEN WHEN THE BUILDING IS OCCUPIED.

- (3) Doors or grilles shall not be brought to the closed position when the space is occupied.
- (4) Doors or grilles shall be operable from within the space without the use of any special knowledge or effort.

(Add) **14.4.1.2 Powered Doors.** Where means of egress doors are operated by power upon the approach of a person or are provided with power-assisted manual operation, they shall meet the following operational criteria:

A readily visible, durable sign in letters not less than 25 mm (1 in.) high on a contrasting background that reads as follows shall be located on the egress side of each door:

IN EMERGENCY, PUSH TO OPEN

(Add) **14.4.1.3** Open space within the exit enclosure shall not be used for any purpose that has the potential to interfere with egress.

(Amd) **14.4.3 Impediments to Egress.** Any device or alarm installed to restrict the improper use of a means of egress shall be designed and installed so that it cannot, even in case of failure, impede or prevent emergency use of such means of egress unless otherwise provided in the CSFSC.

(Add) **14.4.3.1 Security Device.** Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premises shall be prohibited.

(Amd) **14.5.1.1.1** Sliding doors in detention and correction occupancies as provided in the CSFSC shall be permitted.

(Del) **14.5.1.1.2** Delete section.

(Amd) **14.5.1.1.3** Doors in residential board and care occupancies as provided in the CSFSC shall be permitted.

(Amd) **14.5.1.1.4** Where permitted in the CSFSC, horizontal-sliding or vertical-rolling security grilles or doors that are part of the required means of egress shall be permitted, provided that they meet the following criteria:

- (1) Such grilles or doors shall remain secured in the fully open position during the period of occupancy by the general public.
- (2) On or adjacent to the grille or door, there shall be a readily visible, durable sign in letters not less than 1 in. (25 mm) high on a contrasting background that reads as follows:

THIS DOOR TO REMAIN OPEN WHEN THE BUILDING IS OCCUPIED.

- (3) Doors or grilles shall not be brought to the closed position when the space is occupied.
- (4) Doors or grilles shall be operable from within the space without the use of any special knowledge or effort.
- (5) Where two or more means of egress are required, not more than half of the means of egress shall be equipped with horizontal-sliding or vertical-rolling grilles or doors.

(Amd) **14.5.1.1.5** Horizontal-sliding doors complying with the CSFSC shall be permitted.

(Amd) **14.5.1.1.7** Revolving doors complying with the CSFSC shall be permitted.

(Amd) **14.5.1.1.8** Existing fusible link-operated horizontal-sliding or vertical-rolling fire doors shall be permitted to be used as provided in the CSFSC.

(Amd) **14.5.1.2** Doors required to be of the side-hinged or pivoted-swinging type shall swing in the direction of egress travel where serving a room or area with an occupant load of 50 or more, except under the following conditions:

- (1) Doors in horizontal exits shall not be required to swing in the direction of egress travel where permitted by the CSFSC.
- (2) Smoke barrier doors shall not be required to swing in the direction of egress travel in existing health care occupancies as provided in the CSFSC.

(Amd) **14.5.1.3** A door shall swing in the direction of egress travel under either of the following conditions:

- (1) Where the door is used in an exit enclosure, unless (A) the door is the door of an individual living unit that opens directly into an exit enclosure or (B) in an existing building where the door serves an occupant load of fewer than 50 persons and does not serve a high hazard contents area.
- (2) When the door serves a high hazard contents area.

(Amd) **14.5.1.5.4** The opening forces for horizontal-sliding doors in detention and correctional occupancies shall be as provided in the CSFSC.

(Amd) **14.5.1.5.5** The opening forces for power-operated doors shall be as provided in the CSFSC.

(Amd) **14.5.2.3** The requirements of sections 14.5.2.1 and 14.5.2.2 shall not apply where otherwise provided in the CSFSC.

(Amd) **14.5.2.4** Exterior doors shall be permitted to have key-operated locks from the egress side, provided that the following criteria are met:

- (1) This alternative is permitted in the CSFSC for the specific occupancy.
- (2) A readily visible, durable sign in letters not less than 1 in. (25 mm) high on a contrasting background that reads as follows is located on or adjacent to the door:

THIS DOOR TO REMAIN UNLOCKED WHEN THE BUILDING IS OCCUPIED.

- (3) The locking device is of a type that is readily distinguishable as locked.
- (4) A key is immediately available to any occupant inside the building when it is locked.

(Amd) **14.5.2.6** Where permitted by the CSFSC, key operation shall be permitted, provided that the key cannot be removed when the door is locked from the side from which egress is to be made.

(Amd) **14.5.2.7.2** The requirement of section 14.5.2.7 shall not apply to the following:

- (1) Existing installations as permitted in the CSFSC.
- (2) Stair enclosures serving a building permitted to have a single exit in accordance with the CSFSC.
- (3) Stair enclosures in health care occupancies where otherwise provided in the CSFSC.

- (4) Stair enclosures in detention and correctional occupancies where otherwise provided in the CSFSC.

(Amd) **14.5.3.1 Delayed-Egress Locks.** Approved, listed, delayed-egress locks shall be permitted to be installed on doors serving low and ordinary hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system in accordance with section 13.7 or an approved, supervised automatic sprinkler system in accordance with section 13.3, and where permitted in the CSFSC, provided that the following criteria are met:

- (1) The doors shall unlock upon actuation of one of the following:
 - (a) An approved, supervised automatic sprinkler system in accordance with section 13.3.
 - (b) Any heat detector.
 - (c) Not more than two smoke detectors of an approved, supervised automatic fire detection system in accordance with section 13.7.
- (2) The doors shall unlock upon loss of power controlling the lock or locking mechanism.
- (3) An irreversible process shall release the lock within 15 seconds, or 30 seconds where approved by the AHJ, upon application of a force to the release device required in section 14.5.2.9 under the following conditions:
 - (a) The force shall not be required to exceed 15 lbf (67 N).
 - (b) The force shall not be required to be continuously applied for more than 3 seconds.
 - (c) The initiation of the release process shall activate an audible signal in the vicinity of the door.
 - (d) Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.
- (4) A readily visible, durable sign in letters not less than 1 in. (25 mm) high and not less than $\frac{1}{8}$ in. (3.2 mm) in stroke width on a contrasting background that reads as follows shall be located on the door adjacent to the release device:

PUSH UNTIL ALARM SOUNDS
DOOR CAN BE OPENED IN 15 SECONDS

Where the AHJ has permitted a longer time for release, the sign shall reflect such time.

(Amd) **14.5.3.2 Access-Controlled Egress Doors.** Where permitted in the CSFSC, entrance doors to buildings and tenant spaces in the means of egress shall be permitted to be equipped with an approved entrance and egress access control system, provided that the following criteria are met:

- (1) One of the following shall be provided:
 - (a) A sensor on the egress side, arranged to detect an occupant approaching doors that are arranged to unlock in the direction of egress upon detection of an approaching occupant or loss of power to the sensor.
 - (b) Listed panic hardware or fire exit hardware that, when operated, unlocks the door.
- (2) Loss of power to the part of the access control system that locks the doors shall automatically unlock the doors in the direction of egress.
- (3) The doors shall be arranged to unlock in the direction of egress from a manual release device located 40 in. to 48 in. (1015 mm to 1220 mm) vertically above the floor and within 60 in. (1525 mm) of the secured doors.

- (4) The manual release device specified in section 14.5.3.2(3) shall be readily accessible and clearly identified by a sign that reads as follows: PUSH TO EXIT.
- (5) When operated, the manual release device shall result in direct interruption of power to the lock - independent of the access control system electronics - and the doors shall remain unlocked for not less than 30 seconds.
- (6) Activation of the building fire-protective signaling system, if provided, shall automatically unlock the doors in the direction of egress, and the doors shall remain unlocked until the fire-protective signaling system has been manually reset.
- (7) Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors in the direction of egress, and the doors shall remain unlocked until the fire-protective signaling system has been manually reset.

(Amd) **14.5.3.3.3** Required panic hardware and fire exit hardware, in other than detention and correctional occupancies as otherwise provided in the CSFSC, shall not be equipped with any locking device, set screw, or other arrangement that prevents the release of the latch when pressure is applied to the releasing device.

(Amd) **14.5.4.2** In any building of low or ordinary hazard contents, as defined in the CSFSC, or where approved by the AHJ, doors shall be permitted to be automatic-closing, provided that the following criteria are met:

- (1) Upon release of the hold-open mechanism, the door becomes self-closing.
- (2) The release device is designed so that the door instantly releases manually and, upon release, becomes self-closing, or the door can be readily closed.
- (3) The automatic releasing mechanism or medium is activated by the operation of approved smoke detectors installed in accordance with the requirements for smoke detectors for door release service in NFPA 72®, *National Fire Alarm Code*®.
- (4) Upon loss of power to the hold-open device, the hold-open mechanism is released and the door becomes self-closing.
- (5) The release by means of smoke detection of one door in a stair enclosure results in closing all doors serving that stair.

(Amd) **14.6.1.2** Inside stairs, other than those serving as an exit or exit component, shall be protected in accordance with the CSFSC.

(Amd) **14.6.3.2** Enclosed, usable space shall be permitted under stairs, provided that the following criteria are met:

- (1) The space is separated from the stair by the same fire resistance as the exit enclosure.
- (2) Entrance to the enclosed, usable space shall not be from within the stair enclosure.

(Amd) **14.6.4.1** Stairs serving five or more stories shall be provided with special signage within the enclosure at each floor landing. The signage shall indicate the floor level, the terminus of the top and bottom of the stair enclosure, and the identification of the stair enclosure. The signage also shall state the floor level of, and the direction to, exit discharge. The signage shall be located inside the enclosure approximately 60 in. (1525 mm) above the floor landing in a position that is visible when the door is in the open or closed position. The signage shall comply with the

CSFSC. The floor level designation shall also be tactile in accordance with ICC/ANSI A117.1, *American National Standard for Accessible and Usable Buildings and Facilities*.

(Amd) **14.6.4.2** Wherever an enclosed stair requires travel in an upward direction to reach the level of exit discharge, special signs with directional indicators showing the direction to the level of exit discharge shall be provided at each floor level landing from which upward direction of travel is required, unless otherwise provided in sections 14.6.4.2.1 and 14.6.4.2.2, and the following also shall apply:

- (1) Such signage shall comply with the CSFSC.
- (2) Such signage shall be visible when the door is in the open or closed position.

(Amd) **14.6.4.4** The stairway identification letter shall be located at the top of the sign in minimum 1 in. (25 mm) high lettering and shall be in accordance with the CSFSC.

(Amd) **14.6.4.5** Roof access or the lack thereof shall be designated by a sign that reads ROOF ACCESS or NO ROOF ACCESS and located under the stairway identification letter. Lettering shall be a minimum of 1 in. (25 mm) high and shall be in accordance with the CSFSC.

(Amd) **14.6.4.6** The floor level number shall be located in the middle of the sign in minimum 5 in. (125 mm) high numbers and shall be in accordance with the CSFSC. Mezzanine levels shall have the letter “M” or other appropriate identification letter preceding the floor number, while basement levels shall have the letter “B” or other appropriate identification letter preceding the floor level number.

(Amd) **14.6.4.7** Identification of the lower and upper terminus of the stairway shall be located at the bottom of the sign in minimum 1 in. (25 mm) high letters or numbers and shall be in accordance with the CSFSC.

(Amd) **14.7.1* General.** Exit passageways used as egress components shall conform to the general requirements of the CSFSC and to the special requirements of section 14.7.

(Amd) **14.7.2 Enclosure.** An exit passageway shall be separated from other parts of the building as specified in section 14.3, and the following alternatives shall be permitted:

- (1) Fire windows in accordance with the CSFSC shall be permitted to be installed in the separation in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with section 13.3.
- (2) Existing fixed wired glass panels in steel sash shall be permitted to be continued in use in the separation in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with section 13.3.

(Amd) **14.7.4 Width.** The width of an exit passageway shall be adequate to accommodate the aggregate required capacity of all exits that discharge through it, unless one of the following conditions applies:

- (1) Where an exit passageway serves occupants of the level of exit discharge as well as other stories, the capacity shall not be required to be aggregated.
- (2) As provided in the CSFSC, an exit passageway in a mall building shall be permitted to accommodate occupant loads independently from the mall and the tenant spaces.

(Amd) Table 14.8.1.2 Occupant Load Factor

Use	ft² (per person)¹	m² (per person)¹
Assembly Use		
Concentrated use, without fixed seating	7 net	0.65 net
Less concentrated use, without fixed seating	15 net	1.4 net
Bench-type seating	1 person/18 linear in.	1 person/455 linear mm
Fixed seating	Number of fixed seats	Number of fixed seats
Waiting spaces	See the CSFSC	See the CSFSC
Courtrooms – other than fixed seating	40 net	3.7 net
Kitchens	200	18.6
Library stack areas	100	9.3
Library reading rooms	50 net	4.6 net
Swimming pools	50 (water surface)	4.6 (water surface)
Swimming pool decks	30	2.8
Exercise rooms	50	4.6
Stages	15 net	1.4 net
Lighting and access catwalks, galleries, gridirons	100 net	9.3 net
Casinos and similar gaming areas	11	1
Skating rinks	50	4.6
Airport Terminal Areas		
Baggage claim	20	1.9
Baggage handling	300	27.9
Concourse	100	9.3
Waiting areas	15	1.4
Educational Use		
Classrooms	20 net	1.9 net
Shops, laboratories, vocational rooms	50 net	4.6 net
Day-Care Use	35 net	3.3 net
Health Care Use		
Inpatient treatment departments	240	22.3
Outpatient treatment departments	100	9.3
Sleeping departments	120	11.1
Detention and Correctional Use	120	11.1
Residential Use		
Hotels and dormitories	200	18.6

Apartment buildings	200	18.6
Board and care, large	200	18.6
Industrial Use		
General and high hazard industrial	100	9.3
Special purpose industrial	NA	NA
Business Use		
Storage Use (other than mercantile storerooms)	NA	NA
Accessory storage areas, mechanical equipment rooms	300 gross	27.9 gross
Warehouses	500 gross	46.5 gross
Mercantile Use		
Sales area on street floor ^{2,3}	30	2.8
Sales area on two or more street floors ³	40	3.7
Sales area on floor below street floor ³	30	2.8
Sales area on floors above street floor ³	60	5.6
Floors or portions of floors used only for offices	See business use	See business use
Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	300	27.9
Mall buildings ⁴	Per factors applicable to use of space ⁵	Per factors applicable to use of space ⁵

Note: NA = not applicable. The occupant load is the maximum probable number of occupants present at any time.

¹ All factors are expressed in gross area unless marked “net.”

² For the purpose of determining occupant load in mercantile occupancies where, due to differences in grade of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 40 ft² (3.7 m²) of gross floor area of sales space.

³ For the purpose of determining occupant load in mercantile occupancies with no street floor, as defined in the CSFSC, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.

⁴ For any food court or other assembly use areas located in the mall that are not included as a portion of the gross leasable area of the mall building, the occupant load is calculated based on the occupant load factor for that use as specified in this table. The remaining mall area is not required to be assigned an occupant load.

⁵ The portions of the mall that are considered a pedestrian way and not used as gross leasable area are not required to be assessed an occupant load based on this

table. However, means of egress from a mall pedestrian way are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor stores) by the appropriate lowest whole number occupant load factor from Figure 14.8.1.2.

Each individual tenant space is required to have means of egress to the outside or to the mall based on occupant loads calculated by using the appropriate occupant load factor from this table.

Each individual anchor store is required to have means of egress independent of the mall.

Source: Part IV Table 7.3.1.2 of the CSFSC.

(Amd) **14.8.3.3.1** The width of any means of egress, unless otherwise provided in sections 14.8.3.3.1.1 through 14.8.3.3.1.3, shall be as follows:

- (1) Not less than that required for a given egress component in the CSFSC.
- (2) Not less than 36 in. (915 mm).

(Amd) **14.8.3.3.1.3** The requirement of section 14.8.3.3.1 shall not apply to the following:

- (1) Doors as otherwise provided for in the CSFSC.
- (2) Aisles and aisle accessways in assembly occupancies as otherwise provided in the CSFSC.
- (3) Industrial equipment access as otherwise provided in the CSFSC.

(Amd) **14.9.1.1** The number of means of egress from any balcony, mezzanine, story, or portion thereof shall be not less than two, except under one of the following conditions:

- (1) Where a single means of egress is permitted in the CSFSC.
- (2) Where a single means of egress is permitted for a mezzanine or balcony and the common path of travel limitations of the CSFSC are met.

(Amd) **14.9.1.2** The number of means of egress from any story or portion thereof, other than for existing buildings as permitted in the CSFSC, shall be as follows:

- (1) Occupant load more than 500 but not more than 1000 - not less than 3.
- (2) Occupant load more than 1000 - not less than 4.

(Amd) **14.9.1.3** Accessible means of egress in accordance with the CSFSC that do not utilize elevators shall be permitted to serve as any or all of the required minimum number of means of egress.

(Add) **14.9.1.6.1** The provisions of section 14.9.1.6 shall not apply to buildings for which a building permit was issued prior to June 15, 1994.

(Amd) **14.10.1.1.3** The requirement of sections 14.10.1.1.1 and 14.10.1.1.2 shall not apply where a single exit is permitted in the CSFSC.

(Amd) **14.10.1.1.4** Where common paths of travel are permitted for an occupancy in the CSFSC, such common paths of travel shall be permitted but shall not exceed the limit specified.

(Amd) **14.10.1.2.1** Approved existing corridors that require passage through a room to access an exit shall be permitted to continue to be used, provided that the following criteria are met:

- (1) The path of travel is marked in accordance with the CSFSC.
- (2) Doors to such rooms comply with the CSFSC.
- (3) Such arrangement is not prohibited by the applicable occupancy chapter in the CSFSC.

(Amd) **14.10.1.4.2*** Existing interlocking or scissor stairs shall be permitted to be considered separate exits if they meet the following criteria:

- (1) They are enclosed in accordance with the CSFSC.
- (2) They are separated from each other by 2-hour fire resistance-rated noncombustible construction.
- (3) No protected or unprotected penetrations or communicating openings exist between the stair enclosures.

(Amd) **14.10.1.5*** Exit access shall be arranged so that there are no dead ends in corridors, unless permitted by, and limited to, the length specified in the CSFSC.

(Amd) **14.10.1.6** Exit access from rooms or spaces shall be permitted to be through adjoining or intervening rooms or areas, provided that such rooms or areas are accessory to the area served. Foyers, lobbies, and reception rooms constructed as required for corridors shall not be construed as intervening rooms. Exit access shall be arranged so that it is not necessary to pass through any area identified under Protection from Hazards as specified in Chapters 12 through 42, inclusive, in the CSFSC.

(Amd) **14.10.2 Impediments to Egress.**

(Amd) **14.10.2.1** Access to an exit shall not be through kitchens, storerooms other than as provided in the CSFSC, restrooms, workrooms, closets, bedrooms or similar spaces, or other rooms or spaces subject to locking, unless passage through such rooms or spaces is permitted for the occupancy by the CSFSC.

(Amd) **14.10.3.1** Exit access shall be permitted to be by means of any exterior balcony, porch, gallery, or roof that conforms to the requirements of the CSFSC.

(Amd) **14.10.3.4** Exterior exit access shall be arranged so that there are no dead ends in excess of those permitted for dead-end corridors in the CSFSC.

(Amd) **14.10.4.3** Each required accessible means of egress shall be continuous from each accessible occupied area to a public way or area of refuge in accordance with the CSFSC.

(Amd) **14.10.4.4** Where an exit stair is used in an accessible means of egress, it shall comply with the CSFSC and shall either incorporate an area of refuge within an enlarged story-level landing or shall be accessed from an area of refuge.

(Amd) **14.10.4.5** To be considered part of an accessible means of egress, an elevator shall be in accordance with the CSFSC.

(Amd) **14.10.4.6** To be considered part of an accessible means of egress, a smoke barrier in accordance with the CSFSC with not less than a 1-hour fire resistance rating, or a horizontal exit in accordance with the CSFSC, shall discharge to an area of refuge in accordance with the CSFSC.

(Amd) **14.11.1.4** Means of egress shall be permitted to terminate in an exterior area of refuge for detention and correctional occupancies as provided in the CSFSC.

(Amd) **14.11.2 Discharge through Areas on Level of Exit Discharge.** Not more than 50 percent of the required number of exits, and not more than 50 percent of the required egress capacity, shall be permitted to discharge through areas on the level of exit discharge, unless otherwise permitted in sections 14.11.2.1 and 14.11.2.2, provided that the criteria of sections 14.11.2.3 through 14.11.2.6 are met.

(Amd) **14.11.2.1** One hundred percent of the exits shall be permitted to discharge through areas on the level of exit discharge in detention and correctional occupancies as provided in the CSFSC.

(Amd) **14.11.2.4** The level of discharge shall be protected throughout by an approved, automatic sprinkler system in accordance with section 13.3, or the portion of the level of discharge used for discharge shall be protected by an approved, automatic sprinkler system in accordance with section 13.3 and shall be separated from the nonsprinklered portion of the floor by a fire resistance rating meeting the requirements for the enclosure of exits.

(Amd) **14.11.2.7** Levels below the level of discharge in an atrium shall be permitted to be open to the level of discharge where such level of discharge is protected in accordance with the CSFSC.

(Amd) **14.11.5 Signs.** See the CSFSC.

(Amd) **14.12.1.5** The equipment or units installed to meet the requirements of the CSFSC also shall be permitted to serve the function of illumination of means of egress, provided that all requirements of the CSFSC for such illumination are met.

(Amd) **14.12.2.2** Battery-operated electric lights and other types of portable lamps or lanterns shall not be used for primary illumination of means of egress. Battery-operated electric lights shall be permitted to be used as an emergency source to the extent permitted under the CSFSC.

(Amd) **14.13.1.1*** Emergency lighting facilities for means of egress shall be provided in accordance with section 14.13 for the following:

- (1) Buildings or structures where required in the CSFSC.
- (2) Underground and limited access structures as addressed in the CSFSC.
- (3) High-rise buildings as required by the CSFSC.
- (4) Doors equipped with delayed-egress locks.
- (5) Stair shaft and vestibule of smokeproof enclosures, for which the following also apply:
 - (a) The stair shaft and vestibule shall be permitted to include a standby generator that is installed for the smokeproof enclosure mechanical ventilation equipment.
 - (b) The standby generator shall be permitted to be used for the stair shaft and vestibule emergency lighting power supply.

(Amd) **14.14.1.1 Where Required.** Means of egress shall be marked in accordance with Section 14.14 where required in the CSFSC.

(Amd) **14.14.1.6* Floor Proximity Exit Signs.** Where floor proximity exit signs are required in the CSFSC, such signs shall be located near the floor level in addition to those signs required for doors or corridors. The signs shall be illuminated in accordance with the CSFSC. Externally illuminated signs shall be sized in accordance with the CSFSC. The bottom of the sign shall be not less than 6 in. (150 mm) but

not more than 18 in. (455 mm) above the floor. For exit doors, the sign shall be mounted on the door or adjacent to the door, with the nearest edge of the sign within 4 in. (100 mm) of the door frame.

(Amd) **14.14.1.7* Floor Proximity Egress Path Marking.** Floor proximity egress path marking shall be provided as required by the CSFSC.

(Amd) **14.14.2* Directional Signs.** A sign complying with the CSFSC with a directional indicator showing the direction of travel shall be placed in every location where the direction of travel to reach the nearest exit is not apparent.

(Amd) **14.14.4* Power Source.** Where emergency lighting facilities are required by the applicable provisions of the CSFSC for individual occupancies, the signs, other than approved self-luminous signs, shall be illuminated by the emergency lighting facilities. The level of illumination of the signs shall be in accordance with section 14.14.5.2.1 or 14.14.5.2.2 for the required emergency lighting duration as specified in the CSFSC. However, the level of illumination shall be permitted to decline to 60 percent at the end of the emergency lighting duration.

(Amd) **14.14.5.2.1** Every sign required to be illuminated by sections 14.14.6.3 and 14.14.6.4 shall be continuously illuminated as required under the provisions of the CSFSC unless otherwise provided in section 14.14.5.2.2.

(Amd) **14.14.6.5.1.2** Where emergency lighting facilities are required by the applicable provisions of the CSFSC, the required illumination of special signs shall additionally be provided under emergency lighting conditions.

(Del) **Chapter 15. Planned Building Groups.** Delete chapter.

Chapter 16

Safeguards During Building Construction, Alteration, and Demolition Operations

(Amd) **16.1.3** In buildings under construction, adequate escape facilities shall be maintained at all times for the use of construction workers. Escape facilities shall consist of doors, walkways, stairs, ramps, fire escapes, ladders, or other approved means or devices, insofar as they can reasonably be applied to buildings under construction.

(Amd) **16.2.2.2** Rubbish shall not be burned on the premises without first obtaining applicable approval.

(Del) **16.3.5.1*** Delete section.

(Del) **16.3.5.4*** Delete section.

(Amd) **16.3.7.5.1** In all buildings over one story in height, at least one stairway shall be provided that is in usable condition at all times.

(Del) **16.3.9.1*** Delete section.

(Del) **16.3.9.3** Delete section.

(Del) **16.3.9.4** Delete section.

(Amd) **16.4.2.1** Protection shall be provided to separate an occupied portion of the structure from a portion of the structure undergoing alteration, construction, or demolition operations as required by the SBC.

(Del) **16.4.2.2** Delete section.

(Del) **16.4.2.3** Delete section.

(Del) **16.4.2.4** Delete section.

(Del) **16.4.3.1.1** Delete section.

(Del) **16.4.3.2.3** Delete section.

(Del) **16.8.2 Permits.** Delete section.

(Del) **Chapter 17 Wildland Urban Interface.** Delete chapter.

Chapter 18

Fire Department Access and Water Supply

(Amd) **18.1 General.** Fire department access shall comply with this chapter.

(Del) **18.3 Water Supplies and Fire Hydrants.** Delete section.

Chapter 19

Combustible Waste and Refuse

(Del) **19.1.8 Vehicles or Conveyances Used to Transport Combustible Waste or Refuse.** Delete section.

(Amd) **19.2.1.4 Rubbish within Dumpsters.** Dumpsters and containers with an individual capacity of 1.5 yd³ (1.15 m³) or more shall not be stored in buildings or placed within 10 ft (3 m) of combustible walls, openings, or combustible roof eave lines unless meeting either section 19.2.1.4.1 or 19.2.1.4.2.

Chapter 20

Occupancy Fire Safety

(Amd) **20.1 Assembly Occupancies including Assembly Groups A-1, A-2, A-3, A-4 and A-5.**

(Amd) **20.1.1 Application.** New and existing assembly occupancies shall comply with section 20.1 and the CSFSC.

(Amd) **20.1.2.2** Foamed plastics (*see definition of cellular or foamed plastic in the CSFSC*) shall be permitted to be used only with specific approval of the AHJ.

(Amd) **20.1.3.1* General.** Special amusement buildings, regardless of occupant load, shall meet the requirements for assembly occupancies in addition to the requirements of the CSFSC, unless the special amusement building is a multilevel play structure that is not more than 120 in. (3050 mm) in height and has aggregate horizontal projections not exceeding 160 ft² (15 m²).

(Amd) **20.1.3.6 Illumination.** Actuation of the automatic sprinkler system, or any other suppression system, or actuation of a smoke detection system having an

approved verification or cross-zoning operation capability shall provide the following:

- (1) Cause illumination in the means of egress to increase to the level required by the CSFSC.
- (2) Stop any conflicting or confusing sounds and visuals.

(Amd) **20.1.3.7.1** Exit marking shall be in accordance with the CSFSC.

(Amd) **20.1.3.7.2** Floor proximity exit signs shall be provided in accordance with the CSFSC.

(Amd) **20.1.3.8 Interior Finish.** Interior wall and ceiling finish materials complying with the CSFSC shall be Class A throughout.

(Amd) **20.1.4.1.3** Food preparation facilities shall be protected in accordance with the CSFSC and shall not be required to have openings protected between food preparation areas and dining areas.

(Amd) **20.1.4.2 Open Flame Devices and Pyrotechnics.** No open flame devices or pyrotechnic devices shall be used in any assembly occupancy, unless otherwise permitted by the following:

- (1) Pyrotechnic special effect devices shall be permitted to be used on stages before proximate audiences for ceremonial or religious purposes, as part of a demonstration in exhibits, or as part of a performance, provided that both of the following criteria are met:
 - (a) Precautions satisfactory to the AHJ are taken to prevent ignition of any combustible material.
 - (b) Use of the pyrotechnic device complies with NFPA 1126, *Standard for the Use of Pyrotechnics before a Proximate Audience*.
- (2) Flame effects before an audience shall be permitted in accordance with NFPA 160, *Standard for Flame Effects Before an Audience*.
- (3) Open flame devices shall be permitted to be used in the following situations, provided that precautions satisfactory to the AHJ are taken to prevent ignition of any combustible material or injury to occupants:
 - (a) For ceremonial or religious purposes.
 - (b) On stages and platforms where part of a performance.
 - (c) Where candles on tables are securely supported on substantial non-combustible bases and the candle flame is protected.
- (4) This requirement shall not apply to heat-producing equipment complying with the CSFSC.
- (5) This requirement shall not apply to food service operations in accordance with the CSFSC.
- (6) Gas lights shall be permitted to be used, subject to the approval of the AHJ, provided that precautions are taken to prevent ignition of any combustible materials.

(Del) **20.1.4.3.5** Delete section.

(Add) **20.1.4.3.8 Stage standpipe system.** When the AHJ determines that material such as scenery, props and temporary fixtures are present on a stage equipped with hose connections create an extraordinary fire load, a fire watch equipped with fire hoses attached to the hose outlets on the stage for first aid firefighting shall be provided whenever an audience is present.

(Amd) **20.1.4.4.3 Materials Not on Display.** Combustible materials not on display, including combustible packing crates used to ship exhibitors' supplies and products, shall be stored in a room having an enclosure consisting of a smoke barrier having a fire resistance rating of 1 hour and protected by an automatic extinguishing system, or outside the building.

(Amd) **20.1.4.4.4** Exhibit booths shall be constructed of the following:

- (1) Noncombustible or limited-combustible materials.
- (2) Wood exceeding 1/4 in. (6.3 mm) nominal thickness or wood not exceeding 1/4 in. (6.3 mm) nominal thickness that is pressure-treated, fire-retardant wood meeting the requirements of NFPA 703, *Standard for Fire Retardant Impregnated Wood and Fire Retardant Coatings for Building Materials*.
- (3) Flame-retardant materials complying with NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*.
- (4) Textile wall coverings, such as carpet and similar products used as wall or ceiling finishes, complying with the provisions of the CSFSC.
- (5) Plastics limited to those that comply with section 12.3.3 and the CSFSC.
- (6) Foamed plastics and materials containing foamed plastics having a heat release rate for any single fuel package that does not exceed 100 kW where tested in accordance with UL 1975, *Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes*.
- (7) Cardboard, honeycombed paper, and other combustible materials having a heat release rate for any single fuel package that does not exceed 150 kW where tested in accordance with UL 1975, *Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes*.

(Amd) **20.1.4.4.7** The following shall be protected by automatic fire extinguishing systems:

- (1) Single-level exhibit booths exceeding 300 ft² (28 m²) and covered with a ceiling.
- (2) Each level of multilevel exhibit booths, including the uppermost level where the uppermost level is covered with a ceiling.
- (A) The requirements of section 20.1.4.4.7 shall not apply where otherwise permitted by the following:
 - (i) Ceilings that are constructed of open grate design or listed dropout ceilings in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, shall not be considered ceilings within the context of 20.1.4.4.7.
 - (ii) Vehicles, boats, and similar exhibition products having over 100 ft² (9.3 m²) of roofed area shall be provided with smoke detectors acceptable to the AHJ.
 - (iii) The requirement of section 20.1.4.4.7(2) shall not apply where fire protection of the multilevel exhibit booths is consistent with the criteria developed through a life safety evaluation of the exhibition hall in accordance with the CSFSC, subject to the approval of the AHJ.
- (B) A single exhibit or group of exhibits with ceilings that do not require sprinklers shall be separated by a distance of not less than 120 in. (3050 mm) where the aggregate ceiling exceeds 300 ft² (28 m²).
- (C) The water supply and piping for the sprinkler system shall be permitted to be of an approved, temporary means that is provided by a domestic water supply, a standpipe system or a sprinkler system.

(Amd) **20.1.4.4.4.9** Cooking and food-warming devices in exhibit booths shall comply with the CSFSC and the following:

- (1) Gas-fired devices shall comply with the following:
 - (a) Natural gas-fired devices shall comply with the CSFSC.
 - (b) The requirement of section 20.1.4.4.4.9(1)(a) shall not apply to compressed natural gas where permitted by the AHJ.
 - (c) The use of LP-Gas cylinders shall be prohibited.
 - (d) Nonrefillable LP-Gas cylinders shall be approved for use where permitted by the AHJ.
- (2) The devices shall be isolated from the public by not less than 48 in. (1220 mm) or by a barrier between the devices and the public.
- (3) Multi-well cooking equipment using combustible oils or solids shall comply with the CSFSC.
- (4) Single-well cooking equipment using combustible oils or solids shall meet the following criteria:
 - (a) They shall have lids available for immediate use.
 - (b) They shall be limited to 288 in.² (0.2 m²) of cooking surface.
 - (c) They shall be placed on noncombustible surface materials.
 - (d) They shall be separated from each other by a horizontal distance of not less than 24 in. (610 mm).
 - (e) The requirement of section 20.1.4.4.4.9(4)(d) shall not apply to multiple single-well cooking equipment where the aggregate cooking surface area does not exceed 288 in.² (0.2 m²).
 - (f) They shall be kept at a horizontal distance of not less than 24 in. (610 mm) from any combustible material.
- (5) A portable fire extinguisher in accordance with the CSFSC shall be provided within the booth for each device, or an approved automatic extinguishing system shall be provided.

(Amd) **20.1.4.6.3*** In the following assembly occupancies, an audible announcement shall be made, or a projected image shall be shown, prior to the start of each program that notifies occupants of the location of the exits to be used in case of a fire or other emergency:

- (1) Theaters.
- (2) Motion picture theaters.
- (3) Auditoriums.
- (4) Other similar assembly occupancies with occupant loads exceeding 100 where there are noncontinuous programs.

(Amd) **20.1.4.7.1** The requirements of section 20.1.4.7 shall apply where smoking is prohibited by any provision of the Connecticut General Statutes.

(Amd) **20.1.4.8.1.1** Seats in assembly occupancies accommodating more than 200 persons shall be securely fastened to the floor, except where fastened together in groups of not less than three and as permitted by section 20.1.4.8.2.

(Amd) **20.1.4.8.1.2** Groups of seats exceeding 14 in balconies and galleries separated from other groups by railings, guards, partial height walls, or similar barriers shall be securely fastened to the floor except in existing places of religious worship.

(Amd) **20.1.4.8.2.3** Detailed seating plans including the occupant load shall be submitted for approval by the AHJ. Deviations from the approved plans shall be

allowed provided the occupant load limit for the occupancy is not exceeded and the aisles and exit accessways remain unobstructed.

(Amd) **20.1.4.10 Projection Room.** Film or video projectors or spotlights utilizing light sources that produce particulate matter, or toxic gases or light sources that produce hazardous radiation, without protective shielding, shall be located within a projection room complying with the CSFSC.

(Amd) **20.2 Educational Occupancies including Education Group E.**

(Amd) **20.2.1 Application.** New and existing educational occupancies shall comply with the CSFSC.

(Add) **20.2.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Amd) **20.2.3.1.2** Emergency egress and relocation drills shall be conducted as follows:

- (1) Not less than one emergency egress and relocation drill shall be conducted every month the facility is in session, unless both of the following criteria are met:
 - (a) In climates where the weather is severe, the monthly emergency egress and relocation drills shall be permitted to be deferred.
 - (b) The required number of emergency egress and relocation drills shall be conducted, and not less than four shall be conducted before the drills are deferred.
- (2) All occupants of the occupancy shall participate in the drill.
- (3) One additional emergency egress and relocation drill, other than for educational occupancies that are open on a year-round basis, shall be required not later than 30 days after opening.
- (4) A written report shall be kept by the school administrator describing the date and time of the drill, person in charge of the drill, and time of recall.

(Add) **20.2.3.1.4** Emergency evacuation drills shall be conducted at different hours of the day or evening, during the change of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires.

(Add) **20.2.3.1.5** Outdoor assembly areas shall be designated and shall be located a safe distance from the building being evacuated so as to avoid interference with fire department operations. The assembly areas shall be arranged to keep each class separate to provide accountability.

(Amd) **20.2.3.3.1** Draperies, curtains and other similar furnishings and decorations in educational occupancies shall be in accordance with the provisions of NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*.

(Add) **20.2.4 Room Locations.**

(Add) **20.2.4.1** Rooms normally occupied by preschool, kindergarten or first-grade students shall be located on a level of exit discharge, unless otherwise permitted by section 20.2.4.3.

(Add) **20.2.4.2** Rooms normally occupied by second-grade students shall not be located more than one story above a level of exit discharge, unless otherwise permitted by section 20.2.4.3.

(Add) **20.2.4.3** Rooms or areas located on floor levels other than as specified in sections 20.2.4.1 and 20.2.4.2 shall be permitted to be used where provided with independent means of egress dedicated for use by the preschool, kindergarten, first-grade or second-grade students.

(Amd) **20.3 Day-Care Occupancies, including those considered Institutional Group I-4.**

(Amd) **20.3.1 Application.** New and existing day-care occupancies shall comply with section 20.3 and the CSFSC.

(Add) **20.3.1.5 Permits.** Permits, if required, shall comply with section 1.12.19.

(Amd) **20.3.3 Additional Requirements.**

(Del) **20.3.3.1 Classification.** Delete section.

(Amd) **20.3.3.2.1* Emergency Plans.** Emergency plans shall be provided.

(Add) **20.3.3.2.1.1** Emergency plans shall include the following:

- (1) Procedures for reporting of emergencies.
- (2) Occupant and staff response to emergencies.
- (3) Design and conduct of fire drills.
- (4) Type and coverage of building fire protection systems.
- (5) Other items required by the AHJ.

(Add) **20.3.3.2.1.2** Required emergency plans shall be submitted to the AHJ for review.

(Add) **20.3.3.2.1.3** Emergency plans shall be reviewed and updated as required by the AHJ.

(Amd) **20.3.3.2.2.2** Emergency egress and relocation drills shall be conducted as follows:

- (1) Not less than one emergency egress and relocation drill shall be conducted every month the facility is in session, unless both of the following criteria are met:
 - (a) In climates where the weather is severe, the monthly emergency egress and relocation drills shall be permitted to be deferred.
 - (b) The required number of emergency egress and relocation drills shall be conducted, and not less than four shall be conducted before the drills are deferred.
- (2) All occupants of the occupancy shall participate in the drill.
- (3) One additional emergency egress and relocation drill, other than for educational occupancies that are open on a year-round basis, shall be required not later than 30 days after opening.

(Amd) **20.4 Health Care Occupancies, including Institutional Group I-2.**

(Amd) **20.4.1 Application.** New and existing health care occupancies shall comply with section 20.4 and the CSFSC.

(Add) **20.4.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Amd) **20.4.2.1.4** The provisions of sections 10.6, 10.9 and 20.4.2.1.2 through 20.4.2.2.3 shall apply.

(Amd) **20.4.2.5.1*** Draperies, curtains, and other loosely hanging fabrics and films serving as furnishings or decorations in health care occupancies shall be in accordance with the provisions of section 20.4.2.5.2 and the following also shall apply:

- (1) Such curtains shall include cubical curtains.
- (2) Such curtains shall not include curtains at showers.

(Amd) **20.4.2.5.3** Newly introduced upholstered furniture within health care occupancies shall meet the criteria specified in the CSFSC.

(Amd) **20.4.2.5.5** Newly introduced mattresses within health care occupancies shall meet the criteria specified in the CSFSC.

(Add) **20.4.2.7 Alcohol-Based Hand-Rub Solutions.** Alcohol-based hand-rub dispensers shall be protected as required for flammable and combustible liquids unless all of the following conditions are met:

- (1) Where dispensers are installed in exit access corridors, the corridor shall have a minimum width of 1830 mm (72 in.), except that projections of maximum 152 mm (6 in.) from the corridor wall above handrail height shall be permitted for dispensing units.
- (2) The maximum individual dispenser fluid capacity shall be:
 - (a) 1.2 L (0.32 gal) for dispensers in rooms, corridors and areas open to corridors.
 - (b) 2.0 L (0.53 gal) for dispensers in suites of rooms.
- (3) The dispensers shall have a minimum horizontal spacing of 1220 mm (48 in.) from each other.
- (4) Not more than an aggregate 37.8 L (10 gal) of alcohol-based hand-rub solution shall be in use in a single smoke compartment outside of a storage cabinet.
- (5) Storage of quantities greater than 18.9 L (5 gal) in a single smoke compartment shall meet the requirements of the Connecticut Flammable and Combustible Liquids Code.
- (6) The dispensers shall not be installed over or directly adjacent to an ignition source.
- (7) In locations with carpeted floor coverings, dispensers installed directly over carpeted surfaces shall be permitted only in sprinklered smoke compartments.

(Amd) **20.5 Residential Board and Care Occupancies, including Residential Group R-4 and Institutional Group I-1.**

(Amd) **20.5.1 Application.** New and existing residential board and care occupancies shall comply with section 20.5 and the CSFSC.

(Add) **20.5.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Amd) **20.5.2.3.6** If the board and care facility has an evacuation capability classification of impractical, those residents who cannot meaningfully assist in their own evacuation or who have special health problems shall not be required to actively participate in the drill. Section 20.4.2 shall apply in such instances.

(Amd) **20.5.2.5.1** New draperies, curtains and other similar loosely hanging furnishings and decorations in board and care facilities shall be in accordance with the provisions of section 10.20.1 of this code.

(Amd) **20.5.2.5.2.1** New upholstered furniture shall be tested in accordance with the provisions of sections 10.20.2(1) and 10.20.3 of this code.

(Amd) **20.5.2.5.2.3*** New mattresses within board and care facilities shall comply with section 20.5.2.5.2.3(A) or 20.5.2.5.2.3(B).

(A) New upholstered furniture shall be tested in accordance with the provisions of sections 10.20.2(3) and 10.20.4 of this code.

(B) Mattresses belonging to residents in sleeping rooms shall not be required to be tested, provided that a smoke alarm is installed in such rooms; battery-powered single-station smoke alarms shall be permitted in such rooms.

(Amd) **20.6 Ambulatory Health Care Centers, including Business Group B Medical Occupancies.**

(Amd) **20.6.1 Application.** New and existing ambulatory health care centers shall comply with section 20.6 and the CSFSC.

(Add) **20.6.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Amd) **20.6.2.1.1.1** All employees shall be periodically instructed and kept informed with respect to their duties under a plan developed in accordance with sections 20.4.2.1 and 20.4.2.2.

(Amd) **20.6.2.1.1.2** A copy of the plan required by section 20.6.2.1.1.1 shall be readily available at all times in the telephone operator's position or at the security center.

(Amd) **20.6.2.5.1*** Draperies, curtains and other loosely hanging fabrics and films serving as furnishings or decorations in ambulatory health care occupancies shall be in accordance with the provisions of section 10.20.1 of this code, and the following also shall apply:

(1) Such curtains shall include cubicle curtains.

(2) Such curtains shall not include curtains at showers.

(Amd) **20.6.2.5.3** Newly introduced upholstered furniture shall meet the criteria specified when tested in accordance with the methods cited in sections 10.20.2(2) and 10.20.3 of this code.

(Amd) **20.6.2.5.4** Newly introduced mattresses shall meet the criteria specified when tested in accordance with the methods cited in sections 10.20.2(3) and 10.20.4 of this code.

(Add) **20.6.2.7 Alcohol-Based Hand-Rub Solutions.** Alcohol-based hand-rub dispensers shall be protected as required for flammable and combustible liquids unless all of the following conditions are met:

(1) Where dispensers are installed in exit access corridors, the corridor shall have a minimum width of 1830 mm (72 in.) except that projections of maximum 152 mm (6 in.) from the corridor wall above handrail height shall be permitted for dispensing units.

(2) The maximum individual dispenser fluid capacity shall be:

(a) 1.2 L (0.32 gal) for dispensers in rooms, corridors and areas open to corridors.

(b) 2.0 L (0.53 gal) for dispensers in suites of rooms.

(3) The dispensers shall have a minimum horizontal spacing of 1220 mm (48 in.) from each other.

(4) Not more than an aggregate 37.8 L (10 gal) of alcohol-based hand-rub solution shall be in use in a single smoke compartment outside of a storage cabinet.

- (5) Storage of quantities greater than 18.9 L (5 gal) in a single smoke compartment shall meet the requirements of the Connecticut Flammable and Combustible Liquids Code.
- (6) The dispensers shall not be installed over or directly adjacent to an ignition source.
- (7) In locations with carpeted floor coverings, dispensers installed directly over carpeted surfaces shall be permitted only in sprinklered smoke compartments.

(Amd) 20.7 Detention and Correctional Occupancies, including Institutional Group I-3.

(Amd) 20.7.1 Application. New and existing detention and correctional occupancies shall comply with section 20.7 and the CSFSC.

(Amd) 20.7.2.1.1 Detention and correctional facilities, or those portions of facilities having such occupancy, shall be provided with 24-hour staffing, and the following requirements also shall apply:

- (1) Staff shall be within three floors or a 300 ft (91 m) horizontal distance of the access door of each resident housing area.
- (2) In addition, for Use Condition III, Use Condition IV and Use Condition V, the arrangement shall be such that the staff involved starts the release of locks necessary for emergency evacuation or rescue and initiates other necessary emergency actions within 2 minutes of alarm.
- (3) The following shall apply to areas in which all locks are unlocked remotely in compliance with the CSFSC:
 - (a) Staff shall not be required to be within three floors or 300 ft (91 m) of the access door.
 - (b) The 10-lock, manual key exemption of the CSFSC shall not be permitted to be used in conjunction with this alternative requirement.

(Amd) 20.7.2.4.3 Newly introduced upholstered furniture within detention and correctional occupancies shall be tested in accordance with the provisions of sections 10.20.2(2) and 10.20.3 of this code.

(Amd) 20.7.2.4.4* Newly introduced mattresses within detention and correctional occupancies shall be tested in accordance with the provisions of sections 10.20.2(3) and 10.20.4 of this code.

(Amd) 20.8 Hotels, including Residential Group R-1 and Bed and Breakfast Establishments.

(Amd) 20.8.1 Application. New and existing hotels and bed and breakfast establishments shall comply with section 20.8 and the CSFSC.

(Add) 20.8.1.1 Permits. Permits, if required, shall comply with section 1.12.19.

(Amd) 20.8.2.3 Extinguisher Training. Designated employees of hotel or motel occupancies shall be periodically instructed in the use of portable fire extinguishers.

(Amd) 20.8.2.4.1* A floor diagram reflecting the actual floor arrangement, exit and escape locations and room identification shall be posted in a location and manner acceptable to the AHJ on, or immediately adjacent to, every guest room door in hotels and bed and breakfast establishments.

(Amd) **20.9 Apartment Buildings and Dormitories, including Residential Group R-2.**

(Amd) **20.9.1 Application.** New and existing apartment buildings and dormitories shall comply with section 20.9 and the CSFSC.

(Add) **20.9.2.1.1 Drills in Dormitories.** Emergency egress and relocation drills shall be regularly conducted in accordance with section 10.6.

(Add) **20.9.2.1.2*** A floor diagram reflecting the actual floor arrangement, exit and escape locations and room identification shall be posted in a location and manner acceptable to the AHJ on, or immediately adjacent to, every guest room door in every resident room in dormitories.

(Add) **20.10.3 Emergency Instructions for Residents or Guests.** A floor diagram reflecting the actual floor arrangement, exit and escape locations, and room identification shall be posted in a location and manner acceptable to the AHJ on, or immediately adjacent to, every resident residential room.

(Del) **20.11 One- and Two-Family Dwellings and Manufacturing Housing.** Delete section.

(Amd) **20.12 Mercantile Occupancies, including Mercantile Group M.**

(Amd) **20.12.1 Application.** New and existing mercantile occupancies shall comply with section 20.12 and the CSFSC.

(Add) **20.12.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Add) **20.12.2.3 Covered Mall Buildings.** Covered mall buildings shall comply with the provisions of sections 20.12.2.3.1 through 20.12.2.3.3.

(Add) **20.12.2.3.1 Lease Plan.** A lease plan shall be prepared for each covered mall building and shall include the following information:

- (1) Each occupancy, including the identification of any tenants.
- (2) Exits from each tenant space.
- (3) Fire protection features, including the following:
 - (a) Fire department connections.
 - (b) Fire command center.
 - (c) Smoke management system controls.
 - (d) Elevators and elevator controls.
 - (e) Hose valves outlets.
 - (f) Sprinkler and standpipe control valves.
 - (g) Automatic fire-extinguishing system areas.
 - (h) Automatic fire detector zones.
 - (i) Fire barriers.

(Add) **20.12.2.3.1.1 Approval.** The lease plan shall be submitted to the fire code official for approval, and shall be maintained on site for immediate reference by responding fire service personnel.

(Add) **20.12.2.3.1.2 Revisions.** The lease plans shall be revised annually or as often as necessary to keep them current, whichever is earlier.

(Add) **20.12.2.3.2 Tenant Identification.** Each occupied tenant space, except anchor stores, provided with a secondary exit to the exterior or exit corridor shall be

provided with tenant identification by business name or address. Letters and numbers shall be posted on the corridor side of the door, be plainly legible and shall contrast with their background.

(Add) **20.12.2.3.3 Maintenance.** Vacant tenant spaces shall be:

- (1) Kept free from the storage of any materials.
- (2) Separated from the remainder of the building by partitions of at least 12.7 mm thick (0.5 in.) gypsum board or an approved equivalent to the underside of the ceiling of the adjoining tenant spaces.
- (3) Without doors or other access openings other than one door that shall be kept key locked in the closed position except during that time when opened for inspection.
- (4) Kept free from combustible waste and be broom-swept clean.

(Add) **20.12.2.4 Storage and Display of Consumer Fireworks.** The display and storage of consumer fireworks at retail establishments shall be in accordance with the provisions of the 2006 edition of NFPA 1124, *Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles*, except as modified in sections 20.12.2.4.1 through 20.12.2.4.3.

(Add) **20.12.2.4.1** Consumer fireworks shall be under the visual supervision of a store employee or other responsible party while the store is open to the public.

(Add) **20.12.2.4.2** Consumer fireworks shall not be displayed or stored within 1.5 m (5 ft) of any entrance or exit of any enclosed building or structure.

(Add) **20.12.2.4.3** The provisions of NFPA 1124 are amended for use in Connecticut as follows:

(Amd) **7.5.3 Storage Rooms.** Storage rooms containing consumer fireworks, regardless of size, in a new or existing permanent store shall be protected with an automatic sprinkler system installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, or separated from the retail sales area by a fire barrier having a fire resistance rating of not less than 1 hour. The quantity of fireworks permitted in storage shall not exceed 3,600 cubic feet, including packaging. Such storage shall be segregated into areas of 1,200 cubic feet or less, separated by a minimum of 4 feet of clear space.

(Amd) **20.13 Business Occupancies, including Business Group B.**

(Amd) **20.13.1 Application.** New and existing business occupancies shall comply with section 20.13 and the CSFSC.

(Add) **20.13.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Amd) **20.14 Industrial Occupancies, including Factory Industrial Groups F-1 and F-2.**

(Amd) **20.14.1 Application.** New and existing industrial occupancies shall comply with section 20.14 and the CSFSC.

(Add) **20.14.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Add) **20.14.2 Group H-5 Occupancies.** Group H-5 occupancies shall comply with the requirements of sections 20.14.2.1 through 20.14.2.4 and the CSFSC.

(Add) **20.14.2.1 Plans and Diagrams.** Plans and diagrams shall be maintained in approved locations indicating the approximate plan for each area, the amount and type of hazardous production materials (HPM) stored, handled and used, locations of shutoff valves for HPM supply piping, emergency telephone locations and locations of exits.

(Add) **20.14.2.2 Plan Updating.** The plans and diagrams required by section 20.14.2.1 shall be maintained up to date and the fire code official and fire department shall be informed of all major changes.

(Add) **20.14.2.3 Emergency Response Team.** Responsible persons shall be designated as the on-site emergency response team and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses, identifying locations where HPM is stored, handled and used, and be familiar with the chemical nature of such material. An adequate number of personnel for each work shift shall be designated.

(Add) **20.14.2.4 Emergency Drills.** Emergency drills of the on-site emergency response team shall be conducted on a regular basis but not less than once every three months. Records of drills conducted shall be maintained.

(Amd) **20.15 Storage Occupancies, including Storage Groups S-1 and S-2.**

(Amd) **20.15.1 Application.** New and existing storage occupancies shall comply with section 20.15 and the CSFSC.

(Amd) **20.15.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Amd) **20.16.1.1** New and existing special structures and high-rise buildings shall comply with the CSFSC.

(Add) **20.16.1.1.1 Permits.** Permits, if required, shall comply with section 1.12.19.

(Del) **20.17 Historical Buildings.** Delete section.

Chapter 21

Airports and Heliports

(Amd) **21.1 Hangars.** The protection of aircraft hangars from fire shall comply with this section; NFPA 409, *Standard on Aircraft Hangars*; NFPA 410, *Standard on Aircraft Maintenance*; and the CSFSC.

(Amd) **21.2.3.1*** Airport terminal buildings shall be constructed in accordance with the CSFSC.

(Amd) **21.2.3.2*** Interior finish shall be limited to that permitted in Class A places of assembly.

(Amd) **21.2.5*** In addition to exit signage requirements specified in the CSFSC, doors serving as exits that discharge onto an airport ramp and are provided solely for the purposes of meeting emergency egress requirements from public areas shall be placarded "Emergency Exit Only" in letters at least 2 in. (50 mm) high.

(Amd) **21.2.6.3 Fire Alarm and Communications Systems.** A fire alarm and communications system shall be installed as required by the CSFSC.

Chapter 22

Automobile Wrecking Yards

(Del) **22.8 Burning Operations.** Delete section.

Chapter 25

Grandstands and Bleachers, Folding and

Telescopic Seating, Tents, and Membrane Structures

(Amd) **25.1.1** The location, protection, and maintenance of grandstands and bleachers, folding and telescopic seating, tents and membrane structures shall meet the requirements of this chapter. Seating facilities located in the open air or within enclosed or semi-enclosed structures, such as tents, membrane structures and stadium complexes, shall comply with the CSFSC, the provisions of section 29-140 of the Connecticut General Statutes, the regulations adopted pursuant to section 29-140 and Chapter 25.

(Amd) **25.1.5.1** The applicable provisions of the CSFSC that pertain to fire hazards shall govern in tents and membrane structures.

(Amd) **25.1.5.5** The use of fireworks, sparklers, fountains or unauthorized open flames shall be prohibited in any tent or temporary membrane structure.

(Amd) **25.1.10.2.3** Heaters used inside a tent or temporary membrane structure shall be approved by the AHJ.

(Amd) **25.2.2.1** All tent fabric shall be flame resistant in accordance with the CSFSC.

(Add) **25.5.3.1.1** The requirements of section 25.5.3 do not apply to air-supported and air-inflated structures as defined in the Connecticut Mechanical Amusement Ride and Device Regulations, adopted under authority of section 29-136 of the Connecticut General Statutes.

(Amd) **25.5.1.1 Use of Membrane Roofs.** Membrane roofs shall be used in accordance with the following:

- (1) Membrane materials shall not be used where fire resistance ratings are required for walls or roofs.
- (2) Where every part of the roof, including the roof membrane, is not less than 240 in. (6100 mm) above any floor, balcony, or gallery, a noncombustible membrane shall be permitted to be used as the roof in any type of construction as permitted by the SBC.
- (3) With approval of the AHJ, membrane materials shall be permitted to be used where every part of the roof membrane is sufficiently above every significant fire potential such that the imposed temperature cannot exceed the capability of the membrane, including seams, to maintain its structural integrity.

(Amd) **25.5.1.5.1** All membrane structure fabric shall be flame resistant in accordance with the CSFSC.

(Del) **25.5.2.3** Delete section.

(Del) **25.5.2.4** Delete section.

(Del) **25.6.4.3** Delete section.

(Del) **25.6.4.4** Delete section.

(Del) **Chapter 26 Laboratories Using Chemicals.** Delete Chapter 26 in its entirety and replace with the following:

Chapter 26

Laboratories Using Chemicals

(Add) **26.1** The handling or storage of chemicals in laboratory buildings, laboratory units and laboratory work areas shall comply with the requirements of the Connecticut Hazardous Chemicals Code.

(Del) **Chapter 27 Manufactured Home and Recreational Vehicle Sites.** Delete chapter.

Chapter 28

Marinas and Boatyards

(Amd) **28.1.1** The operation of marinas, boatyards, yacht clubs, boat condominiums, docking facilities associated with residential condominiums, multiple-docking facilities at multiple-family residences, and all associated piers, docks and floats shall comply with NFPA 303, *Fire Protection Standard for Marinas and Boatyards*, and Section 28.1.

Chapter 29

Parking Garages

(Amd) **29.1.1** The protection of new and existing parking garages as well as the control of hazards in open parking structures, enclosed parking structures and basement and underground parking structures shall comply with the CSFSC, NFPA 88A, *Standard for Parking Structures*, and this chapter.

(Del) **Chapter 30 Motor Fuel Dispensing and Repair Garages.** Delete Chapter 30 in its entirety and replace with the following:

Chapter 30

Motor Fuel Dispensing Facilities and Repair Garages

(Add) **30.1 Motor Fuel Dispensing Facilities.** Motor fuel dispensing facilities shall comply with the provisions of the CSFSC, SBC and the Connecticut Flammable and Combustible Liquids Code.

(Add) **30.2 Repair Garages.** Repair garages shall comply with the provisions of the CSFSC, SBC and the Connecticut Flammable and Combustible Liquids Code.

(Del) **Chapter 42 Refueling.** Delete Chapter 42 in its entirety and replace with the following:

Chapter 42

Refueling

(Add) **42.1 General.** The refueling of automotive vehicles, aircraft, and marine vessels shall comply with the provisions of the CSFSC, SBC and Connecticut Flammable and Combustible Liquids Code.

(Del) **Chapter 43 Spraying, Dipping, and Coating Using Flammable or Combustible Materials.** Delete Chapter 43 in its entirety and replace with the following:

Chapter 43

Spraying, Dipping, and Coating Using Flammable or Combustible Materials

(Add) **43.1** Operations involving the spray application of flammable and combustible materials shall comply with the provisions of the CSFSC, SBC and Connecticut Flammable and Combustible Liquids Code.

Chapter 50

Commercial Cooking Equipment

(Amd) **50.1.1*** The operation, inspection and maintenance of commercial cooking equipment having a commercial kitchen exhaust hood as required elsewhere in this code shall comply with this chapter. This chapter shall not apply to Type II kitchen exhaust hoods as defined by the International Mechanical Code®.

(Del) **50.1.2** Delete section.

(Del) **50.1.3** Delete section.

(Del) **50.1.4*** Delete section.

(Del) **50.2.1** Delete section.

(Del) **50.2.6** Delete section.

(Del) **50.2.9** Delete section.

(Del) **50.2.10* Clearance.** Delete section.

(Del) **50.4.1** Delete section.

(Del) **50.4.2 Permits.** Delete section.

(Del) **50.4.3 General Requirements.** Delete section.

(Del) **50.4.4.3*** Delete section.

(Del) **50.4.4.4** Delete section.

(Del) **50.4.4.5** Delete section.

(Del) **50.4.4.7** Delete section.

(Del) **50.4.4.8 Fixed Baffle Hoods with Water Wash.** Delete section.

(Del) **50.4.4.9** Delete section.

(Del) **50.4.4.10 Water Valve Supervision.** Delete section.

(Del) **50.4.5 Simultaneous Operation.** Delete section.

(Del) **50.4.6 Fuel Shutoff.** Delete section.

(Del) **50.4.7.2** Delete section.

(Del) **50.4.7.3** Delete section.

(Del) **50.4.7.4** Delete section.

(Del) **50.4.7.5** Delete section.

(Del) **50.4.7.6** Delete section.

(Del) **50.4.8 System Annunciation.** Delete section.

(Del) **50.4.9 System Supervision.** Delete section.

(Del) **50.4.10 Special Design and Application.** Delete section.

(Del) **50.4.11 Review and Certification.** Delete section.

(Del) **Chapter 60 Hazardous Materials.** Delete Chapter 60 in its entirety and replace with the following:

Chapter 60

Hazardous Materials

(Amd) **60.1*** Occupancies containing high hazard contents shall comply with the provisions of the CSFSC and the SBC.

(Del) **Chapter 61 Aerosol Products.** Delete Chapter 61 in its entirety and replace with the following:

Chapter 61

Aerosol Products

(Add) **61.1 General.** The manufacture, storage, use, handling and display of aerosol products shall comply with the provisions of the CSFSC, SBC and Connecticut Flammable and Combustible Liquids Code.

(Del) **Chapter 62 Combustible Fibers.** Delete chapter.

(Del) **Chapter 63 Compressed Gases and Cryogenic Fluids.** Delete chapter.

(Del) **Chapter 64 Corrosive Solids and Liquids.** Delete chapter.

Chapter 65

Explosives, Fireworks, and Model Rocketry

(Amd) **65.1.1** The storage, use, and handling of explosives, fireworks and model rocketry shall comply with the requirements of the Connecticut Explosives Code, the Connecticut Fireworks and Special Effects Code, the Connecticut Model Rocketry Code and this chapter.

(Amd) **65.1.2** Where the provisions of this chapter or NFPA standards referenced in this chapter conflict with the provisions of the Connecticut Explosives Code, the Connecticut Fireworks and Special Effects Code or the Connecticut Model Rocketry Code, the provisions of those codes shall apply.

(Amd) **65.2.1** The construction, handling, and use of fireworks intended solely for outdoor display as well as the general conduct and operation of the display shall comply with the requirements of the Connecticut Fireworks and Special Effects Code and NFPA 1123, *Code for Fireworks Display*.

(Amd) **65.2.2** All storage of display fireworks shall comply with the Connecticut Fireworks and Special Effects Code and NFPA 1124, *Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles*.

(Amd) **65.5.1** The manufacture, transportation, or storage of fireworks shall comply with the Connecticut Fireworks and Special Effects Code and NFPA 1124, *Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles*.

(Amd) **65.6 Model Rocketry.** The design, construction, limitations of propellant mass and power, and reliability of model rocket motors and model rocket motor reloading kits and their components produced commercially for sale to or use by the public for purposes of education, recreation, and sporting competition, shall comply with the Connecticut Model Rocketry Code and NFPA 1122, *Code for Model Rocketry*.

(Amd) **65.7.1** The manufacture of model rocket motors designed, sold, and used for the purpose of propelling recoverable aero models shall comply with the Connecticut Model Rocketry Code and NFPA 1125, *Code for the Manufacture of Model Rocket and High Power Rocket Motors*.

(Amd) **65.8.1** The design, construction, limitations of propellant mass and power, and reliability of all high-power rocket motors and motor components produced commercially for sale to or use by the certified user for education, recreation, and sporting competition shall comply with the Connecticut Model Rocketry Code and NFPA 1127, *Code for High Power Rocketry*.

(Amd) **65.9.1** The manufacture, transportation, storage, sale, and use of explosive materials shall comply with the Connecticut Explosives Code, NFPA 495, *Explosive Materials Code*, and NFPA 498, *Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives*.

(Amd) **65.10.1** The storage of ammonium nitrate in the form of crystals, flakes, grains, or prills including fertilizer grade, dynamite grade, nitrous oxide grade, technical grade and other mixtures containing 60 percent or more by weight of ammonium nitrate shall comply with the Connecticut Explosives Code and NFPA 490, *Code for the Storage of Ammonium Nitrate*.

(Amd) **65.11.1.5*** Retail sales of consumer fireworks shall be limited to mercantile occupancies as defined in the CSFSC.

(Amd) **65.11.2.5 Noncomplying Fireworks.** The retail sales of fireworks that do not comply with the regulations of the U.S. Consumer Product Safety Commission as set forth in 16 CFR 1500 and 1507, the regulations of the U.S. Department of Transportation as set forth in Title 49 CFR 100 to 178 and sections 29-356 and 29-357 of the Connecticut General Statutes, including provisions concerning their related storage and display for sale, shall be prohibited.

(Amd) **65.11.2.6 Life Safety.** Any building or structure used for the retail sales of consumer fireworks, including their related storage, shall comply with the CSFSC, for mercantile occupancies, except as provided in this chapter.

(Amd) **65.11.4.4.2** Any other openings or penetrations in the fire barrier wall shall be protected in accordance with the CSFSC.

(Amd) **65.11.5.3.1** A fire alarm system shall be provided as required by the CSFSC.

(Amd) **65.11.8.1 General.** Means of egress in consumer fireworks retail sales facilities shall comply with the applicable requirements of the CSFSC, as modified by section 65.11.8.

(Amd) **65.11.8.1.1** Means of egress in stores and bulk merchandising retail buildings where the retail sales of consumer fireworks are conducted shall comply with the CSFSC, unless otherwise specified in section 65.11.8.

(Amd) **65.11.8.1.2*** Means of egress in tents and membrane structures used for consumer fireworks retail sales shall comply with the CSFSC, and NFPA 102, *Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures*, as modified by section 65.11.8.

(Amd) **65.11.8.3.1** The minimum number of exits provided from the retail sales area shall be not less than three or as determined in accordance with the CSFSC, whichever number is greater.

(Amd) **65.11.8.6.4** For other than temporary consumer fireworks retail sales stands where the interior is not accessible to the public, every egress door that has a latching device shall be provided with panic hardware complying with the CSFSC.

(Amd) **65.11.9.1.1** Exits shall be marked by an approved exit sign in accordance with the CSFSC.

(Amd) **65.11.9.2.1** The means of egress, including the exit discharge, shall be illuminated whenever the facility is occupied in accordance with the CSFSC.

(Amd) **65.11.9.2.2** Emergency lighting shall be provided for consumer fireworks retail sales facilities and stores and shall comply with the CSFSC.

(Del) **Chapter 66 Flammable and Combustible Liquids.** Delete Chapter 66 in its entirety and replace with the following:

Chapter 66

Flammable and Combustible Liquids

(Add) **66.1** The storage, use, and handling of flammable and combustible liquids, including waste liquids, shall comply with the provisions of the CSFSC, SBC and Connecticut Flammable and Combustible Liquids Code.

(Del) **Chapter 67 Flammable Solids.** Delete chapter.

(Del) **Chapter 68 Highly Toxic and Toxic Solids and Liquids.** Delete chapter.

(Del) **Chapter 69 Liquefied Petroleum Gases and Liquefied Natural Gases.** Delete Chapter 69 in its entirety and replace with the following:

Chapter 69

Liquefied Petroleum Gases and Liquefied Natural Gases

(Add) **69.1** The storage, use, and handling of liquefied petroleum gases (LP-Gas) shall comply with the CSFSC, SBC and Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code.

(Del) **Chapter 70 Oxidizers and Organic Peroxides.** Delete chapter.

(Del) **Chapter 71 Pyrophoric Solids and Liquids.** Delete chapter.

(Del) **Chapter 72 Unstable (Reactive) Solids and Liquids.** Delete chapter.

(Del) **Chapter 73 Water-Reactive Solids and Liquids.** Delete chapter.

(Adopted effective July 1, 2010)

Sec. 29-291a-10. Enforcement by citations

The following chapters or sections of this code may be enforced through the use of the citation process pursuant to section 29-291c of the Connecticut General Statutes.

Chapter /Section

Subject Matter

Section 1.12

Operating without a permit as prescribed by law

Section 10.15.9

Provisions for Naturally Cut (Christmas) Trees

Sections 10.8, 13.1.7

Failure to maintain or the shutting off of any

fire protection or fire warning system required

by the Connecticut State Fire Safety Code

Blocked, insufficient or impeded egress

Sections 14.4.1,

14.4.3, 14.4.3.1

Chapter 16

Safeguards During Building Construction,

Alteration, and Demolition Operations

Section

20.1.4.8.3

Exceeding the established occupancy limit-

assembly occupancies

Section 20.12.2.4

Storage and Display of Consumer Fireworks

Chapter 41

Hot Work Operations

Section 50.5

Procedures for Use and Maintenance of Com-

mercial Cooking Equipment

Section 65.11.1.5

Retail Sales of Consumer Fireworks limited to

mercantile occupancies

(Adopted effective July 1, 2010)

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 Alternative compliance 29-292-15e
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 Connecticut amendments 29-292-17e

**Part IV
 Existing Buildings/Occupancies**

Application 29-292-18e
 Changes of use 29-292-19e

Adopted standard 29-292-20e
Connecticut amendments 29-292-21e

Part V
Maintenance and Operational Issues

Repealed 29-292-22e—29-292-25e

Connecticut State Fire Safety Code

Secs. 29-292-1—29-292-1a.

Repealed, October 16, 1989.

Sec. 29-292-1b.

Repealed, June 15, 1994.

Sec. 29-292-1c.

Repealed, May 1, 1999.

Secs. 29-292-1d—29-292-9d.

Repealed, December 31, 2005.

Part I

Administrative

Sec. 29-292-1e. The Connecticut State Fire Safety Code: Title and applicability

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

Sec. 29-292-2e. Administration of the code

Sections 29-292-1e to 29-292-25e, inclusive, of the Regulations of Connecticut State Agencies shall be administered as provided in Chapter 541 of the Connecticut General Statutes.

(Adopted effective December 31, 2005)

Sec. 29-292-3e. Authority having jurisdiction

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

Sec. 29-292-4e. Plan submittal and review

Detailed plans and specifications for new structures and additions, renovations or alterations to existing structures shall be submitted by the applicant to the local fire marshal having jurisdiction to demonstrate compliance with section 29-263 of the Connecticut General Statutes.

(Adopted effective December 31, 2005)

Sec. 29-292-5e. Building permit approval

The local fire marshal shall provide to the local building official certification in writing prior to the issuance of a building permit that the construction documents for any building, structure or use subject to the requirements of this code are in substantial compliance with the requirements of this code. Because of the 30-day time limit imposed by section 29-263 of the Connecticut General Statutes, the fire marshal shall notify the building official of the degree of compliance within that time period.

(Adopted effective December 31, 2005)

Sec. 29-292-6e. Variations or exemptions

In accordance with section 29-296 of the Connecticut General Statutes, the State Fire Marshal may modify the requirements of sections 29-292-1e to 29-292-25e, inclusive, of the Regulations

of Connecticut State Agencies and their adopted standards where the State Fire Marshal deems that strict compliance would entail practical difficulty or unnecessary hardship, or is otherwise adjudged unwarranted, provided any such variation or exemption or approved equivalent or alternative compliance shall, in the opinion of the State Fire Marshal, secure the public safety.

(Adopted effective December 31, 2005)

Sec. 29-292-7e. Inspections

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

Sec. 29-292-8e. Acceptance of building official reports

The State Fire Marshal or local fire marshal may accept the reports of the building official concerning a code compliance review or inspection in lieu of conducting the review or inspection himself or herself.

(Adopted effective December 31, 2005)

Sec. 29-292-9e. Certificate of occupancy approval

The local fire marshal shall provide to the local building official certification in writing that prior to the occupancy of any building, structure or use subject to the requirements of this code, such building, structure or use is in substantial compliance with the requirements of this code.

(Adopted effective December 31, 2005)

Sec. 29-292-10e. Application

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

Sec. 29-292-11e. Changes of occupancy or use

In any building or structure, whether or not a physical alteration is needed, a change from one occupancy classification to another shall be permitted only where such a structure, building or portion thereof conforms with the requirements of this code that apply to new construction for the proposed new use, except that a change of tenants or ownership shall not be construed to be a change of occupancy classification where the nature of use and assigned occupancy classification remain the same.

(Adopted effective December 31, 2005)

Part II

General

Sec. 29-292-12e. Application

The provisions of this section shall apply to all occupancies and uses located within a building or structure.

When a requirement differs between this code and a referenced document, the requirement of this code shall apply.

(Adopted effective December 31, 2005)

Sec. 29-292-13e. Referenced publications

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

Part III**New Construction, Renovations, or Change of Use****Sec. 29-292-14e. Application**

The provisions of this section shall apply to all buildings or structures, or portions thereof, constructed, renovated, altered or undergoing a change of occupancy.

Any references within the body of this code to the International Building Code®, International Mechanical Code® and International Residential Code® shall be considered references to the State Building Code.

Any references within the body of this code to the International Electrical Code™ shall be considered references to the National Electrical Code®, NFPA 70.

(Adopted effective December 31, 2005)

Sec. 29-292-15e. Alternative compliance

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

Sec. 29-292-16e. Adopted standard

The following standard promulgated by the International Code Council, Inc., is hereby adopted as part of sections 29-292-14e to 29-292-17e, inclusive, of the Regulations of Connecticut State Agencies:

International Fire Code® of the International Code Council, Inc., 2003 edition except as amended, altered or deleted and by the addition of certain provisions as indicated in section 29-292-17e of the Regulations of Connecticut State Agencies.

This standard is available from the International Code Council, Inc., 4051 W. Flossmoor Road, Country Club Hills, IL 60478-5795.

(Adopted effective December 31, 2005)

Sec. 29-292-17e. Connecticut amendments

The adopted International Fire Code® is amended to meet the needs of the State of Connecticut as follows:

Note:

A section or subsection in the Connecticut Amendments preceded by “Amd” indicates the substitution of this provision in the adopted referenced standard, the International Fire Code®, 2003 edition.

A section or subsection in the Connecticut Amendments preceded by “Del” indicates the deletion of this provision in the adopted referenced standard.

A section or subsection in the Connecticut Amendments preceded by “Add” indicates the addition of this provision in the adopted referenced standard.

(Adopted effective December 31, 2005; amended October 2, 2012)

CHAPTER 1**ADMINISTRATION**

(Del) **101.1 Title.** Delete section.

(Del) **101.2 Scope.** Delete section.

(Del) **101.2.1 Appendices.** Delete section.

(Del) **101.3 Intent.** Delete section.

(Del) **101.4 Severability.** Delete section.

(Del) **101.5 Validity.** Delete section.

(Del) **102.1 Construction and design provisions.** Delete section.

(Del) **102.2 Administrative, operational and maintenance provisions.** Delete section.

(Del) **102.3 Change of use or occupancy.** Delete section.

(Del) **102.4 Application of building code.** Delete section.

(Del) **102.5 Historical buildings.** Delete section.

(Amd) **102.6 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 45 and Part II of this code, and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

(Del) **102.7 Subjects not regulated by this code.** Delete section.

(Del) **102.8 Matters not provided for.** Delete section.

(Del) **SECTION 103 DEPARTMENT OF FIRE PREVENTION.** Delete section.

(Del) **104.1 General.** Delete section.

(Del) **104.2 Applications and permits.** Delete section.

(Del) **104.3 Right of entry.** Delete section.

(Del) **104.4 Identification.** Delete section.

(Del) **104.5 Notices and orders.** Delete section.

(Del) **104.6 Official records.** Delete section.

(Del) **104.7.2 Technical assistance.** Delete section.

(Del) **104.8 Modifications.** Delete section.

(Del) **104.10 Fire investigations.** Delete section.

(Del) **104.11 Authority at fires and other emergencies.** Delete section.

(Del) **SECTION 105 PERMITS.** Delete section.

(Del) **Section 106 inspections.** Delete section.

(Del) **SECTION 107 MAINTENANCE.** Delete section.

(Del) **SECTION 108 BOARD OF APPEALS.** Delete section.

(Del) **SECTION 109 VIOLATIONS.** Delete section.

(Del) **SECTION 110 UNSAFE BUILDINGS.** Delete section.

(Del) **SECTION 111 STOP WORK ORDERS.** Delete section.

CHAPTER 2 DEFINITIONS

SECTION 202 GENERAL DEFINITIONS

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **PERSONAL CARE SERVICE.** The care of residents who do not require chronic or convalescent medical or nursing care. Personal care involves responsibility for the safety of the resident while inside the building.

(Add) **RESIDENTIAL CARE/ASSISTED LIVING FACILITIES.** A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities.

(Add) **Self-Preservation.** The occupants are capable of responding to an emergency situation without physical assistance from staff.

(Amd) **SPECIAL AMUSEMENT BUILDING.** A special amusement building is any temporary or permanent building, structure or portion thereof that is occupied for amusement, entertainment or educational purposes and that contains a device or system that conveys passengers or provides a path of travel along, around or over a course in any direction so arranged that the means of egress path is not readily apparent due to visual or audio distractions or is intentionally confounded or is not readily available because of the nature of the attraction or mode of conveyance throughout the building or portion thereof.

Exception: Multi-level play structures that do not exceed 10 feet in height and do not have an aggregate horizontal projection in excess of 160 square feet.

CHAPTER 3 GENERAL PRECAUTIONS AGAINST FIRE

(Del) **Delete Chapter.**

(Del) **CHAPTER 4 EMERGENCY PLANNING AND PREPAREDNESS.** Delete Chapter 4 in its entirety and replace with the following:

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED UPON USE AND OCCUPANCY

(Add) **SECTION 401 GENERAL**

(Add) **401.1 Detailed use and occupancy requirements.** In addition to the occupancy and construction requirements in this code, the provisions of this chapter apply to the special uses and occupancies described within.

(Add) **401.2 Covered mall buildings.** Covered mall buildings not exceeding three floor levels at any point nor more than three stories above grade shall comply with the provisions of Section 402 of the State Building Code.

(Add) **401.3 High-rise buildings.** Buildings having occupied floors located more than 75 feet (22,860 mm) above the lowest level of fire department access shall comply with Section 403 of the State Building Code.

(Add) **401.4 Atriums.** Atriums shall comply with Section 404 of the State Building Code.

(Add) **401.5 Underground buildings.** Building spaces having a floor level used for human occupancy more than 30 feet (9144 mm) below the lowest level of exit discharge shall comply with Section 405 of the State Building Code.

(Add) **401.6 Motor-vehicle-related occupancies.** Motor-vehicle-related occupancies, including, but not limited to, parking and repair garages, shall comply with Section 406 of the State Building Code.

(Add) **401.7 Group I-2 occupancies.** Occupancies in Group I-2 shall comply with the provisions of Section 407 of the State Building Code and other applicable provisions of this code.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **401.8 Group I-3 occupancies.** Occupancies in Group I-2 shall comply with the provisions of Section 408 of the State Building Code and other applicable provisions of this code.

(Add) **401.9 Motion picture projection rooms.** Occupancies containing rooms in which ribbon-type cellulose acetate or other films are utilized in conjunction with electric arc, xenon or other light-source projection equipment that develops hazardous gases, dust or radiation shall comply with the provisions of Section 409 of the State Building Code.

(Add) **401.10 Stages and platforms.** Occupancies containing stages or platforms and similar appurtenances shall comply with the provisions of Section 410 of the State Building Code.

(Add) **401.11 Special amusement buildings.** Occupancies containing special amusement buildings shall comply with the provisions of Section 411 of the State Building Code.

(Add) **401.12 Aircraft-related occupancies.** Aircraft-related occupancies, including, but not limited to, airport traffic control towers, hangars and heliports and helistops, shall comply with Section 412 of the State Building Code.

(Add) **401.13 Combustible storage.** High-piled stock or rack storage in any occupancy shall also comply with Section 413 of the State Building Code.

(Add) **401.14 Hazardous materials & Groups H-1, H-2, H-3, H-4 and H-5.** Buildings or structures occupied for the processing, dispensing, use or storage of hazardous materials and Groups H-1, H-2, H-3, H-4 and H-5 shall also comply with Sections 414 and 415 of the State Building Code.

(Add) **401.15 Drying rooms.** A drying room or dry kiln installed within a building shall comply with Section 417 of the State Building Code.

(Add) **401.16 Group E Educational occupancies.** Buildings containing Group E educational occupancies shall comply with Section 419 of the State Building Code.

(Add) **401.17 Group B Medical occupancies.** Buildings containing Group B medical occupancies shall comply with Section 420 of the State Building Code.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

CHAPTER 5

FIRE SERVICE FEATURES

(Del) **Delete Chapter.**

CHAPTER 6

BUILDING SERVICES AND SYSTEMS

(Add) **601.1.1 Fuel gas.** The 2003 International Fuel Gas Code® is not adopted by the State of Connecticut. The installation and operation of gas equipment and piping shall comply with sections 29-329, 29-330 and 29-331 of the Connecticut General Statutes, and the regulations known as the Connecticut Gas Equipment and Piping Code adopted by the Commissioner of Public Safety under authority of section 29-329 of the Connecticut General Statutes, and the regulations known as the Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code adopted by the Commissioner of Public Safety under authority of section 29-331 of the Connecticut General Statutes. References to the International Fuel Gas Code® within the body of the model document shall be considered to be references to such statutes and regulations.

(Add) **601.1.2 Oil-burning equipment, piping and storage.** In addition to the requirements of this code, the installation of oil burners and equipment used in connection therewith, including tanks, piping, pumps, control devices and accessories shall comply with sections 29-316 and 29-317 of the Connecticut General Statutes, and the regulations known as the Connecticut Oil Burning Equipment Code adopted by the Commissioner of Public Safety under authority of section 29-317 of the Connecticut General Statutes.

(Del) **601.2** Delete section.

(Amd) **604.1 Installation.** Emergency and standby power systems shall be installed in accordance with the National Electrical Code®, NFPA 70, NFPA 110 and NFPA 111.

(Add) **607.4 Equipment regulated by statute.** All elevators, dumbwaiters, material lifts, vertical and inclined chair lifts, limited use, limited (application) access elevators and escalators, including existing systems, shall comply with regulations adopted by the Commissioner of Public Safety pursuant to chapter 538 of the Connecticut General Statutes. Where the provisions of this chapter conflict with other statutory or regulatory provisions, those requirements contained in such statutes or regulations shall prevail.

CHAPTER 7

FIRE-RESISTANCE-RATED CONSTRUCTION

(Amd) **701.1 Scope.** The requirements for and the maintenance of fire-resistance-

rated construction and the requirements for enclosing floor openings and shafts in new buildings and structures shall comply with the appropriate provisions of the State Building Code.

(Del) **SECTION 704 FLOOR OPENINGS AND SHAFTS.** Delete Section 704 in its entirety and replace with the following.

(Add) **SECTION 704 INCIDENTAL USE AREAS.**

(Add) **704.1 Incidental use areas.**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **704.1.1** Where Table 704.1 requires a fire-resistance-rated separation, the remainder of the building shall be separated from the incidental use area with a fire barrier. Where Table 704.1 permits an automatic fire-extinguishing system without a fire barrier, the incidental use area shall be separated by construction capable of resisting the passage of smoke. The partitions shall extend from the floor to the underside of the fire-resistance-rated floor/ceiling assembly or fire-resistance-rated roof/ceiling assembly or to the underside of the floor or roof deck above. Doors shall be self-closing or automatic-closing upon detection of smoke. Doors shall not have air transfer openings and shall not be undercut in excess of the clearance permitted in accordance with NFPA 80.

(Add) **Table 704.1 Incidental Use Areas**

ROOM OR AREA	SEPARATION^a
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system
Rooms with any boiler over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Parking garage (See Section 406.2 of State Building Code)	2 hours; or 1 hour and provide automatic fire-extinguishing system
Hydrogen cut-off room	1-hour fire barriers and floor/ceiling assemblies in Group B, F, H, M, S and U occupancies; 2-hour fire barriers and floor/ceiling assemblies in Group A, E, I and R occupancies
Incinerator rooms	2 hours and automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic fire-extinguishing system
Laboratories and vocational shops, not classified as Group H, located in Group E or I-2 occupancies	1 hour or provide automatic fire-extinguishing system
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Storage rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Group I-3 cells equipped with padded surfaces	1 hour
Group I-2 waste and linen collection rooms	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Stationary lead-acid battery systems having a liquid capacity of more than 100 gallons used for facility standby power, emergency power or uninterrupted power supplies	1-hour barriers and floor/ceiling assemblies in Group B, F, H, M, S and U occupancies; 2-hour fire barriers and floor/ceiling assemblies in Group A, E, I and R occupancies

For SI: 1 square foot = 0.0929m², 1 pound per square inch = 6.9 kPa, 1 British thermal unit = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L.

^a Where an automatic fire-extinguishing system is provided, it need only be provided in the incidental use room or area.

CHAPTER 8

INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

(Amd) **801.1 Scope.** The provisions of this chapter and Chapter 8 of the International Building Code shall govern furniture and furnishings, interior finishes, interior trim, decorative materials and decorative vegetation in buildings.

(Del) **804 Decorative Vegetation.** Delete section.

(Amd) **805.1.2 Flame-resistant materials.** The permissible amount of flame-resistant materials shall not exceed 10 per cent of the aggregate area of walls and ceilings.

Exception: In auditoriums of Group A, the permissible amount of flame-resistant decorative material shall not exceed 50 per cent of the aggregate area of walls and ceiling where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, and where the material is installed in accordance with Section 803.4 of the International Building Code.

(Amd) **805.2 Acceptance criteria and reports.** Where required to be flame resistant, decorative materials shall be tested by an approved agency and pass Test 1 or 2, as described in NFPA 701, or such materials shall be noncombustible. Reports of test results shall be prepared in accordance with NFPA 701 and furnished to the fire code official upon request.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **806.2 Wall and ceiling finish.** Interior wall and ceiling finishes shall be classified in accordance with Section 803 of the International Building Code. Such interior finishes shall be grouped in the following classes in accordance with their flame spread and smoke-developed index.

- Class A: Flame spread index 0-25
Smoke-developed index 0-450
- Class B: Flame spread index 26-75
Smoke-developed index 0-450
- Class C: Flame spread index 76-200
Smoke-developed index 0-450

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

CHAPTER 9

FIRE PROTECTION SYSTEMS

(Del) **901.3** Delete section.

(Del) **901.4.3** Delete section.

(Del) **901.6 Inspection, testing and maintenance.** Delete section.

(Del) **901.7 Systems out of service.** Delete section.

(Del) **901.8 Removal of or tampering with equipment.** Delete section.

(Amd) **903.1.1 Alternative protection.** In any occupancy where the character of fuel for fire is such that extinguishment or control of fire is accomplished by a type of alternative automatic extinguishing system complying with Section 904 in lieu

of an automatic sprinkler system, such alternative system shall be installed in accordance with the applicable standard and approved by the code official.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **903.2.6 Group M.** An automatic sprinkler system shall be provided as required below in Group M occupancies where one of the following conditions exists:

1. Throughout all buildings where a Group M fire area exceeds 12,000 square feet.
2. Throughout all buildings where a Group M fire area is located more than three stories above grade.
3. Throughout all buildings where the combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet.
4. Throughout stories below the level of exit discharge where such stories have an area exceeding 2,500 square feet and are used for the sale, storage or handling of combustible goods or merchandise.

(Amd) **903.2.7 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exceptions:

1. Group R-1 bed and breakfast establishments.
2. Existing buildings four stories or less in height undergoing a change of occupancy from Group R-3 to Group R-2 where each dwelling unit has either:
 - 2.1. An exit door directly to the exterior at a level of exit discharge,
 - 2.2. Direct access to an exterior stair serving a maximum of two dwelling units on the same story, or
 - 2.3. Direct access to an interior stair serving only that dwelling unit and separated from all other portions of the building with 1-hour fire-resistance-rated fire barriers.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **903.2.14 Additional statutory requirements.** Pursuant to section 29-315 of the Connecticut General Statutes, automatic fire extinguishing systems shall be installed in any building or structure to be built more than four stories tall and used for human occupancy and in other occupancies as required by the State Fire Marshal in the interest of safety because of special occupancy hazards.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **903.3.5.1.1 Limited area sprinkler systems.** Limited area sprinkler systems serving six sprinklers or less in any fire area are permitted to be connected to the domestic service where a wet automatic standpipe is not available. Limited area sprinkler systems connected to domestic water supplies shall comply with each of the following requirements:

1. Valves shall not be installed between the domestic water riser control valve and the sprinklers.

Exception to Item 1: An approved indicating control valve supervised electrically or locked or secured in the open position shall be permitted.

2. The domestic service shall be designed and installed in accordance with NFPA 13.

(Add) **903.3.5.1.3 Water authority approval.** Unless served by a private well of sufficient capacity or other approved source, domestic service shall be permitted to

provide the water supply for the automatic sprinkler system only upon written approval of the water authority supplying such domestic service.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **903.5 Testing and maintenance.** Delete section.

(Del) **903.6 Existing buildings.** Delete section.

(Del) **904.10.1 System test.** Delete section.

(Del) **904.10.2 Containers.** Delete section.

(Del) **904.10.3 System hoses.** Delete section.

(Del) **904.11.6 Operations and maintenance.** Delete section.

(Del) **905.3.4.1** Delete section.

(Del) **905.10 During construction.** Delete section.

(Del) **905.11** Delete section.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **906.1** Portable fire extinguishers shall be installed and maintained as required in the Connecticut State Fire Prevention Code and as required in Section 906.1.1.

(Add) **906.1.1 Group R-1 bed and breakfast establishments.** In Group R-1 bed and breakfast establishments, portable fire extinguishers shall only be required to be located in kitchens. All portable fire extinguishers shall be installed and maintained in accordance with NFPA 10. A listed residential range top extinguisher unit or an approved commercial kitchen hood with a listed, approved automatic fire suppression system shall be permitted to be installed in lieu of the installation of a portable fire extinguisher in the kitchen.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **907.2.1.1 Emergency voice/alarm communications.** Activation of the fire alarm in Group A occupancies with an occupant load of 300 or more and Group A-1 theaters with more than one viewing room shall initiate a signal using an emergency voice/alarm communications system in accordance with NFPA 72.

Exception: Where approved, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed 3 minutes, for the sole purpose of allowing a live voice announcement from an approved, constantly attended location.

(Amd) **907.2.7 Group M.** A manual fire alarm system shall be installed in Group M occupancies, other than covered mall buildings complying with Section 401.2, when any of the following occurs:

1. There is an occupant load of 500 or more persons;
2. This is an occupant load of more than 100 persons above or below the lowest level of exit discharge; or
3. There is a Group M occupancy that occupies more than three stories, or portions thereof, for sales purposes.

Exception: A single manual fire alarm box in an approved location shall be permitted if the building is equipped throughout with an automatic sprinkler system and the alarm notification appliances will activate upon sprinkler water flow.

(Amd) **907.2.8.2 Automatic fire alarm system.** An automatic fire alarm system shall be installed throughout all interior corridors serving guest rooms.

Exceptions:

1. An automatic fire detection system is not required in buildings that do not have interior corridors serving guest rooms and each guest room has a means of egress door opening directly to an exterior exit access that leads directly to an exit.
2. An automatic fire detection system is not required in Group R-1 bed and breakfast establishments (See Section 907.2.10.1.1.1).

(Amd) **907.2.9 Group R-2.** A manual fire alarm system shall be installed in Group R-2 occupancies where:

1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge;
2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit; or
3. The building contains more than 11 dwelling units or sleeping units.

Exceptions:

1. A fire alarm system is not required in buildings not over two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, exit court or yard.
2. Manual fire alarm boxes are not required throughout the building when the following conditions are met:
 - 2.1 The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2,
 - 2.2 The notification appliances will activate upon sprinkler flow, and
 - 2.3 At least one manual fire alarm box is installed at an approved location.
3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units or sleeping units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that dwelling units or sleeping units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1022.6, Exception 4.

(Add) **907.2.10.1.1.1 Group R-1 bed and breakfast establishments.** An approved household fire warning system in accordance with the requirements of NFPA 72®, consisting of a control unit with smoke detectors, a manual fire alarm box on each floor and occupant notification shall be installed in all Group R-1 bed and breakfast establishments. A heat detector shall be installed in the kitchen.

(Add) **907.2.10.1.2.1 Group R-4.** In Group R-4 occupancies, single- or multiple-station smoke alarms shall be installed in living rooms, dens, day rooms and similar spaces in addition to the locations required by Section 907.2.10.1.2.

(Add) **907.2.10.1.2.2 Alterations and additions.** When alterations or additions requiring a permit occur in Group R-2, R-3 and R-4 occupancies, or when one or more sleeping rooms are added or created in existing dwelling units, the entire dwelling unit shall be provided with smoke alarms located as required for new dwellings. Such smoke alarms within existing spaces may be battery operated and are not required to be dual powered or interconnected unless other remodeling considerations require removal of wall and ceiling coverings which would facilitate concealed interconnected wiring.

(Add) **907.2.10.1.4 Day care and child care occupancies.** Single- or multiple-station smoke alarms shall be installed and maintained in all day care and child care occupancies in the following locations:

1. In each story in front of doors to the stairways;
2. In the corridors of all floors occupied by the day care or child care occupancy; and
3. In lounges, recreation areas and sleeping rooms in the day care or child care occupancy.

Exception: Day care or child care occupancies housed in one room.

(Add) **907.9.3 Emergency forces notification.** Emergency forces notification shall be provided to alert the municipal fire department in buildings with occupancies in Group E, Group I-2, Group I-3, Group I-4, Group R-2, Group M or Group B medical and dental occupancies (See Section 420 of the State Building Code).

(Add) **907.9.3.1 Alarm transmission.** Where required by Section 907.9.3, the fire alarm system shall be arranged to automatically transmit the alarm to the municipal fire department via any of the following means in accordance with NFPA 72:

1. Auxiliary alarm system;
2. Central station connection;
3. Proprietary system; or
4. Remote station connection.

(Amd) **907.16 Automatic telephone-dialing devices.** Automatic telephone-dialing devices shall comply with the requirements of subsection (c) of section 28-25b of the Connecticut General Statutes.

(Del) **907.20 Inspection, testing and maintenance.** Delete section.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **909.21 Maintenance.** Delete section.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **912.2.2 Existing buildings.** Delete section.

(Del) **912.6 Inspection, testing and maintenance.** Delete section.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **913.5.2 Generator sets.** Delete section.

(Del) **913.5.3 Transfer switches.** Delete section.

(Del) **913.5.4 Pump room environmental conditions.** Delete section.

(Add) **SECTION 914 CARBON MONOXIDE DETECTORS**

(Add) **914.1 Carbon monoxide detectors.** Carbon monoxide detectors shall be installed and maintained in Group R-3 and R-4 occupancies and in Group R-1 bed and breakfast establishments. Such detectors shall be located outside of each sleeping area in the immediate vicinity of the sleeping rooms. When more than one carbon monoxide detector is required to be installed within a Group R-1 bed and breakfast establishment, the alarm devices shall be interconnected in such a manner that the actuation of one carbon monoxide detector will activate all of the carbon monoxide detectors in the occupancy. When more than one carbon monoxide detector is required to be installed in Groups R-3 or R-4 the alarm devices shall be interconnected in such a manner that the actuation of one carbon monoxide detector will activate all of the carbon monoxide detectors in the individual unit. The alarm shall be clearly audible in all bedrooms or sleeping rooms over background noise levels with all intervening doors closed. All carbon monoxide detectors shall be listed and shall be installed in accordance with their listing and the manufacturer's installation instructions.

Exception: Carbon monoxide detectors shall not be required in occupancies or dwelling units not containing a fuel-burning appliance, fireplace or attached garage.

(Add) **914.2 Power source.** In new construction, the required carbon monoxide detectors shall be permanently installed and shall receive their primary power from the building wiring when such wiring is served from a commercial source. When primary power from the building wiring is interrupted, they shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Carbon monoxide detectors shall be permitted to be battery operated when installed in buildings without commercial power or in buildings that undergo alterations or additions regulated by Section 914.3.

(Amd) **914.3 Alterations and additions.** When alterations or additions requiring a permit occur in buildings with Group R-3 and R-4 occupancies and to Group R-1 bed and breakfast establishments, or when one or more sleeping rooms are added or created in such occupancies, the entire occupancy shall be provided with carbon monoxide detectors located as required for new construction. The carbon monoxide detectors shall have a power source in accordance with Section 914.2.

Exceptions:

1. The carbon monoxide detectors may be battery operated or plug-in and are not required to be interconnected when other remodeling considerations do not require the removal of the appropriate wall or ceiling coverings to facilitate concealed interconnected wiring.
2. Alterations to the exterior surfaces of existing buildings including, but not limited to, re-roofing, re-siding, window replacement and the construction of decks without roofs, are exempt from the requirements of this section.
3. Carbon monoxide detectors shall not be required in buildings not containing a fuel-burning appliance, fireplace or attached garage.

(Add) **SECTION 915 FIRE COMMAND CENTER**

(Add) **915.1 Features.** Where required by other sections of this code, a fire command center for fire department operations shall be provided. The location and accessibility of the fire command center shall be separated from the remainder of the building by not less than a 1-hour fire-resistance-rated fire barrier. The room shall be a minimum of 96 square feet (9 m²) with a minimum dimension of 8 feet (2438 mm).

A layout of the fire command center and all features required by the section to be contained therein shall be submitted for approval prior to installation. The fire command center shall comply with NFPA 72® and shall contain the following features:

1. The emergency voice/alarm communication system unit.
2. The fire department communications unit.
3. Fire detection and alarm system annunciator unit.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-handling systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighting equipment and fire department access.
13. Worktable.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.

CHAPTER 10

MEANS OF EGRESS

(Amd) **1001.1 General.** Buildings or portions thereof shall be provided with a means of egress system as required by this chapter. The provisions of this chapter shall control the design, construction and arrangement of means of egress components required to provide an approved means of egress from structures and portions thereof.

Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the International Residential Code® as adopted by the State Building Code. These buildings are not subject to code compliance enforcement by the fire marshal.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) Table 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

OCCUPANCY	FLOOR AREA IN SQ. FT. PER OCCUPANT
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (chairs only – not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	
	7 net
Business areas	100 gross
Courtrooms – other than fixed seating areas	40 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and vocational room areas	50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross

Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Accessory storage areas, mechanical equipment rooms	300 gross
Warehouses	500 gross

For SI; 1 square foot = 0.0929 m²

(Amd) **TABLE 1005.1 EGRESS WIDTH PER OCCUPANT SERVED**

OCCUPANCY	WITHOUT SPRINKLER SYSTEM		WITH SPRINKLER SYSTEM ^a	
	Stairways (inches per occupant)	Other egress components (inches per occupant)	Stairways (inches per occupant)	Other egress components (inches per occupant)
Occupancies other than those listed below	0.3	0.2	0.3	0.2
R-4	NA	NA	0.4	0.2
I-2, R-1 ^b , R-2, R-3	NA	NA	0.3	0.2
Group H	NA	NA	0.7	0.4

N/A = not applicable.

^a Building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

^b Except Group R-1 bed and breakfast establishments.

(Add) **1005.1.1 Balanced egress capacity.**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **1006.1 Illumination required.** The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

Exceptions:

1. Occupancies in Group U.
2. Aisle accessways in Group A.
3. Within dwelling units and sleeping units in Groups R-1, R-2 and R-3.
4. Within sleeping units of Group I occupancies.
5. Continuous illumination of the means of egress in Group R-1 bed and breakfast establishments shall not be required when illumination of the means of egress is initiated upon initiation of a fire alarm.

(Add) **1006.2.1 Arrangement of illumination.** Required illumination shall be arranged so that the failure of any single lamp does not result in an illumination level of less than 0.2 foot-candle at the floor level.

(Amd) **1006.3 Illumination emergency power.** The power supply for means of egress illumination shall normally be provided by the premises' electrical supply. In

the event of power supply failure, an emergency electrical system shall automatically illuminate the following areas:

1. Exit access corridors, passageways and aisles in rooms and spaces which require two or more means of egress.
2. Exit access corridors and exit stairways located in buildings required to have two or more exits.
3. Exterior egress components at other than the level of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.
4. Interior exit discharge elements, as permitted in Section 1023.1, in buildings required to have two or more exits.
5. The portion of the exterior exit discharge immediately adjacent to exit discharge doorways in buildings required to have two or more exits.
6. Means of egress lighting in Group R-1 bed and breakfast establishments.
7. The egress side of access controlled egress doors in accordance with Section 1008.1.3.4 or doors equipped with delayed egress locks in accordance with Section 1008.1.8.6.

The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702 of the State Building Code.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **1007.5 Platform lifts.** Platform (wheelchair) lifts shall not serve as part of an accessible means of egress, except where allowed as part of a required accessible route in Section 1109.7 of the International Building Code. Platform lifts in accordance with Section 604 shall be installed in accordance with ASME A18.1. Standby power shall be provided in accordance with Section 604.2 for platform lifts permitted to serve as part of a means of egress.

(Amd) **1008.1.1 Size of doors.** The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 32 inches. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Where this section requires a minimum clear width of 32 inches and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches. The maximum width of a swinging door leaf shall be 48 inches nominal. Means of egress doors in an occupancy in Group I-2 used for the movement of beds shall provide a clear width not less than 41 1/2 inches. The height of doors shall not be less than 80 inches.

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in occupancies in Groups R-2 and R-3 as applicable in Section 101.2 of the State Building Code.
2. Door openings to resident sleeping units not required to be accessible in occupancies in Group I-3 shall have a clear width of not less than 28 inches.
3. Door openings to storage closets less than 10 square feet in area shall not be limited by the minimum width.
4. Width of door leafs in revolving doors that comply with Section 1008.1.3.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall not be less than 78 inches in height.

6. Exterior door openings in dwelling units and sleeping units, other than the required exit door, shall not be less than 76 inches in height.
7. Interior egress doors within a dwelling unit or sleeping unit which is not required to be adaptable or accessible.
8. Door openings required to be accessible within Type B dwelling units shall have a minimum clear width of 31 ³/₄ inches.
9. Doors within and accessing Group R-1 bed and breakfast establishments shall have a minimum clear width of 28 inches. Doors within and accessing bathrooms in Group R-1 bed and breakfast establishments shall have a minimum clear width of 24 inches.

(Amd) **1008.1.2 Door swing.** Egress doors shall be side-hinged swinging.

Exceptions:

1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.
2. Group I-3 occupancies used as a place of detention.
3. Doors within or serving a single dwelling unit in Groups R-2 and R-3 as applicable in Section 101.2 of the State Building Code.
4. In other than Group H occupancies, revolving doors complying with Section 1008.1.3.1.
5. In other than Group H occupancies, horizontal sliding doors complying with Section 1008.1.3.3 are permitted in a means of egress.
6. Power-operated doors in accordance with Section 1008.1.3.2.

Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons, where serving an exit enclosure or where serving a Group H occupancy.

The opening force for interior side-swinging doors without closers shall not exceed a 5-pound force. For other side-swinging, sliding and folding doors, the door latch shall release when subject to a 15-pound force. The door shall be set in motion when subjected to a 30-pound force. The door shall swing to a full-open position when subjected to a 15-pound force. Forces shall be applied to the latch side.

(Amd) **1008.1.4 Floor elevation.** There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2-per cent slope).

Exceptions:

1. Doors serving individual dwelling units in Groups R-2 and R-3 where the following apply:
 - 1.1 A door is permitted to open at the top step of an interior flight of stairs, provided the door does not swing over the top step.
 - 2.2 Screen doors and storm doors are permitted to swing over stairs or landings.
2. Exterior doors as provided for in Section 1003.5, Exception 1, and Section 1017.2, which are not on an accessible route.
3. In Group R-3 occupancies, the landing at an exterior doorway shall not be more than 7 ³/₄ inches below the top of the threshold, provided the door, other than an exterior storm or screen door, does not swing over the landing.
4. Variations in elevation due to differences in finish materials, but not more than 0.5 inch.

(Amd) **1008.1.8.6 Delayed egress locks.** Approved, listed delayed egress locks shall be permitted to be installed on doors serving occupancies other than Groups A, E and H in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or with an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door supplied with a delayed egress lock before entering an exit.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

Exception to Item 4: Where approved by the local building official and the local fire marshal, a delay of not more than 30 seconds shall be permitted.

5. A readily visible, durable sign in letters not less than 1 inch high and not less than 1/8 inch in stroke width shall be provided on the door located above and within 12 inches of the release device reading:

PUSH UNTIL ALARM SOUNDS.
DOOR CAN BE OPENED IN 15 (30) SECONDS.

6. Emergency lighting shall be provided at the door.

(Add) **1008.1.8.8 Bathroom doors.** Group I-2 child care facility, Group I-4 day care facility and Group R-4 occupancy bathroom doors subject to locking shall be designed to allow unlocking from the outside during an emergency.

(Amd) **1009.3 Stair treads and risers.** Stair riser heights shall be 7 inches maximum and 4 inches minimum. Stair tread depths shall be 11 inches minimum. The riser height shall be measured vertically between the leading edges of adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by 3/8 inch.

Exceptions:

1. Circular stairways in accordance with Section 1009.7.
2. Spiral stairways in accordance with Section 1009.9.
3. Aisle stairs in assembly seating areas where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area in accordance with Section 1024.11.2.
4. In occupancies in Group R-1 bed and breakfast establishments, in occupancies in Group R-3, as applicable in Section 101.2 of the State Building Code, within dwelling units in occupancies in Group R-2 and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable

in Section 101.2 of the State Building Code, the maximum riser height shall be 8 1/4 inches and the minimum tread depth shall be 9 inches. A nosing not less than 3/4 inch but not more than 1 1/4 inches shall be provided on stairways with solid risers where the tread depth is less than 11 inches.

5. The riser height and tread depth of existing stairways in buildings undergoing addition, alteration, repair, relocation or change of occupancy that involve existing stairways shall be permitted to remain, provided the greatest riser height within any flight of stairs shall not exceed the smallest by 3/8 inch and the greatest tread depth within any flight of stairs shall not exceed the smallest by 3/8 inch.
6. Any stairway replacing an existing stairway within a space where the pitch or slope cannot be reduced because of existing construction shall not be required to comply with the maximum riser height and minimum tread depth requirements.

(Amd) **1009.8 Winders.** Winders are not permitted in means of egress stairways except within a dwelling unit and within existing detached one- and two-family dwellings undergoing a change of occupancy to Group R-1 bed and breakfast establishments.

(Add) **1009.8.1 Winder treads.** Winder treads shall have a minimum tread depth of 9 inches measured at a right angle to the tread's leading edge at a point 12 inches from the side where the treads are narrower and a minimum tread depth of 6 inches. The greatest winder tread depth at the 12-inch walk line within any flight of stairs shall not exceed the smallest by more than 3/8 inch.

(Amd) **1009.11 Handrails.** Stairways shall have handrails on each side. Handrails shall be adequate in strength and attachment in accordance with Section 1607.7 of the State Building Code. Handrails for ramps, where required by Section 1010.8, shall comply with this section.

Exceptions:

1. Aisle stairs complying with Section 1024 provided with a center handrail need not have additional handrails.
2. Stairways within dwelling units, spiral stairways and aisle stairs serving seating only on one side are permitted to have a handrail on one side only.
3. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change in elevation is greater than what is required for a landing do not require handrails.
4. In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require handrails.
5. Changes in room floor elevations of only one riser within dwelling units, Group R-1 bed and breakfast establishments and sleeping units in Group R-2 and R-3 occupancies do not require handrails.
6. Stairways within Group R-1 bed and breakfast establishments shall be equipped with a minimum of one handrail.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **1011.1.1 Floor proximity exit signs.** In addition to the exit signs required by Sections 1011.1 and 1011.1.2 of this code, exit doors shall be marked by floor proximity exit signs in Group A occupancies with an occupant load of more than

300, Group B medical occupancies, Group I-1 occupancies, Group I-2 occupancies, Group R-1 hotels and motels and Group R-2 dormitories.

(Add) **1011.1.1.1 Location and illumination.** Floor proximity exit signs shall be located with the bottom of the sign not less than 6 inches nor more than 18 inches above the finished floor. The signs shall be located on the door or adjacent to the door with the nearest edge within 4 inches of the door. Floor proximity exit signs shall be illuminated in accordance with the requirements of Section 1011.4 or 1011.5 of this code.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **1016.1.1 Group R-1 bed and breakfast establishments.** A fire resistance rating is not required for corridors in Group R-1 bed and breakfast establishments. Doors leading from guest rooms into corridors or hallways in Group R-1 bed and breakfast establishments shall be equipped with self-closing devices.

(Add) **1017.3 Mercantile occupancies.** In mercantile occupancies where the only means of customer entrance is through one exterior wall of a building, the exits in such wall shall be of sufficient width to accommodate not less than two-thirds of the occupant load, but such exits shall not be less than the total required width of all means of egress leading to those exits. The remaining exits shall be capable of providing at least one-half of the total required exit capacity.

Exception: Bulk merchandising mercantile occupancies.

(Amd) **1018.2 Buildings with one exit.** Only one exit shall be required in buildings as described below:

1. Buildings described in Table 1018.2, provided that the building has not more than one level below the first story above grade plane.
2. Buildings of Group R-3 occupancy.
3. Buildings of Group R-1 bed and breakfast establishment occupancy.
4. Single-level buildings with the occupied space at the level of exit discharge provided that the story or space complies with Section 1014.1 as a space with one means of egress.

(Amd) **1019.1 Enclosures required.** Interior exit stairways and interior exit ramps shall be enclosed with fire barriers. Exit enclosures shall have a fire-resistance rating of not less than 2 hours where connecting a total of four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the shaft enclosure shall include any basements but not any mezzanines. An exit enclosure shall not be used for any purpose other than means of egress. Enclosures shall be constructed as fire barriers in accordance with Section 706 of the State Building Code.

Exceptions:

1. In buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1 with other than Group H and I occupancies, a stairway serving an occupant load of less than 10 not more than one story above the level of exit discharge is not required to be enclosed.
2. Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside need not be enclosed.
3. Stairways serving not more than three stories and contained within a single residential dwelling unit or sleeping unit in occupancies in Group R-2 or R-3 and sleeping units in occupancies in Group R-1 are not required to be enclosed.

4. Stairways that are not a required means of egress element are not required to be enclosed where such stairways comply with Section 707.2 of the State Building Code.
5. Stairways in open parking structures that serve only the parking structure are not required to be enclosed.
6. Stairways in occupancies in Group I-3 as provided for in Section 408.3.6 of the State Building Code are not required to be enclosed.
7. Means of egress stairways as required by Section 410.5.4 of the State Building Code are not required to be enclosed.
8. Stairways connecting the first and second floors of Group R-1 bed and breakfast establishments shall not be required to be enclosed. Stairways connecting the second and third floors in such occupancies shall be enclosed with fire separation assemblies having a fire resistance rating of not less than 1 hour. Stairways connecting the basement and the first floor in such occupancies shall be enclosed with fire partitions having a fire resistance rating of not less than 1/2 hour with 20-minute fire-resistance-rated door assemblies. Fire-resistance-rated assemblies at stairways in Group R-1 bed and breakfast establishments shall not be required to be supported by fire-resistance-rated construction.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **1024.3 Assembly other exits.** Group A occupancies and buildings that have a single main entrance/exit in accordance with Section 1024.2, shall be provided with additional exits that provide for at least one-half of the total occupant load of such occupancy or building and comply with Section 1014.2.

(Amd) **1024.12 Seat stability.** In places of assembly, the seats shall be securely fastened to the floor.

Exceptions:

1. In places of assembly or portions thereof without balconies, ramped or tiered floors for seating and with 200 or fewer seats, the seats shall not be required to be fastened to the floor.
2. In places of assembly or portions thereof with seating at tables and without ramped or tiered floors for seating, the seats shall not be required to be fastened to the floor.
3. In places of assembly or portions thereof without ramped or tiered floors for seating and with greater than 200 seats, the seats shall be fastened together in groups of not less than three or the seats shall be fastened to the floor.
4. In places of assembly where flexibility of the seating arrangement is an integral part of the design and function of the space and seating is on tiered levels, a maximum of 200 seats shall not be required to be fastened to the floor provided that all seats in balconies are fastened together in groups of not less than three or the seats shall be fastened to the floor. Plans showing the seating, tiers and aisles shall be submitted for approval.
5. Groups of seats within a place of assembly separated from other seating by railings, guards, partial height walls or similar barriers with level floors and having no more than 14 seats per group shall not be required to be fastened to the floor.
6. Seats intended for musicians or other performers and separated by railings, guards, partial height walls or similar barriers shall not be required to be fastened to the floor.

(Add) **1025.1.1 Group E occupancies.** In Group E occupancies, emergency escape and rescue openings shall be provided in every room or space greater than 250 square feet used for classroom or educational purposes or normally subject to student occupancy.

Exceptions:

1. Buildings protected throughout by an approved automatic sprinkler system in accordance with Section 903.3.1.1.
2. Rooms or spaces that have a door leading directly to the outside of the building.
3. Rooms located more than three stories above grade.

(Add) **1025.1.2 Group I-4 occupancies.** In Group I-4 occupancies, emergency escape and rescue openings shall be provided in every room or space greater than 250 square feet normally subject to client occupancy.

(Amd) **1025.2.1 Minimum dimensions.** The minimum net clear opening height dimension shall be 24 inches. The minimum net clear opening width dimension shall be 20 inches. The net clear opening dimensions shall be the result of normal operation of the opening.

Exception: In existing buildings undergoing a change of occupancy to Group R-1 bed and breakfast establishments, the net clear opening dimensions shall be permitted to be obtained by removal of the sash without the use of a key or tool provided that the instructions for the removal of the sash are clearly posted on the inside of the guest room door.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

CHAPTER 11

AVIATION FACILITIES

(Del) **Delete Chapter.**

CHAPTER 12

DRY CLEANING

(Del) **Delete Chapter.**

CHAPTER 13

COMBUSTIBLE DUST-PRODUCING OPERATIONS

(Del) **Delete Chapter.**

CHAPTER 14

FIRE SAFETY DURING CONSTRUCTION

(Del) **Delete Chapter.**

CHAPTER 15

FLAMMABLE FINISHES

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

CHAPTER 16

FRUIT AND CROP RIPENING

(Del) **Delete Chapter.**

CHAPTER 17

FUMIGATION AND THERMAL INSECTICIDAL FOGGING

(Del) **Delete Chapter.**

CHAPTER 18

SEMICONDUCTOR FABRICATION FACILITIES

(Del) **Delete Chapter.**

CHAPTER 19

LUMBER YARDS AND WOODWORKING FACILITIES

(Del) **Delete Chapter.**

CHAPTER 20

MANUFACTURE OF ORGANIC COATINGS

(Del) **Delete Chapter.**

CHAPTER 21

INDUSTRIAL OVENS

(Del) **Delete Chapter.**

CHAPTER 22

MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

CHAPTER 23

HIGH-PILED COMBUSTIBLE STORAGE

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

CHAPTER 24

TENTS, CANOPIES AND OTHER MEMBRANE STRUCTURES

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **2401.3** In addition to the requirements of this code, tents, canopies and membrane structures shall comply with the provisions of section 29-140 of the Connecticut General Statutes and the regulations adopted pursuant to section 29-140 of the Connecticut General Statutes, known as the Connecticut Tent and Portable Shelter Code.

CHAPTER 25

TIRE REBUILDING AND TIRE STORAGE

(Del) **Delete Chapter.**

CHAPTER 26

WELDING AND OTHER HOT WORK

(Del) **Delete Chapter.**

CHAPTER 27

HAZARDOUS MATERIALS – GENERAL PROVISIONS

(Del) **Delete Chapter.**

CHAPTER 28

AEROSOLS

(Del) **Delete Chapter.**

CHAPTER 29

COMBUSTIBLE FIBERS

(Del) **Delete Chapter.**

CHAPTER 30

COMPRESSED GASES

(Del) **Delete Chapter.**

CHAPTER 31

CORROSIVE MATERIALS

(Del) **Delete Chapter.**

CHAPTER 32

CRYOGENIC MATERIALS

(Del) **Delete Chapter.**

CHAPTER 33

EXPLOSIVES AND FIREWORKS

(Del) **Delete Chapter.**

CHAPTER 34

FLAMMABLE AND COMBUSTIBLE LIQUIDS

(Del) **Delete Chapter.**

CHAPTER 35

FLAMMABLE GASES

(Del) **Delete Chapter.**

CHAPTER 36

FLAMMABLE SOLIDS

(Del) **Delete Chapter.**

CHAPTER 37

HIGHLY TOXIC AND TOXIC MATERIALS

(Del) **Delete Chapter.**

CHAPTER 38

LIQUEFIED PETROLEUM GASES

(Del) **Delete Chapter.**

CHAPTER 39

ORGANIC PEROXIDES

(Del) **Delete Chapter.**

CHAPTER 40

OXIDIZERS

(Del) **Delete Chapter.**

CHAPTER 41

PYROPHORIC MATERIALS

(Del) **Delete Chapter.**

CHAPTER 42

PYROXYLIN (CELLULOSE NITRATE) PLASTICS

(Del) **Delete Chapter.**

CHAPTER 43

UNSTABLE (REACTIVE) MATERIALS

(Del) **Delete Chapter.**

CHAPTER 44

WATER-REACTIVE SOLIDS AND LIQUIDS

(Del) **Delete Chapter.**

CHAPTER 45

REFERENCED STANDARDS

(Del) **ICC; International Code Council, Inc.** Delete section.

(Del) **NFPA; National Fire Protection Association.** Delete section.

APPENDIX A

BOARD OF APPEALS

(Del) **Delete Appendix.**

APPENDIX B

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

(Del) **Delete Appendix.**

APPENDIX C**FIRE HYDRANT LOCATIONS AND DISTRIBUTION**

(Del) **Delete Appendix.**

APPENDIX D**FIRE APPARATUS ACCESS ROADS**

(Del) **Delete Appendix.**

APPENDIX E**HAZARD CATEGORIES**

(Del) **Delete Appendix.**

APPENDIX F**HAZARD RANKING**

(Del) **Delete Appendix.**

APPENDIX G**CRYOGENIC FLUIDS – WEIGHT AND VOLUME EQUIVALENTS**

(Del) **Delete Appendix.**

Part IV**Existing Buildings/Occupancies****Sec. 29-292-18e. Application**

The provisions of this section shall only apply to an occupancy or use located within buildings or structures, or portions thereof, that existed prior to the adoption of this code.

The provisions of Part III of this code shall apply to all buildings or structures, or portions thereof, undergoing a change of occupancy.

The design and construction of new structures shall comply with Part III of this code.

Repairs, alterations and additions to existing structures shall comply with Part III of this code.

(Adopted effective December 31, 2005)

Sec. 29-292-19e. Changes of Use

A change from one occupancy classification to another in any building or structure shall be in accordance with section 29-292-11e of the Regulations of Connecticut State Agencies.

(Adopted effective December 31, 2005)

Sec. 29-292-20e. Adopted Standard

The following standard promulgated by the National Fire Protection Association (NFPA) is hereby adopted as part of sections 29-292-18e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies:

Life Safety Code® of the National Fire Protection Association, Standard 101 (NFPA 101®), 2003 edition, with appendices, except as amended, altered or deleted and by the addition of certain provisions as indicated in section 29-292-21e of the Regulations of Connecticut State Agencies.

The standards promulgated by the NFPA are available from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269; telephone 1-800-344-3555.

(Adopted effective December 31, 2005)

Sec. 29-292-21e. Connecticut Amendments

The adopted National Fire Protection Association standard NFPA 101® is amended to meet the needs of the State of Connecticut as follows:

Note:

A section or subsection in the Connecticut Amendments preceded by “Amd” indicates the substitution of this provision in the adopted referenced standard, National Fire Protection Association Standard 101, Life Safety Code®, 2003 edition.

A section or subsection in the Connecticut Amendments preceded by “Del” indicates the deletion of this provision in the adopted referenced standard.

A section or subsection in the Connecticut Amendments preceded by “Add” indicates the addition of this provision in the adopted referenced standard.

A section or subsection in the Connecticut Amendments followed by an asterisk “*” indicates that explanatory material on the section or subsection can be found in Appendix A of the adopted referenced standard.

Chapter 1*

Administration

(Del) **1.1.1** Delete section.

(Amd) **1.1.3 Egress Facilities.** The code establishes minimum criteria for egress facilities so as to allow prompt escape of occupants from buildings or, where desirable, into safe areas within buildings.

(Del) **1.3.1*** Delete section.

(Del) **1.6** Delete section.

Chapter 2

Referenced Publications

(Del) **2.2 NFPA Publications.** Delete section.

(Del) **2.3.4 ASME Publications.** Delete section.

Chapter 3 Definitions

(Amd) **3.3.27* Building.** Any structure used or intended for supporting or sheltering any use or occupancy. For application of this code, each portion of a building which is completely separated from other portions by fire walls which have been designed and constructed in accordance with the State Building Code and have been approved by the building official shall be considered separate buildings.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **3.3.152.12.1 Bed and Breakfast or Bed and Breakfast Establishment.** A building:

- (1) That provides sleeping accommodations to the public for a fee for no more than 16 persons with guest rooms limited to the first or second floor of the structure, and
- (2) Where the owner occupies the facility or an adjacent property as his or her primary place of residence, and
- (3) Where cooking or food warming of any type is not allowed in guest rooms, and
- (4) That has a maximum of three stories in height and does not contain a mixed occupancy.

(Amd) **3.3.191* Self-Preservation (Day-Care Occupancy).** The ability of a client to evacuate a day-care occupancy without direct intervention by a staff member. Clients under the age of 3 years shall be considered incapable of self-preservation.

Chapter 4 General

(Del) **4.5 Fundamental Requirements.** Delete section.

(Del) **4.6.1.2** Delete section.

(Del) **4.6.1.3** Delete section.

(Del) **4.6.3*** Delete section.

(Del) **4.6.4*** Delete section.

(Amd) **4.6.8*** Existing life safety features that do not meet the requirements for new buildings, but that exceed the requirements for existing buildings, shall not be further diminished.

(Del) **4.6.11.2*** Delete section.

(Del) **4.7** Delete section.

(Del) **4.8** Delete section.

Chapter 5 Performance-Based Options

(Del) **Delete Chapter.**

Chapter 6 Classification of Occupancy and Hazard of Contents

(Add) **6.1.8.1.6 Definition – Bed and Breakfast or Bed and Breakfast Establishment.** An existing building:

- (1) That provides sleeping accommodations to the public for a fee for no more than 16 persons with guest rooms limited to the first or second floor of the structure;
- (2) Where the owner occupies the facility or an adjacent property as his or her primary place of residence;
- (3) Where cooking or food warming of any type is not allowed in guest rooms; and
- (4) That has a maximum of three stories in height and does not contain a mixed occupancy.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

Chapter 7

Means of Egress

(Amd) **7.1.3.2.1** Where this code requires an exit to be separated from other parts of the building, the separating construction shall meet the requirements of 8.2 and the following:

- (1)* The separation shall have not less than a 1-hour fire resistance rating where the exit connects three stories or less.
- (2)* The separation shall have not less than a 2-hour fire resistance rating where the exit connects four or more stories, unless one of the following conditions exists:
 - (a) In existing non-high-rise buildings, existing exit stair enclosures shall have not less than a 1-hour fire resistance rating.
 - (b) In existing buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7, existing exit stair enclosures shall have not less than a 1-hour fire resistance rating.
 - (c) One-hour enclosures in accordance with 29.2.2.1.2 and 31.2.2.1.2 shall be permitted as an alternative to the requirement of 7.1.3.2.1(2).
- (3) The 2-hour fire resistance separation required by 7.1.3.2.1(2) above shall be constructed of an assembly of noncombustible or limited-combustible materials and shall be supported by construction having not less than a 2-hour fire resistance rating.
- (4) Openings in the separation shall be protected by fire door assemblies equipped with door closers complying with 7.2.1.8.
- (5)* Openings in exit enclosures shall be limited to doors from normally occupied spaces and corridors and doors for egress from the enclosure, unless one of the following conditions exists:
 - (a) Openings in exit passageways in mall buildings as provided in Chapter 37 shall be permitted.
 - (b) In buildings of Type I or II construction, existing fire-protection rated doors to interstitial spaces shall be permitted, provided that such spaces meet all of the following criteria:
 - i. The space is used solely for distribution of pipes, ducts, and conduits.
 - ii. The space contains no storage.
 - iii. The space is separated from the exit enclosure in accordance with 8.3.
 - (c) Existing openings to mechanical equipment spaces protected by approved existing fire protection-rated doors shall be permitted, providing that the following criteria are met:

- i. The space is used solely for non-fuel-fired mechanical equipment.
 - ii. The space contains no storage of combustible materials.
 - iii. The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.
- (6) Penetrations into, and openings through, an exit enclosure assembly shall be limited to the following:
- (a) Doors permitted by 7.1.3.2.1(5);
 - (b) Electrical conduit serving the stairway;
 - (c) Required exit doors;
 - (d) Duct work and equipment necessary for independent stair pressurization;
 - (e) Water or steam piping necessary for the heating or cooling of the exit enclosure;
 - (f) Sprinkler piping;
 - (g) Standpipes;
 - (h) Existing penetrations protected in accordance with 8.3.5;
 - (i) Penetrations for fire alarm circuits where the circuits are installed in metallic conduit and the penetrations are protected in accordance with 8.3.5; or
 - (j) Penetrations by ductwork for required ventilation of the exit enclosure shall be permitted when:
 - i. The exit enclosure does not have any portion of its walls or roof exposed to the exterior of the building;
 - ii. The duct opening shall be protected by a combination smoke and fire damper in accordance with 8.5.4.2; and
 - iii. The smoke damper shall close upon shutdown of the associated heating, ventilation and cooling unit.
- (7) Penetrations or communicating openings shall be prohibited between adjacent exit enclosures.

(Amd) **7.1.5.1** Means of egress shall be designed and maintained to provide headroom in accordance with other sections of this code, and such headroom shall be not less than 2285 mm (90 in.), with projections from the ceiling not less than 2030 mm (80 in.) nominal above the finished floor, unless otherwise specified in 7.1.5.1.1 through 7.1.5.1.4.

(Add) **7.1.5.1.3** In existing buildings, the projections from the ceiling are permitted but not more than 1830 mm (72 in.) nominal above the finished floor where the projection is provided with padding and illumination by both normal and emergency sources.

(Add) **7.1.5.1.4** Door closers and stops shall not reduce the headroom to less than 1981 mm (78 in.).

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **7.2.1.2.3.2** For swinging doors, projections of not more than 100 mm (4 in.) into the doorway width shall not be considered reductions in width, provided that such projections are located not less than 865 mm (34 in.) above the floor.

(Amd) **7.2.1.3.3** Thresholds at doorways shall not exceed 13 mm ($1/2$ in.) in height or 19.1 mm ($3/4$ in.) in height for sliding doors serving dwelling units.

(Amd) **7.2.1.4.3** A door shall swing in the direction of egress travel under any of the following conditions:

- (1) Where used in an exit enclosure, unless the door is a door of an individual living unit that opens directly into an exit enclosure or in an existing building where the door serves an occupant load of fewer than 50 persons and does not serve a high hazard contents area.
- (2) Where the door serves a high hazard contents area.

(Amd) **7.2.1.6.2 Access-Controlled Egress Doors.** Where permitted in Chapter 11 through Chapter 42, entrance doors to buildings and tenant spaces in the means of egress shall be permitted to be equipped with an approved entrance and egress access control system, provided that the following criteria are met:

- (1) One of the following shall be provided:
 - (a) A sensor on the egress side, arranged to detect an occupant approaching doors that are arranged to unlock in the direction of egress upon detection of an approaching occupant or loss of power to the sensor; or
 - (b) Listed panic hardware or fire exit hardware that, when operated, unlocks the door.
- (2) Loss of power to the part of the access control system that locks the doors shall automatically unlock the doors in the direction of egress.
- (3) The doors shall be arranged to unlock in the direction of egress from a manual release device located 1015 mm to 1220 mm (40 in. to 48 in.) vertically above the floor and within 1525 mm (60 in.) of the secured doors.
- (4) The manual release device specified in 7.2.1.6.2(3) shall be readily accessible and clearly identified by a sign that reads as follows: PUSH TO EXIT.
- (5) When operated, the manual release device shall result in direct interruption of power to the lock – independent of the access control system electronics – and the doors shall remain unlocked for not less than 30 seconds.
- (6) Activation of the building fire-protective signaling system, if provided, shall automatically unlock the doors in the direction of egress, and the doors shall remain unlocked until the fire-protective signaling system has been mechanically reset.
- (7) Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors in the direction of egress, and the doors shall remain unlocked until the fire-protective signaling system has been mechanically reset.

(Amd) **7.2.2.1.2** The requirements of 7.2.2.1.1 shall not apply to aisle steps as provided in Chapter 13.

(Add) **7.2.2.2.1.1** Existing stairs shall be permitted to remain in use if the minimum width clear of all obstructions, except projections not more than 114 mm (4½ in.) at or below handrail height on each side is 710 mm (28 in.) and the total occupant load of all floors served by the stair is fewer than 30 persons.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **7.2.2.2.4.4** Existing stairs containing winders may be continued in use provided all of the following are met:

- (1) Such winders have a minimum depth of tread of 7½ in. at a point 12 in. from the narrowest edge.

- (2) The nosing of each winder tread shall be made readily visible by the application of a 2 in. wide stripe for the full width of the tread that is of a distinctive or contrasting color.
- (3) The area of the winder shall be provided with both normal illumination and emergency lighting in accordance with 7.8 and 7.9.
- (4) A handrail shall be provided for the full length of stair travel at the side of the stair having the widest tread portion.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **7.2.2.5.2*** Delete section.

(Amd) **7.2.2.6.3.1** Outside stairs shall be separated from the interior of the building by construction with the fire resistance rating required for enclosed stairs with fixed or self-closing opening protectives, except as follows:

- (1) Outside stairs serving an exterior exit access balcony that has two remote outside stairways or ramps shall be permitted to be unprotected.
- (2) In existing buildings, existing outside stairs serving not in excess of four adjacent stories, including the story of exit discharge, shall be permitted to be unprotected where there is a remotely located second exit.
- (3) The fire resistance rating of a separation extending 3050 mm (120 in.) from the stairs shall not be required to exceed 1 hour where openings have not less than a $\frac{3}{4}$ -hour fire protection rating.
- (4) Outside stairs in existing buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7 shall be permitted to be unprotected.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **7.2.12.3.2** Delete section.

(Amd) **Table 7.3.1.2 Occupant Load Factor**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **7.4.1.6.1** The provisions of 7.4.1.6 shall not apply to buildings for which a building permit was issued prior to June 15, 1994.

(Amd) **7.7.2 Discharge through Areas on Level of Exit Discharge.** Not more than 50 per cent of the required number of exits, and not more than 50 per cent of the required egress capacity, shall be permitted to discharge through areas on the level of exit discharge, unless otherwise permitted in 7.7.2.1 and 7.7.2.2, provided that the criteria of 7.7.2.3 through 7.7.2.7 are met.

(Amd) **7.9.1.1*** Emergency lighting facilities for means of egress shall be provided in accordance with 7.9 for the following:

- (1) Buildings or structures where required in Chapter 11 through Chapter 42, where the building or structure is required to have two or more means of egress.
- (2) Underground and limited access structures as addressed in 11.7, where the building or structure is required to have two or more means of egress.
- (3) High-rise buildings as required by other sections of this code.
- (4) Doors equipped with delayed-egress locks.
- (5) Stair shaft and vestibule of smoke enclosures, for which the following also shall apply:

- (a) The stair shaft and vestibule shall be permitted to include a standby generator that is installed for the smoke proof enclosure mechanical ventilations equipment.
- (b) The standby generator shall be permitted to be used for the stair shaft and vestibule emergency lighting power supply.

(Del) **7.9.3** Delete section.

Chapter 8

Features of Fire Protection

(Amd) **Table 8.3.4.2 Minimum Fire Protection Ratings for Opening Protectives in Fire Resistance-Rating Assemblies**

Component	Walls and Partitions (hr)	Fire Door Assemblies (hr)	Fire Window Assemblies (hr)
Elevator hoistways	2 1	1 ^{1/2} 1	NP NP
Vertical shafts (including stairways, exits, and refuse chutes)	2 1 1/2	1 ^{1/2} 1 1/3	NP NP (3/4 in other than exits) NP (1/3 in other than exits)
Fire barriers	2 1	1 ^{1/2} 3/4	NP 3/4
Horizontal exits	2	1 ^{1/2}	NP
Exit access corridors ¹	1 1/2	1/3 1/3	3/4 1/3
Smoke barriers ¹	1/2	1/3	3/4
Smoke partitions ^{1,2}	1/2	1/3	1/3

Note: NP = not permitted.

¹Fire doors are not required to have a hose stream test per NFPA 252.

²For residential board and care, see 33.2.3.1.1.

(Add) **8.3.4.3.1**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **8.6.7* Atriums.** Unless prohibited by Chapter 12 through Chapter 42, an atrium shall be permitted provided the following conditions are met:

- (1) The atrium is separated from the adjacent spaces by fire barriers with not less than a 1-hour fire resistance rating with opening protectives for corridor walls, unless one of the following is met:
 - (a) The requirement of 8.6.7(1) shall not apply to existing, previously approved atriums.
 - (b) Any number of levels of the building shall be permitted to open directly to the atrium without enclosure based on the results of the engineering analysis required in 8.6.7(5), except that two levels of the building shall be permitted to open directly to the atrium without enclosure or the need for the engineering analysis.
 - (c) Glass walls and inoperable windows shall be permitted in lieu of the fire barriers where all the following are met:
 - i. Automatic sprinklers are spaced along both sides of the glass wall and the inoperable window at intervals not to exceed 1830 mm (72 in.).

- ii. The automatic sprinklers specified in 8.6.7(1)(c)i are located at a distance from the glass wall not to exceed 305 mm (12 in.) and arranged so that the entire surface of the glass is wet upon operation of the sprinklers.
 - iii. The glass wall is of tempered, wired or laminated glass held in place by a gasket system that allows the glass framing system to deflect without breaking (loading) the glass before the sprinklers operate.
 - iv. The automatic sprinklers required by 8.6.7(1)(c)i are not required on the atrium side of the glass wall and the inoperable windows where there is no walkway or other floor area on the atrium side above the main floor level.
 - v. Doors in the glass walls shall be glass or other material that resists the passage of smoke.
 - vi. Doors in the glass walls shall be self-closing or automatic-closing upon detection of smoke.
- (2) Access to exits is permitted to be within the atrium, and exit discharge in accordance with 7.7.2 is permitted to be within the atrium.
 - (3) The occupancy within the atrium meets the specifications for classification as low or ordinary hazard contents. (See 6.2.2.)
 - (4) The entire building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7, unless that area of a building adjacent to or above the atrium need not be sprinkled provided that portion of the building is separated from the atrium portion by a 2-hour fire barrier wall or horizontal assembly or both.
 - (5) *For other than existing, previously approved atriums and atriums connecting less than three stories, an engineering analysis is performed that demonstrates that the building is designed to keep the smoke layer interface above the highest unprotected opening to adjoining spaces, or 1830 mm (72 in.) above the highest floor level of exit access open to the atrium, for a period equal to 1.5 times the calculated egress time or 20 minutes, whichever is greater.
 - (6) *In other than existing, previously approved atriums and atriums connecting less than three stories, where an engineered smoke control system is installed to meet the requirements of 8.6.7(5), the system is independently activated by each of the following:
 - (a) The required automatic sprinkler system;
 - (b) Manual controls that are readily accessible to the fire department.
- (Amd) **8.6.8.2** Where permitted by Chapter 12 through Chapter 42, unenclosed vertical openings not concealed within the building construction shall be permitted as follows:
- (1) Such openings shall connect not more than two adjacent stories (one floor pierced only).
 - (2) Such openings shall be separated from unprotected vertical openings serving other floors by a barrier complying with 8.6.5.
 - (3) Such openings shall be separated from corridors, unless they are located within buildings protected throughout by an automatic sprinkler system in other than residential or institutional occupancies.
 - (4) *Such openings shall not serve as a required means of egress.
- (Amd) **8.6.9.3 Openness.** Mezzanines shall be in accordance with either 8.6.9.3.1, 8.6.9.3.2, 8.6.9.3.3, 8.6.9.3.4 or 8.6.9.3.5.
- (Add) **8.6.9.3.3** A mezzanine or portions thereof are not required to be open to the room in which the mezzanines are located, provided that the aggregate floor area of the enclosed space does not exceed 10 per cent of the mezzanine area.

(Add) **8.6.9.3.4** In industrial facilities, mezzanines used for control equipment are permitted to be glazed on all sides.

(Add) **8.6.9.3.5** In industrial occupancies permitted to be of unlimited area by the State Building Code, mezzanines or portions thereof are not required to be open to the room in which the mezzanines are located, provided that an approved fire alarm system is installed throughout the entire building or structure and notification appliances are installed throughout the mezzanines in accordance with the provisions of NFPA 72®. In addition, the fire alarm system shall be initiated by automatic sprinkler water flow.

(Amd) **8.7.3.1** The storage and handling of flammable liquids or gases shall be in accordance with the following applicable codes:

- (1) The Connecticut Flammable and Combustible Liquids Code.
- (2) The Connecticut Gas Equipment and Piping Code.
- (3) The Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code.

Chapter 9

Building Service and Fire Protection Equipment

(Amd) **9.1.1 Gas.** Equipment utilizing gas and related gas piping shall be installed in accordance with the Connecticut Gas Equipment and Piping Code or the Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code, unless such installations are approved existing installations, which shall be permitted to be continued in service.

(Amd) **9.2.2** Ventilating or heat-producing equipment shall be installed in accordance with NFPA 91, Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Non-combustible Particulate Solids; NFPA 211, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances; the Connecticut Oil Burning Equipment Code; the Connecticut Gas Equipment and Piping Code; or NFPA 70, National Electrical Code®, as applicable unless such installations are approved existing installations, which shall be permitted to be continued in service.

(Amd) **9.4.2.1** New and existing elevators, escalators, dumbwaiters, and moving walks shall be installed and maintained in accordance with the requirements of the Connecticut Safety Code for Elevators and Escalators enforced by the Connecticut Department of Public Safety.

(Del) **9.4.2.2** Delete section.

(Del) **9.4.3** Delete section.

(Del) **9.4.5*** Delete section.

(Del) **9.4.6** Delete section.

(Amd) **9.6.2.10.2** Smoke alarms shall receive their operating power as follows:

- (1) In buildings for which a building permit for new occupancy was issued on or after October 1, 1985, smoke alarms shall be powered by both alternating current (AC) and batteries (DC).
- (2) In buildings for which a building permit for new occupancy was issued on or after October 1, 1976, smoke alarms shall be powered by the household electrical service.

- (3) In buildings for which a building permit was issued prior to October 1, 1976, smoke alarms may be battery powered.

(Add) **9.6.3.5.7** When selective occupant notification is utilized in accordance with 9.6.3.6.2 or 9.6.3.6.3, the portions of the building that do not receive the initial notification of alarm shall be separated from areas of the immediate emergency and initial evacuation by construction having a fire resistance rating of at least 1 hour.

(Amd) **9.7.1.2**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **9.7.1.5 Statutory Requirements.**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **9.7.1.6** Buildings provided with standby electrical power for the purpose of continuing operations or occupancy shall provide standby power for any electric fire pump installed to provide an adequate water supply or minimum operating pressure to a required automatic sprinkler system, except that existing installations may be continued in service subject to the approval of the authority having jurisdiction.

Standby power in accordance with NFPA 70, National Electrical Code®, and NFPA 110, Standard for Emergency and Standby Power Systems, Type 60 shall be provided. The standby power system shall have a capacity and rating sufficient to supply all required equipment. Selective load pickup and load shedding shall be permitted in accordance with NFPA 70, National Electrical Code®.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

Chapter 10

Interior Finish, Contents, and Furnishings

(Amd) **10.2.4.1* Textile Wall and Textile Ceiling Materials.** The use of textile materials on walls or ceilings shall comply with one of the following conditions:

- (1) Textile materials having a Class A rating (See 10.2.3.4) shall be permitted on the walls or ceilings of rooms or areas protected by an approved automatic sprinkler system.
- (2) Textile materials having a Class A rating (See 10.2.3.4) shall be permitted on partitions that do not exceed three-quarters of the floor-to-ceiling height or do not exceed 2440 mm (96 in.) in height, whichever is less.
- (3) Textile materials having a Class A rating (See 10.2.3.4) shall be permitted to extend not more than 1220 mm (48 in.) above the finished floor on ceiling-height walls and ceiling-height partitions.
- (4) Previously approved existing installations of textile material having a Class A rating (See 10.2.3.4) shall be permitted to be continued to be used.
- (5) Textile materials shall be permitted on walls and partitions where tested in accordance with NFPA 265, Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls. (See 10.2.3.7.)

(Amd) **10.2.4.2* Expanded Vinyl Wall or Ceiling Coverings.** The use of expanded vinyl wall or ceiling coverings shall comply with one of the following conditions:

- (1) Materials having a Class A rating (See 10.2.3.4) shall be permitted on the walls or ceilings of rooms or areas protected by an approved automatic sprinkler system.
- (2) Materials having a Class A rating (See 10.2.3.4) shall be permitted on partitions that do not exceed three-quarters of the floor-to-ceiling height or do not exceed 2440 mm (96 in.) in height, whichever is less.
- (3) Materials having a Class A rating (See 10.2.3.4) shall be permitted to extend not more than 1220 mm (48 in.) above the finished floor on ceiling-height walls and ceiling-height partitions.
- (4) Existing installations of materials with the appropriate wall finish classification for the occupancy involved, and with classification in accordance with the provisions in 10.2.3.4, shall be permitted to be continued to be used.
- (5) Materials shall be permitted on walls and partitions where tested in accordance with NFPA 265, Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls. (See 10.2.3.7.)
- (6) Materials shall be permitted on walls, partitions and ceilings where tested in accordance with NFPA 286, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth. (See 10.2.3.7.)

Chapter 11

Special Structures and High-Rise Buildings

(Amd) **11.7.3.4** Underground and limited access structures, and all areas and floor levels traversed in traveling to the exit discharge, shall be protected by an approved, supervised automatic sprinkler system in accordance with 9.7, unless such structures meet one of the following criteria:

- (1) They have an occupant load of 50 or fewer persons in new underground or limited access portions of the structure.
- (2) They have an occupant load of 100 or fewer persons in existing underground or limited access portions of the structure.
- (3) The structure is a single-story underground or limited access structure that is permitted to have a single exit per Chapter 12 through Chapter 42.

(Del) **11.9.1.6.3** Delete section.

(Del) **11.10 Temporary Membrane Structures.** Delete section.

(Del) **11.11 Tents.** Delete section.

Chapter 12

New Assembly Occupancies

(Del) **Delete Chapter.**

Chapter 13

Existing Assembly Occupancies

(Del) **13.1.1.2** Delete section.

(Del) **13.1.1.4** Delete section.

(Del) **13.1.1.5** Delete section.

(Del) **13.1.6** Delete section.

(Amd) **Table 13.2.3.2 Capacity Factors**

No. of Seats	Clear Width per Seat Served			
	Stairs		Passageways, Ramps, and Doorways	
	Mm	in.	mm	in.
Unlimited	7.6 AB	0.3 AB	5.6 C	0.22 C

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **13.2.5.1.1** The common paths of travel shall be permitted for the first 9144 mm (360 in.) from any point where the common path serves any number of occupants, and for the first 23 m (75 ft) from any point where the common path serves not more than 50 occupants.

(Amd) **13.2.5.1.2** Dead-end corridors shall not exceed 6100 mm (240 in.), except that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) **13.2.5.6.3* Minimum Aisle Width.** The minimum clear width of aisles shall be sufficient to provide egress capacity in accordance with 13.2.3.2 but shall not be less than the following:

- (1) 1065 mm (42 in.) for stairs having seating on each side unless otherwise permitted by the following:
 - (a) The minimum clear width required by 13.2.5.6.3(1) shall be permitted to be not less than 760 mm (30 in.) for catchment areas not having more than 60 seats.
 - (b) The minimum clear width required by 13.2.5.6.3(1) shall be permitted to be not less than 915 mm (36 in.) where an aisle does not serve more than 50 seats.
- (2) 915 mm (36 in.) for stairs having seating on only one side, or 760 mm (30 in.) for catchment areas having not more than 60 seats.
- (3) 510 mm (20 in.) between a handrail and seating or between a guardrail and seating where the aisle is subdivided by a handrail.
- (4) 1065 mm (42 in.) for level or ramped aisles having seating on both sides, unless otherwise permitted by the following:
 - (a) The minimum clear width required by 13.2.5.6.3(4) shall be not less than 760 mm (30 in.) where an aisle does not serve more than 14 seats.
 - (b) The minimum clear width required by 13.2.5.6.3(4) shall be not less than 915 mm (36 in.) where an aisle does not serve more than 50 seats.
- (5) 915 mm (36 in.) for level or ramped aisles having seating on only one side, or 760 mm (30 in.) where an aisle does not serve more than 14 seats.
- (6) 580 mm (23 in.) between a handrail or guardrail and seating where an aisle does not serve more than five rows on one side.

(Amd) **13.2.11.1 Guards and Railings: Boxes, Balconies, and Galleries.** Boxes, balconies and galleries shall meet the following criteria:

- (1) The fasciae of boxes, balconies and galleries shall rise not less than 660 mm (26 in.) above the adjacent floor or shall have substantial railings not less than 660 mm (26 in.) above the adjacent floor.
- (2) The height of the rail above footrests on the adjacent floor immediately in front of a row of seats shall be not less than 660 mm (26 in.), and the following also shall apply:

- (a) Railings at the ends of aisles shall be not less than 915 mm (36 in.) high for the full width of the aisle.
- (b) Railings at the end of aisles shall be not less than 915 mm (36 in.) high where steps occur.
- (3) Aisle accessways adjacent to orchestra pits and vomitories, and all cross aisles, shall be provided with railings not less than 660 mm (26 in.) above the adjacent floor.
- (4) The requirement of 13.2.11.1(3) shall not apply where the backs of seats located at the front of the aisle project 610 mm (24 in.) or more above the adjacent floor of the aisle.
- (5) Guardrails shall not be required on the audience side of stages, raised platforms, and other raised floor areas such as runways, ramps, and side stages used for entertainment or presentations.
- (6) Permanent guardrails shall not be required at vertical openings in the performance area of stages.
- (7) Guardrails shall not be required where the side of an elevated walking surface is required to be open for the normal functioning of special lighting or for access and use of other special equipment.

(Amd) **13.3.2.1.2**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **13.3.3.4** Screens on which pictures are projected shall comply with the requirements of Class A or Class B interior finish in accordance with 10.2 or NFPA 701 in accordance with 10.3.1, as applicable.

(Amd) **13.3.4.3.4** The announcement shall be made via an approved voice communication or public address system that is provided with an emergency power source and that is audible above the ambient noise level of the assembly occupancy.

(Add) **13.3.5.4** Buildings with occupant loads greater than 300 for which a building permit for new occupancy was issued on or after April 15, 1987 shall be protected by an approved supervised automatic sprinkler system in accordance with section 9.7.1 as follows:

- (1) Throughout the story containing the assembly occupancy.
- (2) Throughout any story below the story containing the assembly occupancy.
- (3) In the case of an assembly occupancy located below the level of exit discharge, throughout any story intervening between this story and the level of exit discharge, including the level of exit discharge.

(Add) **13.3.5.5** The requirements of 13.3.5.4 shall not apply to the following:

- (1) Assembly occupancies used primarily for worship with fixed seating.
- (2) Assembly occupancies consisting of a single multi-purpose room less than 1,100 sq m (12,000 sq. ft.) and not used for exhibition or display.
- (3) Gymnasiums, skating rinks, swimming pools used exclusively for participant sport with no audience facilities for more than 300.

(Add) **13.3.5.6** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Amd) **13.3.6 Corridors.** Interior corridors and lobbies shall be separated from use areas by fire barriers having a fire resistance rating of not less than 1 hour in accordance with 8.3, except under any of the following conditions:

- (1) Where assembly rooms served by the corridor or lobby have at least 50 per cent of their exit capacity discharging directly to the outside, independent of corridors and lobbies.
 - (2) When the building is protected throughout by an approved supervised automatic sprinkler system installed in accordance with 9.7.1.
 - (3) Where lobbies serve only one assembly area that meet the requirements of intervening rooms (See 7.5.1.2), such lobbies need not have a fire resistance rating.
 - (4) Construction for which a permit was issued prior to April 15, 1987.
- Openings in corridor partitions required to have a fire resistance rating shall be protected in accordance with 8.3.

(Amd) **13.4.5.7.6** This requirement shall not apply to proscenium fire curtains or water curtains complying with 13.4.5.7.6.1 through 13.4.5.7.6.3.

(Add) **13.4.5.7.6.1* Proscenium Opening Protection.** The proscenium opening shall be protected by a fire curtain or an approved water curtain complying with NFPA 13, Standard for the Installation of Sprinkler Systems.

(Add) **13.4.5.7.6.2** The fire curtain or water curtain shall be designed to activate upon automatic detection of a fire and upon manual activation.

(Add) **13.4.5.7.6.3**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **13.4.5.12.1** Stages over 93 m² (1000 ft²) in area shall be equipped with 38-mm (1½-in.) hose connections for first aid fire fighting at each side of the stage.

(Amd) **13.4.8.3.2** An outdoor wooden grandstand unit shall not exceed 929 m² (10,000 ft²) in ground area or 61 m (200 ft) in length, and the following requirements also shall apply:

- (1) Grandstand units of the maximum size shall be placed not less than 6100 mm (240 in.) apart or shall be separated by walls of 1-hour fire resistance rating.
- (2) The number of grandstand units erected in any one group shall not exceed three.
- (3) Each group of grandstand units shall be separated from any other group by a wall of 2-hour fire resistance-rated construction extending 610 mm (24 in.) above the seat platforms or by an open space of not less than 15 m (50 ft).

(Del) **13.7 Operating Features.** Delete section.

Chapter 14

New Educational Occupancies

(Del) **Delete Chapter.**

Chapter 15

Existing Educational Occupancies

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **15.2.2.2.3.1** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant

spaces. These doors shall not be secured from the egress side when the occupancy is open to the general public.

(Amd) **15.2.3.2 Minimum Corridor Width.** Exit access corridors shall have not less than 1830 mm (72 in.) of clear width, unless they serve an occupancy of 100 or less, then the exit access corridors shall have not less than 1120 mm (44 in.) of clear width.

(Amd) **15.2.4 Number of Exits.** Not less than two separate exits shall be as follows, except as permitted by 15.2.4.1:

- (1) Provided on every story.
- (2) Accessible from every part of every story and mezzanine.

(Add) **15.2.4.1** A one-story educational occupancy shall be permitted to have a single exit provided the occupancy has a maximum of 50 occupants and a maximum travel distance of 23 m (75 ft) to the exit.

(Amd) **15.2.5.2** No dead-end corridor shall exceed 6100 mm (240 in.), other than in buildings protected throughout by an approved, supervised, automatic sprinkler system in accordance with 9.7, in which case dead-end corridors shall not exceed 15 m (50 ft), or that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) **15.2.9.1** Emergency lighting shall be provided in accordance with section 7.9 unless otherwise permitted by either 15.2.9.2 or 15.2.9.3.

(Add) **15.2.9.3** Educational occupancies permitted to have a single means of egress in accordance with 15.2.4.1 shall not be required to have emergency lighting.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **15.2.11.1.2**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **15.3.2.1**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **15.3.5.3** Automatic sprinkler protection shall not be required where student occupancy exists below the level of exit discharge, provided that either of the following criteria are met:

- (1) Where every classroom has at least one exterior exit door at ground level.
- (2) Windows for rescue and ventilation shall be provided in accordance with 15.2.11.1.

(Add) **15.3.5.6** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **15.3.6.1** Self-closing devices may be omitted on doors between corridors and classrooms, except rooms or areas used as shops or laboratories, where the facility has a written and practiced fire exit drill policy which provides for the closing of all corridor doors upon evacuation, and where said policy provides for doors to classrooms not in use to be kept closed.

(Del) **15.7 Operating Features.** Delete section.

Chapter 16

New Day-Care Occupancies

(Del) **Delete Chapter.**

Chapter 17

Existing Day-Care Occupancies

(Amd) **17.1.1.2** The requirements of 17.1 through 17.5 and 17.7 shall apply to existing day-care occupancies in which more than 12 clients receive care, maintenance, and supervision by other than their relative(s) or legal guardian(s) for less than 24 hours per day. An existing day-care occupancy shall be permitted the option of meeting the requirements of Part III of this code in accordance with section 29-292-11e in lieu of Chapter 17. An existing day-care occupancy that meets the requirements of Part III shall be judged as meeting the requirements of Chapter 17.

(Amd) **17.1.1.3** The requirements of 17.1 (other than 17.1.6) and 17.4 through 17.7 shall apply to existing day-care homes as defined in 17.1.3. An existing day-care home shall be permitted the option of meeting the requirements of Part III of this code in accordance with section 29-292-11e in lieu of Chapter 17. An existing day-care home that meets the requirements of Part III shall be judged as meeting the requirements of Chapter 17.

(Amd) **17.1.4.3* Conversions.** A conversion from a day-care home to a day-care occupancy with more than 12 clients shall be permitted only if the day-care occupancy conforms to the requirements of Part III of this code in accordance with section 29-292-11e.

(Amd) **Table 17.1.6 Location and Construction Type Limitations**

Location of Day-Care Occupancy	Sprinklered Building	Construction Type
1 story below LED	Yes	I(443), I(332), II(222), II(111), II(000), III(211), IV(2HH), V(111)
	No	I(443), I(332), II(222), II(111), III(211), IV(2HH), V(111)
Level of exit discharge	Yes	Any type
	No	Any type
1 story above LED	Yes	Any type
	No	I(443), I(332), II(222)
	No	II(111)*, III(211)*, V(111)*
2 stories above LED	Yes	I(443), I(332), II(222)
	Yes	II(111)*, III(211)*, V(111)*
	No	I(443), I(332), II(222)
≥3 stories above LED but not high-rise	Yes	I(443), I(332), II(222)
	Yes	II(111)*
	No	I(443), I(332), II(222)
High-rise	Yes	I(443), I(332), II(222)
	No	Not permitted

LED: Level of exit discharge.

*Permitted only if clients capable of self-preservation.

(Add) **17.2.2.2.3.1** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces. These doors shall not be secured from the egress side when the occupancy is open to the general public.

(Amd) **17.2.5.2** No dead-end corridor shall exceed 6100 mm (240 in.), other than in buildings protected throughout by an approved, supervised, automatic sprinkler system in accordance with 9.7, in which case dead-end corridors shall not exceed 15 m (50 ft), or that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **17.3.2.1**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **17.3.5.4** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **17.3.6.1** Self-closing devices may be omitted on doors between corridors and client activity rooms where the facility has a written and practiced fire exit drill policy which provides for the closing of all corridor doors upon evacuation, and where said policy provides for doors to client activity rooms not in use to be kept closed.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **17.6.1.1.6** The requirements of 17.6 shall not apply to facilities located within residential living units or private dwellings and providing care, maintenance and supervision to not more than six children except that during the school year a maximum of three additional children who are in school full time shall be permitted for up to three hours before school and up to three hours after school. Such facilities are subject to the regulations adopted by the Connecticut Department of Public Health and are exempt from the requirements of this code.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **17.6.1.7** Delete section.

(Del) **17.7 Operating Features.** Delete section.

Chapter 18

New Health Care Occupancies

(Del) **Delete Chapter.**

Chapter 19

Existing Health Care Occupancies

(Amd) **19.1.1.1*** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as health care occupancies, unless the State

Fire Marshal has determined equivalent safety has been provided in accordance with 1.4.

(Del) 19.1.1.4 Additions, Conversions, Modernizations, Renovation, and Construction Operations. Delete section.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) 19.2.2.5.4 Door openings in horizontal exits shall be protected by one of the following methods:

- (1) Such door openings shall be protected by a swinging door providing a clear width of not less than 810 mm (32 in.).
- (2) Such door openings shall be protected by a horizontal sliding door that complies with 7.2.1.14 and provides a clear width of not less than 810 mm (32 in.).
- (3) Such door openings shall be protected by an existing 865-mm (34-in.) swinging door.

(Amd) 19.2.4.1 Not less than two exits of the types described in 19.2.2.2 through 19.2.2.10, remotely located from each other, shall be provided for each floor or fire section of the building, except that a single exit shall be permitted for a one-story building with a maximum occupant load of 10 persons and a maximum travel distance of 23 m (75 ft) to the exit.

(Amd) 19.2.5.10* Existing dead-end corridors shall be permitted to continue in use if it is impractical and unfeasible to alter them so that exits are accessible in not less than two different directions from all points in aisles, passageways and corridors. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) 19.2.9.1 Emergency lighting shall be provided in accordance with 7.9 unless otherwise permitted by 19.2.9.2.

(Add) 19.2.9.2 Health care occupancies permitted to have a single means of egress in accordance with section 19.2.4.1 shall not be required to have emergency lighting.

(Amd) 19.3.2.1.5

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) 19.3.5.1.1 Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Del) 19.3.5.7 Delete section.

(Amd) 19.3.6.5.2 The alternative requirements of 19.3.6.5.1 shall not apply where otherwise modified by the following:

- (1) Openings in smoke compartments containing patient bedrooms shall not be permitted to be installed in vision panels or doors without special protection.
- (2) For rooms protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.3, the aggregate area of openings per room shall not exceed 0.05 m² (0.55 ft²).

(Del) 19.7 Operating Features. Delete section.

Chapter 20

New Ambulatory Health Care Occupancies

(Del) **Delete Chapter.**

Chapter 21

Existing Ambulatory Health Care Occupancies

(Del) **21.1.1.4 Additions, Conversions, Modernizations, Renovation, and Construction Operations.** Delete section.

(Del) **21.1.6.7** Delete section.

(Add) **21.2.2.2.1** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces. These doors shall not be secured from the egress side when the occupancy is open to the general public.

(Amd) **21.2.4.1** Not less than two exits of the types described in 39.2.2 that are remotely located from each other shall be provided for each floor or fire section of the building, except that a single exit shall be permitted for a one-story building with a maximum occupant load of 10 persons and a maximum travel distance of 23 m (75 ft) to the exit.

(Amd) **21.2.9.1** Emergency lighting shall be provided in accordance with 7.9 unless otherwise permitted by 21.2.9.1.1.

(Add) **21.2.9.1.1** Ambulatory health care occupancies permitted to have a single means of egress in accordance with 21.2.4.1 shall not be required to have emergency lighting.

(Del) **21.3.5.3** Delete section.

(Del) **21.7 Operating Features.** Delete section.

Chapter 22

New Detention and Correctional Occupancies

(Del) **Delete Chapter.**

Chapter 23

Existing Detention and Correctional Occupancies

(Amd) **23.2.5.2*** Existing dead-end corridors greater than 15 m (50 ft) are undesirable and shall be altered wherever possible so that exits are accessible in not less than two different directions from all points in aisles, passageways and corridors. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Add) **23.3.2.1.1** The protection requirements of Table 23.3.2.1 shall apply to those boiler and fuel-fired heater rooms where any piece of equipment is over 400,000 Btu per hour input.

(Add) **23.3.5.1.1** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Del) **23.3.5.4** Delete section.

(Del) **23.7 Operating Features.** Delete section.

Chapter 24

One- and Two-Family Dwellings

(Amd) **24.1.1.1*** The requirements of this chapter shall apply to existing one- and two-family dwellings, which shall include those buildings containing not more than two dwelling units in which each dwelling unit is occupied by members of a single family with not more than six outsiders, if any, accommodated in rented rooms, except those occupancies classified as health care, residential board and care or detention and correctional.

Buildings which contain a maximum of two dwelling units and no other occupancies are specifically exempted by section 29-292 of the Connecticut General Statutes from the jurisdiction of this code, except for the specific smoke detection provisions set forth in 24.3.4.

(Amd) **24.1.2.2** No dwelling unit may have its sole means of escape through another dwelling unit or other occupancy.

(Add) **24.1.2.2.1** Where one or two dwelling units are present in a building containing another occupancy, each dwelling shall be provided with a primary means of escape in accordance with 24.2.2.2. If the primary means of escape consists of an interior stairway, the stairway shall be separated by at least 1/2-hour fire barriers with all openings protected by self-closing doors of an equivalent rating.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **24.3.4.3** Residential buildings designed to be occupied by one family for which a building permit for new occupancy was issued prior to October 1, 1978 are not required to comply with 24.3.4.

Chapter 25

Reserved

Chapter 26

Lodging or Rooming Houses and Bed and Breakfasts

(Amd) **26.1.1.1*** The requirements of this chapter shall apply to existing buildings or portions thereof that do not qualify as a one- or two-family dwelling that provide sleeping accommodations for a total of 16 or fewer persons on either a transient or permanent basis, with or without meals, but without separate cooking facilities for individual occupants except as provided in Chapter 24.

(Amd) **26.2.2.2** Where an interior stair connects the street floor with the story next above or below only, but not with both, the interior stair shall be required to be enclosed only on the street floor. In bed and breakfasts, this exception shall not apply to stairs below the street floor.

(Add) **26.2.3.7** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces.

(Add) **26.2.4 Illumination.** The primary means of escape within bed and breakfasts shall be provided with illumination in accordance with 7.8, unless illumination is provided upon activation of the fire alarm system or loss of power. The foot-candle values of illumination provided shall be as required by 7.9.2.1.

(Add) **26.3.1.1.4** In existing lodging or rooming houses, two or fewer stories in height, and in bed and breakfasts, stair enclosures shall not be required for levels at and above the street floor level when the building is provided with an approved household fire warning system in accordance with the requirements of NFPA 72®, National Fire Alarm Code®. This system shall consist of a control unit with smoke detectors, a manual fire alarm box on each floor level, and occupant notification with a heat detector installed in the kitchen. The kitchen shall also be separated by 1/2-hour fire-resistive construction, or shall be protected by a limited area sprinkler system, or the range top shall be protected by a listed residential range top extinguisher unit.

(Amd) **26.3.3.5.3** Each lodging or rooming house shall install a smoke alarm which, when activated, shall provide an approved visible alarm suitable to warn occupants in at least one room.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **26.3.5.4** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Add) **26.3.5.5** Portable fire extinguishers shall be required only in kitchens of bed and breakfasts. These portable fire extinguishers shall be installed and maintained in accordance with 9.7.4.1, unless the range top is protected by a listed residential range top extinguisher unit.

Chapter 27

Reserved

Chapter 28

New Hotels and Dormitories

(Del) **Delete Chapter.**

Chapter 29

Existing Hotels and Motels

(Amd) **29.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as hotel or motel occupancies.

(Del) **29.1.1.2** Delete section.

(Amd) **29.1.3 Definitions.** Terms applicable to this chapter are defined in Chapter 3 of this code and include the terms in the list that follows:

(1) Guest Room. See 3.3.100.

- (2) Guest Suite. See 3.3.101.
- (3) Hotel. See 3.3.113.

(Add) **29.2.2.2.3.1** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces.

(Amd) **29.2.4.1** In buildings other than those complying with 29.2.4.2, not less than two exits shall be provided from every floor, including floors below the level of exit discharge and occupied for public purposes.

(Amd) **29.2.4.2** Buildings of four stories or less protected throughout by an approved, supervised automatic sprinkler system in accordance with 29.3.5, with not more than four guest rooms or guest suites per floor, shall be permitted to have a single exit under the following conditions:

- (1) The stairway is completely enclosed or separated by barriers having a fire resistance rating of not less than 1 hour in accordance with 8.3.
- (2) The stairway does not serve more than one-half of a story below the level of exit discharge.
- (3) All corridors serving as access to exits have not less than a 1-hour fire resistance rating.
- (4) The travel distance from the entrance door of any guest room or guest suite to an exit does not exceed 10.7 m (35 ft).
- (5) Horizontal and vertical separation with a fire rating of not less than 1/2 hour is provided between guest rooms or guest suites.

(Amd) **29.2.5.5** Dead-end corridors shall not exceed 50 ft (15 m), except that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) **29.3.2.2.2** The areas described in Table 29.3.2.2.2 shall be protected as indicated, except that residential-type heating appliances such as domestic hot water heaters, domestic furnaces or domestic boilers may be unenclosed when located within an individual guest room or suite serving only that room or suite that is separated from all adjacent rooms or suites by construction having at least a 1/2-hour fire resistance rating.

(Amd) **Table 29.3.2.2.2 Hazardous Area Protection**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **29.3.4.4 Detection.**

(Add) **29.3.4.4.1** A corridor smoke detection system in accordance with 9.6 shall be provided, unless otherwise permitted by either of the following:

- (1) Where each guest room has direct exit to the outside of the building and the building is not over 3 stories in height.
- (2) In buildings protected throughout by an approved automatic sprinkler system in accordance with 29.3.5.

(Del) **29.3.4.5.1**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **29.3.4.5.2** Delete section.

(Amd) **29.3.5.1** An approved, supervised automatic sprinkler system shall be provided as required by 9.7.1.5.

(Del) **29.3.5.7** Delete section.

(Amd) **29.3.6.7** Transoms, louvers or transfer grilles shall be prohibited in walls or doors of exit access corridors, unless meeting 29.3.6.7.1.

(Del) **29.3.6.7.2** Delete section.

(Del) **29.3.6.7.3** Delete section.

(Del) **29.7 Operating Features.** Delete section.

Chapter 30

New Apartment Buildings

(Del) **Delete Chapter.**

Chapter 31

Existing Apartment and Dormitory Buildings

(Amd) **31.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as apartment or dormitory occupancies. In addition, the building shall meet the requirements of one of the following options:

- (1) Option 1 — Buildings without fire suppression or detection systems.
- (2) Option 2 — Buildings provided with a complete automatic fire detection and notification system.
- (3) Option 3 — Buildings provided with automatic sprinkler protection in selected areas.
- (4) Option 4 — Buildings protected throughout by an approved automatic sprinkler system.

(Add) **31.1.1.3** All buildings containing three or more individual living units shall be classified as apartment buildings, except where the building and living unit arrangement is in accordance with items numbered (1) through (4) of this section, then the entire building shall be exempt from the requirements of this chapter and the individual living units need only comply with the requirements for smoke alarms in 31.3.4.5 and each living unit shall be treated as a single family home for the purposes of section 29-305 of the Connecticut General Statutes:

- (1) Residential buildings containing three or more individual living units, in which the living units are arranged so that no living unit is located either above or below another living unit.
- (2) Each living unit has at least one independent exit, serving that unit only which leads directly to the exterior of the building in one of the following manners:
 - (a) An exit door opening directly to the street or yard at ground level.
 - (b) An outside stair leads directly to the street or yard at ground level.
 - (c) An interior stair that is part of the living unit served that leads directly to the street or yard at ground level.
- (3) Each living unit is separated from the adjoining unit by vertical fire barriers having at least a 1-hour fire resistance rating. Such walls shall extend from the lowest floor slab to the underside of the highest roof deck and shall be continuous through all spaces below the living unit such as basements and

crawl spaces and all areas above the living unit, such as attics or other concealed spaces.

- (4) There are no spaces within the confines of the building's exterior perimeter walls that are subject to common occupant usage including, but not limited to, corridors, hallways, laundry rooms, furnace or utility rooms, storage areas or recreation areas.

(Amd) **31.1.2.3** Multiple dwelling units shall be permitted to be located above a nonresidential occupancy only where one of the following conditions exists:

- (1) Where the dwelling units of the residential occupancy and exits therefrom are separated from the nonresidential occupancy by construction having a fire resistance rating of not less than 1 hour.
- (2) Where the nonresidential occupancy is protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.
- (3) Where the dwelling units are located above a nonresidential occupancy that is protected by an automatic fire detection system in accordance with 9.6.

(Add) **31.1.3.3 Dormitory.** See 3.3.48.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **31.2.2.2.3.1** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces.

(Amd) **31.2.4.2** Any dwelling unit shall be permitted to have a single exit, provided that one of the following criteria is met:

- (1) The dwelling unit has an exit door opening directly to the street or yard at ground level.
- (2) The dwelling unit has direct access to an outside stair complying with 7.2.2.
- (3) The dwelling unit has direct access to an interior stair that serves only that unit and is separated from all other portions of the building by fire barriers having not less than a 1-hour fire resistance rating with no opening therein.

(Amd) **31.2.4.3** Any building of four stories or less protected throughout by an approved, supervised automatic sprinkler system in accordance with 31.3.5.3 shall be permitted to have a single exit, provided the following conditions are met:

- (1) The stairway is separated from the rest of the building by barriers having not less than a 1-hour fire resistance rating in accordance with 8.3.
- (2) The stairway does not serve more than one-half of a story below the level of exit discharge.
- (3) All corridors serving as access to exits have not less than a 1/2-hour fire resistance rating.
- (4) There is not more than 15 m (50 ft) of travel distance from the entrance door of any dwelling unit to an exit.
- (5) Horizontal and vertical separation with a fire rating of not less than 1/2 hour is provided between dwelling units.

(Amd) **31.2.4.4** Any building of three stories or less in its entirety shall be permitted to have a single exit, provided the following conditions are met:

- (1) The stairway is separated from the rest of the building by barriers having not less than a 1-hour fire resistance rating in accordance with 8.3.

- (2) The stairway does not serve more than one-half of a story below the level of exit discharge.
- (3) All corridors serving as access to exits have not less than a 1/2 hour fire resistance rating.
- (4) The travel distance from the entrance door of any dwelling to an exit does not exceed 15 m (50 ft).
- (5) Horizontal and vertical separation with a fire rating of not less than 1/2 hour is provided between dwelling units.

(Amd) **31.2.5.4** Dead-end corridors shall not exceed 15 m (50 ft), except that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Add) **31.3.2.1.1.1** Residential-type heating appliances such as domestic hot water heaters, domestic furnaces or domestic boilers may be unenclosed when located within an individual living unit and serving that living unit only.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **31.3.2.1.1.2**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **31.3.4.3.5** Delete section.

(Amd) **31.3.4.5.1** Approved single-station smoke alarms shall be installed in accordance with 9.6.2.10, outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit, including basements.

(Del) **31.3.4.5.2** Delete section.

(Amd) **31.3.5.6** Buildings using Option 3 shall be provided with the following:

- (1) Automatic sprinklers in the corridor along the corridor ceiling.
- (2) An automatic sprinkler within any dwelling unit that opens into the corridor, with such sprinkler positioned over the center of the door.

(Amd) **31.3.5.10** All high-rise buildings as required by 9.7.1.5, shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 31.3.5.3.

(Del) **31.3.5.10.1** Delete section.

(Del) **31.3.5.10.2** Delete section.

(Del) **31.3.5.10.3** Delete section.

(Del) **31.3.5.11** Delete section.

(Amd) **31.3.6.6** Spaces shall be permitted to be unlimited in area and open to the corridor, provided that the following criteria are met:

- (1) The spaces are not used for dwelling units or hazardous areas.
- (2) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 31.3.5.3.
- (3) The space does not obstruct access to required exits.

(Del) **31.7 Operating Features.** Delete section.

Chapter 32

New Residential Board and Care Occupancies

(Del) **Delete Chapter.**

Chapter 33

Existing Residential Board and Care Occupancies

(Del) **33.1.1.2*** Delete section.

(Del) **33.1.1.4 Conversion.** Delete section.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **33.2.2.4.8** Stairs shall be permitted to be open at the topmost story only where all of the following are met:

- (1) The building shall have three or fewer stories.
- (2) The building shall contain prompt or slow evacuation capability facilities.
- (3) The building shall be protected by an approved automatic sprinkler system in accordance with 33.2.3.5.
- (4) The entire primary means of escape of which the stairs are a part shall be separated from all lower stories.

(Amd) **33.2.2.5.6.1** Delayed egress locks complying with 7.2.1.6.1 shall be permitted. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.

(Add) **33.2.2.5.6.2** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces.

(Amd) **33.2.3.4.3.1** Approved smoke alarms shall be provided in accordance with 9.6.2.10.

(Del) **33.2.3.4.3.5** Delete section.

(Del) **33.2.3.4.3.6** Delete section.

(Add) **33.3.2.2.2.1** Where permitted by 33.3.2.2.2, access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces.

(Amd) **33.3.2.5.4** Dead-end corridors shall not exceed 15 m (50 ft), except that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) **33.3.2.6.2** Travel distance from the door within a room, suite, or living unit to a corridor door shall not exceed 38 m (125 ft) in buildings protected throughout by an approved automatic sprinkler system in accordance with 33.3.3.5.

(Amd) **33.3.3.2.2**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **33.3.3.4.7 Smoke Alarms.** Smoke alarms shall be provided in accordance with 33.3.3.4.7.1.

(Del) **33.3.3.4.7.2** Delete section.

(Del) **33.3.3.4.7.3** Delete section.

(Add) **33.3.3.5.2.1** Automatic sprinkler protection installed in accordance with 33.3.3.5 shall also be provided as required by 9.7.1.5.

(Del) **33.3.3.5.6** Delete section.

(Del) **33.7 Operating Features.** Delete section.

Chapter 34

Reserved

Chapter 35

Reserved

Chapter 36

New Mercantile Occupancies

(Del) **Delete Chapter.**

Chapter 37

Existing Mercantile Occupancies

(Amd) **37.1.2.2.1** The fire barrier separating parking structures from a building classified as a mercantile occupancy shall be a fire barrier having a fire resistance rating of not less than 2 hours, or 1 hour when both structures are protected throughout by an automatic sprinkler system in accordance with 9.7.1.1(1).

(Amd) **37.2.2.2.5** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces. The entrance doors shall not be secured from the egress side when the occupancy is open to the general public.

(Amd) **37.2.4 Number of Exits.**

(Add) **37.2.4.1**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Add) **37.2.4.2** Exit access required by 37.2.4.1(3) shall be permitted to include a single exit access path for the distances permitted as common paths of travel by 37.2.5.3.

(Add) **37.2.4.3** A single means of egress shall be permitted in a Class C mercantile occupancy, provided the travel distance to the exit or to a mall does not exceed 23 m (75 ft).

(Add) **37.2.4.4** A single means of egress shall be permitted in a Class C mercantile occupancy, provided the travel distance to the exit or to a mall does not exceed 30 m (100 ft), and the story on which the occupancy is located and all communicating levels that are traversed to reach the exit or mall are protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

(Add) **37.2.4.5** A single means of egress to an exit or to a mall shall be permitted from a mezzanine within any Class A, Class B or Class C mercantile occupancy,

provided that the common path of travel does not exceed 23 m (75 ft), or does not exceed 30 m (100 ft) if protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

(Add) **37.2.4.6** A single exit shall be permitted for a maximum two-story single tenant space/building that has a maximum area per floor of 160 m² (1,500 ft²) and is protected throughout by an automatic fire detection system that includes smoke detection in all occupied spaces and heat detection in hazardous and unoccupied areas. Each occupied room on the second floor of the space/building shall be provided with a secondary means of escape in accordance with 24.2.2.3. The total travel to the outside shall not exceed 23 m (75 ft).

(Amd) **37.2.5.2*** Dead-end corridors shall not exceed 15 m (50 ft), except that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) **37.2.6.2** In buildings not complying with 37.2.6.1, the travel distance shall not exceed 61 m (200 ft).

(Amd) **37.3.2.1.1**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **37.3.3.2.1** Interior wall and ceiling finish materials complying with 10.2 shall be Class A or B. Class C interior finish materials shall be permitted within rooms and spaces enclosed by partitions.

(Amd) **37.3.5.2** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Del) **37.3.5.3** Delete section.

(Amd) **37.3.6 Corridors.** Where access to exits is limited to corridors, such corridors shall be separated from use areas by fire barriers having a fire resistance rating of not less than 1 hour in accordance with 8.3, except under any of the following conditions:

- (1) Where exits are available from an open floor area.
- (2) Within a space occupied by a single tenant.
- (3) When the building is protected throughout by an approved supervised automatic sprinkler system installed in accordance with 9.7.1.
- (4) Building construction for which a permit was issued prior to April 15, 1987. Openings in corridor partitions required to have a fire resistance rating shall be protected in accordance with 8.3.

(Amd) **37.4.4.4.1 General.** Mall buildings shall be provided with a fire alarm system in accordance with 9.6.

(Amd) **37.4.4.4.3.1 Occupant Notification.** During all times that the mall building is occupied, the required fire alarm system, once initiated, shall perform one of the following:

- (1) It shall activate a general alarm in accordance with 9.6.3 throughout the mall building.
- (2) Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
- (3) It shall activate an alarm signal in a continuously attended location for the purpose of initiating emergency action by personnel trained to respond to emergencies. Emergency action shall be initiated by means of live voice

public address system announcements originating from the attended location where the alarm signal is received. The live public address system shall be permitted to be used for other announcements, provided the emergency action use takes precedence over any other use.

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Del) **37.4.5.6** Delete section.

(Del) **37.7 Operating Features.** Delete section.

Chapter 38

New Business Occupancies

(Del) **Delete Chapter.**

Chapter 39

Existing Business Occupancies

(Amd) **39.1.2.2.1** The fire barrier separating parking structures from a building classified as a business occupancy shall be a fire barrier having a fire resistance rating of not less than 2 hours, or 1 hour when both structures are protected throughout by an automatic sprinkler system in accordance with 9.7.1.1(1).

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **39.2.2.2.5** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in the means of egress on the entrance doors to buildings and to tenant spaces. The entrance doors shall not be secured from the egress side when the occupancy is open to the general public.

(Amd) **39.2.4.1**

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **39.2.4.2** Exit access as required by 39.2.4.1(3) shall be permitted to include a single exit access path for the distances permitted for common paths of travel by 39.2.5.3.

(Add) **39.2.4.3** A single exit shall be permitted for a room or area with a total occupant load of fewer than 100 persons, provided that the following criteria are met:

- (1) The exit shall discharge directly to the outside at the level of exit discharge for the building.
- (2) The total distance of travel from any point, including travel within the exit, shall not exceed 30 m (100 ft).
- (3) Such travel shall be on the same floor level or, if traversing of stairs is necessary, such stairs shall not exceed 4570 mm (180 in.) in height, and the stairs shall be provided with complete enclosures to separate them from any other part of the building, with no door openings therein. A communicating door shall be permitted in the exit stair enclosure at the level of exit discharge if the floor level of the communicating opening is protected throughout by either an automatic sprinkler system or fire detection system consisting of smoke detection that provides an alarm on the floor level served by the single exit.

- (4) A single outside stair in accordance with 7.2.2 shall be permitted to serve all floors within the 4570 mm (180 in.) vertical travel limitation.

(Add) **39.2.4.4** Any business occupancy not exceeding three stories, and not exceeding an occupant load of 30 people per floor, shall be permitted a single separate exit to each floor, provided the following criteria are met:

- (1) This arrangement shall be permitted only where the total travel distance to the outside of the building does not exceed 30 m (100 ft) and where the exit is enclosed in accordance with 7.1.3.2, serves no other levels, and discharges directly to the outside. A communicating door shall be permitted in the exit stair enclosure at the level of exit discharge if the floor level of the communicating opening is protected throughout by either an automatic sprinkler system or fire detection system consisting of smoke detection that provides an alarm on the floor level served by the single exit.
- (2) A single outside stair in accordance with 7.2.2 shall be permitted to serve all floors.

(Add) **39.2.4.5** A single means of egress shall be permitted from a mezzanine within a business occupancy, provided that the common path of travel does not exceed 23 m (75 ft), or 30 m (100 ft) if protected throughout by an approved automatic sprinkler system installed in accordance with 9.7.1.1(1).

(Add) **39.2.4.6** A single exit shall be permitted for a maximum two-story single tenant space/building that is protected throughout by an approved automatic sprinkler system installed in accordance with 9.7.1.1(1) and where the total travel to the outside does not exceed 30 m (100 ft).

(Add) **39.2.4.7** A single exit shall be permitted for a maximum two-story single tenant space/building that has a maximum area per floor of 160 m² (1,500 ft²) and is protected throughout by an automatic fire detection system that includes smoke detection in all occupied spaces and heat detection in hazardous and unoccupied areas. Each occupied room on the second floor of the space/building shall be provided with a secondary means of escape in accordance with 24.2.2.3. The total travel to the outside shall not exceed 23 m (75 ft).

(Amd) **39.2.5.2*** Dead-end corridors shall not exceed 15 m (50 ft), except that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) **39.3.2.1***

See the 2009 Amendment to the 2005 CT State Fire Safety Code.

(Amd) **39.3.5.1 Extinguishment Requirements.** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Amd) **39.3.6. Corridors.** Where access to exits is limited to corridors, such corridors shall be separated from use areas by fire barriers having a fire resistance rating of not less than 1 hour in accordance with 8.3, except under any of the following conditions:

- (1) Where exits are available from an open floor area.
- (2) Within a space occupied by a single tenant.
- (3) When the building is protected throughout by an approved supervised automatic sprinkler system installed in accordance with 9.7.1.

(4) Buildings constructed Building construction for which a building permit was issued prior to September 1, 1981.

Openings in corridor partitions required to have a fire resistance rating shall be protected in accordance with 8.3.

(Del) **39.7 Operating Features.** Delete section.

Chapter 40

Industrial Occupancies

(Amd) **40.1.1.1** The requirements of this chapter shall apply to existing industrial occupancies. Pursuant to the requirements of section 29-292 of the Connecticut General Statutes, the requirements of this chapter shall not apply to buildings, or portions thereof, utilized for the manufacture of products or goods.

(Amd) **40.2.4.1** The number of means of egress shall comply with either 40.2.4.1.1, 40.2.4.1.2 or 40.2.4.1.3.

(Amd) **40.2.4.1.2** A single means of egress shall be permitted from any story or section in low and ordinary hazard industrial occupancies, provided the following limits are not exceeded:

- (1) One story, 30 occupants and 100 ft (30 m) maximum travel distance.
- (2) Two story, 30 occupants and 75 ft (23 m) maximum travel distance.

(Add) **40.2.4.1.3** In low and ordinary hazard industrial occupancies existing prior to May 7, 2000, a single means of egress shall be permitted from any story or section, provided that the exit can be reached within the distance permitted as a common path of travel.

(Amd) **40.2.5 Arrangement of Means of Egress.** Means of egress, arranged in accordance with section 7.5, shall not exceed that provided by Table 40.2.5, except that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) **40.3.5** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Amd) **40.4 Special Provisions; High-Rise Buildings.** Automatic sprinkler protection shall also be provided as required by 9.7.1.5 and 11.8.2.1.

Chapter 41

Reserved

Chapter 42

Storage Occupancies

(Amd) **42.1.1.1** The requirements of this chapter shall apply to existing storage occupancies.

(Amd) **42.2.4.1** The number of means of egress shall comply with 42.2.4.1(1), 42.2.4.1(2), 42.2.4.1(3) or 42.2.4.1(4).

- (1) In low and ordinary hazard storage occupancies, a single means of egress shall be permitted from any story or section provided the following limits are not exceeded:

- (a) One story, 30 occupants and 100 ft (30 m) maximum travel distance; or
- (b) Two story, 30 occupants and 75 ft (23 m) maximum travel distance.
- (2) In low hazard storage occupancies existing prior to May 7, 2000, a single means of egress shall be permitted from any story or section.
- (3) In ordinary hazard storage occupancies existing prior to May 7, 2000, a single means of egress shall be permitted from any story or section, provided that the exit can be reached within the distance permitted as a common path of travel.
- (4) All buildings or structures not complying with 42.2.4.1(1) 42.2.4.1(2) or 42.2.4.1(3) and used for storage, and every section thereof considered separately, shall have not less than two separate means of egress as remotely located from each other as practicable.

(Amd) **42.2.5.1** Means of egress, arranged in accordance with 7.5, shall not exceed that provided by Table 42.2.5.1, except that a dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

(Amd) **42.2.6* Travel Distance to Exits.** Travel distance, measured in accordance with 7.6, shall not exceed that provided by Table 42.2.6, except existing low hazard storage shall have no limits.

(Amd) **Table 42.2.6 Maximum Travel Distance to Exits**

Level of Protection	Low Hazard Storage Occupancy	Ordinary Hazard Storage Occupancy	High Hazard Storage Occupancy
Protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1)	122 m (400 ft)	122 m (400 ft)	30 m (100 ft)
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1)	91 m (300 ft)	61 m (200 ft)	23 m (75 ft)
Flammable and combustible liquid products stored and protected in accordance with NFPA 30, Flammable and Combustible Liquids Code.	Not applicable	Not applicable	46 m (150 ft)

(Amd) **42.3.5** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Amd) **42.8.3.5** Automatic sprinkler protection shall also be provided as required by 9.7.1.5.

(Add) **42.8.3.5.1** When open-air parking structures, or open-air facilities are located within mixed occupancy buildings they shall be protected throughout by an approved, automatic sprinkler system when the other occupancy requires such protection throughout the building, unless the provisions of 42.8.3.5.2 are met.

(Add) **42.8.3.5.2** Those portions of a building deemed “open-air parking” shall not be required to be protected by automatic sprinklers if all of the following conditions are met:

- (1) Used only for the parking or storage of passenger motor vehicles designed to carry not more than nine persons.
- (2) There are no provisions for vehicle repair or fuel dispensing.
- (3) The open parking structure and other occupancy shall be separated, both horizontally and vertically, by fire resistive separation assemblies having at least a 2-hour fire resistance rating and may have openings as permitted by the exceptions to 37.1.2.2 and 39.1.2.2.
- (4) Means of egress for the other occupancy shall be separated from the parking area by fire barriers having at least a 2-hour fire resistance rating.

(Adopted effective December 31, 2005)

Secs. 29-292-22e—29-292-25e.

Repealed, October 2, 2012.

EDITOR'S NOTE: Pages 65–86 of Section 29-292 are left blank by the repeal of Sections 29-292-22e through 29-292-25e on October 2, 2012, and are purposely omitted.

**2009 AMENDMENT
TO THE 2005 CT STATE FIRE SAFETY CODE**

NOTES:

With respect to sections of the adopted referenced standards that were changed, the following applies:

A section or subsection preceded by "AMD" indicates the substitution of this provision in the adopted referenced standard.

A section or subsection preceded by "DEL" indicates the deletion of this provision from the adopted referenced standard.

A section or subsection preceded by "ADD" indicates the addition of this provision to the adopted referenced standard.

PART I ~ ADMINISTRATION**29-292-1e. The Connecticut State Fire Safety Code: Title and Applicability**

- (a) The regulations of the Department of Public Safety, sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies and their adopted standards, shall be known as the Connecticut State Fire Safety Code, hereinafter referred to as "the code" or "this code".
- (1) Severability. If a section, subsection, sentence, clause or phrase of this code is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code.
 - (2) Validity. In the event any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions hereof, which are determined to be legal; and it shall be presumed that this code would have been adopted without such illegal or invalid parts or provisions.
 - (3) Provisions in excess of code requirements. Nothing in this code shall be construed to prohibit a better type of building construction, an additional means of egress, or an otherwise safer condition than that specified by the minimum requirements of this code.
- (b) Sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies shall apply to all buildings and areas adjacent thereto except premises used for manufacturing.

The provisions of the code shall only apply to detached private dwellings occupied by one or two families and townhouses with respect to smoke alarms and carbon monoxide detectors as specified by the State Building Code.

Buildings designed, constructed and occupied in accordance with the provisions of the International Residential Code® shall be deemed single-family dwellings for the application of this code and section 29-305 of the Connecticut General Statutes.

- (c) The provisions of sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies shall only apply to temporary tents, temporary portable shelters and temporary tension-membrane structures as defined in Section 2401.2 of section 29-292-17e of the Regulations of Connecticut State Agencies to the extent called for by the regulations adopted under the authority of section 29-140 of the Connecticut General Statutes, known as the Connecticut Tent and Portable Shelter Code.
- (d) The provisions of sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies shall not apply to portable grandstand and bleachers providing seating for fewer than 100 persons located outside of a building.
- (e) The provisions of sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies shall not apply to any federal agency performing construction or operating on federally owned land or on leased land totally under the control of the federal government.

29-292-3e. Authority Having Jurisdiction

- (a) For the purposes of the regulations adopted by reference under section 29-292 of the Connecticut General Statutes, the authority having jurisdiction shall mean the State Fire Marshal regarding the proper administration, application, interpretation and modification of the requirements contained within sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies.
- (b) The local fire marshal shall make the initial determination concerning compliance with sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies, except as expressly provided in the wording of a section or in subsection (c) of this section. A decision of a local fire marshal may be appealed to the State Fire Marshal as provided in subsection (a) of 29-292-3e.

- (c) The State Fire Marshal shall make the determination concerning compliance with sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies on state-owned property.
- (d) A decision of the local fire marshal or State Fire Marshal may be appealed to the Codes and Standards Committee in accordance with section 29-309 of the Connecticut General Statutes.

29-292-7e. Inspections

- (a) Each local fire marshal, the State Fire Marshal and their respective designees shall conduct inspections as prescribed in section 29-305 of the Connecticut General Statutes of buildings and facilities regulated by sections 29-292-1e to 29-292-21e, inclusive, of the Regulations of Connecticut State Agencies within their jurisdictions.
- (b) Each local fire marshal, the State Fire Marshal and their respective designees may conduct inspections as often as may be necessary during the construction of new buildings, structures or additions, and during the course of renovations, alterations or modernizations for the purpose of satisfying themselves that all work is in accordance with the approved plans, specifications and this Code.
- (c) The minimum requirements for the frequency of inspections as prescribed in section 29-305 of the Connecticut General Statutes shall be as follows:
 - (1) Annual inspections for the occupancy classifications, all R Residential, A-1, A-2, E, H-1, I-1.
 - (2) Inspections every two years for the occupancy classifications, A-3, H-2, I-2, I-3, I-4, B-Medical, B-College.
 - (3) Inspections every three years for occupancy classifications B, H-3, M, S-1, A-4, A-5.
 - (4) Inspections every four years for the occupancy classifications, F-1, F-2, H-4, H-5, S-2, U.

29-292-10e. Application

- (a) The provisions of Part I and Part II of this code shall apply to all occupancies and uses located within a building or structure.
- (b) For building permit applications made on or after the effective date of this code, the provisions of Part III of this code shall apply to:
 - (1) The design and construction of new buildings and structures, and

- (2) Buildings undergoing repairs, alterations and additions, and
- (3) Buildings and structures undergoing a change of occupancy or use as specified in section 29-292-11e of the Regulations of Connecticut State Agencies.
- (4) For existing occupancies subject to an abatement order for violations of Part IV of this code, only new fire protection, electrical and mechanical system work shall be subject to the requirements of Part III.

(c) The provisions of Part IV of this code shall only apply to existing occupancies and uses located within existing buildings and structures.

PART II ~ GENERAL

Sec. 29-292-13e. Referenced Publications

The documents or portions thereof listed in this section are referenced within this code and shall be considered part of the requirements of this code to the extent called for by this code.

The Connecticut State Fire Safety Code recognizes that it is sometimes impractical to continually upgrade existing buildings or installations to comply with all the requirements of the following referenced publications. Existing buildings or installations that do not comply with the provisions of the following referenced publications shall be permitted to be continued in service, provided the lack of conformity with these standards does not present a serious hazard to occupants as determined by the authority having jurisdiction.

ICC	International Code Council, Inc. 4051 W. Flossmoor Rd. Country Club Hills, IL 60478-5795
<i>Standard reference number</i>	<i>Title</i>
ICC/ANSI A117.1—03	Accessible and Usable Buildings and Facilities
ICC 300—02	ICC Standard on Bleachers, Folding and Telescopic Seating, and Grandstands
IEBC—03	International Existing Building Code™
IECC—06	International Energy Conservation Code®
IMC—03	International Mechanical Code®

IPC—03	International Plumbing Code ®
SBCCI SSTD 10—99	Standard for Hurricane Resistant Residential Construction
SBCCI SSTD 11—97	Test Standard for Determining Wind Resistance of Concrete or Clay Roof Tiles
UBC Standard 18—2	Expansion Index Test
NFPA	National Fire Protection Association 1 Batterymarch Park PO Box 9101 Quincy, MA 02269-9101
<i>Standard reference number</i>	<i>Title</i>
NFPA 10	Standard for Portable Fire Extinguishers, 2002 edition
NFPA 11	Standard for Low-, Medium-, and High-Expansion Foam, 2002 edition
NFPA 11A	Standard for Medium- and High-Expansion Foam Systems, 1999 edition
NFPA 12	Standard on Carbon Dioxide Extinguishing Systems, 2000 edition
NFPA 12A	Standard on Halon 1301 Fire Extinguishing Systems, 2004 edition
NFPA 13	Standard for the Installation of Sprinkler Systems, 2002 edition
NFPA 13D	Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, 2002 edition
NFPA 13R	Standard for the Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height, 2002 edition
NFPA 14	Standard for the Installation of Standpipe and Hose Systems, 2003 edition
NFPA 16	Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems, 2003 edition
NFPA 17	Standard for Dry Chemical Extinguishing Systems, 2002 edition
NFPA 17A	Standard for Wet Chemical Extinguishing Systems, 2002 edition
NFPA 20	Standard for the Installation of Stationary Pumps for Fire Protection, 1999 edition
NFPA 25	Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2002 edition

NFPA 30	Flammable and Combustible Liquids Code - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes, known as the Connecticut Flammable and Combustible Liquids Code
NFPA 30B	Code for the Manufacture and Storage of Aerosol Products, 2002 edition
NFPA 31	Standard for the Installation of Oil-Burning Equipment - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-317 of the Connecticut General Statutes, known as the Connecticut Oil-Burning Equipment Code
NFPA 32	Standard for Drycleaning Plants, 2004 edition
NFPA 40	Standard for the Storage and Handling of Cellulose Nitrate Motion Picture Film, 2001 edition
NFPA 45	Standard on Fire Protection for Laboratories Using Chemicals, 2000 edition
NFPA 54	National Fuel Gas Code - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-329 of the Connecticut General Statutes, known as the Connecticut Gas Equipment and Piping Code
NFPA 58	Standard for the Storage and Handling of Liquefied Petroleum Gases - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-331 of the Connecticut General Statutes, known as the Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code
NFPA 61	Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities, 2002 edition
NFPA 70	National Electrical Code®, 2005 edition as amended by the State Building Code
NFPA 72®	National Fire Alarm Code®, 2002 edition
NFPA 80	Standard for Fire Doors and Fire Windows, 1999 edition
NFPA 82	Standard on Incinerators and Waste and Linen Handling Systems and Equipment, 1999 edition
NFPA 85	Boiler and Combustion Systems Hazards Code, 2004 edition
NFPA 88A	Standard for Parking Structures, 2002 edition
NFPA 90A	Standard for the Installation of Air Conditioning and Ventilating Systems, 2002 edition

NFPA 90B	Standard for the Installation of Warm Air Heating and Air Conditioning Systems, 2002 edition
NFPA 91	Standard for Exhaust Systems for Air Conveying of Materials, 1999 edition
NFPA 96	Standard on Ventilation Control and Fire Protection of Commercial Cooking Operations, 2001 edition
NFPA 99	Standard for Health Care Facilities, 2002 edition
NFPA 101A	Guide on Alternative Approaches to Life Safety, 2001 edition
NFPA 110	Standard for Emergency and Standby Power Systems, 2002 edition
NFPA 111	Standard on Stored Electrical Energy Emergency and Standby Power Systems, 2001 edition
NFPA 120	Standard for Coal Preparation Plants, 2004 edition
NFPA 160	Standard for Flame Effects Before an Audience, 2001 edition
NFPA 211	Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances, 2003 edition
NFPA 220	Standard on Types of Building Construction, 1999 edition
NFPA 221	Standard for Fire Walls and Fire Barrier Walls, 2000 edition
NFPA 230	Standard for the Fire Protection of Storage, 2003 edition
NFPA 231C	Standard for the Rack Storage of Materials, 1998 edition – See NFPA 13
NFPA 241	Standard for Safeguarding Construction, Alteration, and Demolition Operations, 2000 edition
NFPA 251	Standard Methods of Fire Tests of Building Construction and Materials, 1999 edition
NFPA 252	Standard Methods of Fire Tests of Door Assemblies, 2003 edition
NFPA 253	Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source, 2000 edition
NFPA 255	Standard Method of Test of Surface Burning Characteristics of Building Materials, 2000 edition
NFPA 256	Standard Methods of Fire Tests of Roof Coverings, 1998 edition
NFPA 257	Standard for Fire Tests of Window and Glass

	Block Assemblies, 2000 edition
NFPA 259	Standard Test Method for Potential Heat of Building Materials, 2003 edition
NFPA 260	Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture, 1998 edition
NFPA 261	Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes, 1998 edition
NFPA 265	Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls, 2002 edition
NFPA 267	Standard Method of Test for Fire Characteristics of Mattresses and Bedding Assemblies Exposed to Flaming Ignition Source, 1998 edition
NFPA 268	Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source, 2001 edition
NFPA 285	Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components Using the Intermediate-Scale, Multistory Test Apparatus, 1998 edition
NFPA 286	Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth, 2000 edition
NFPA 288	Standard Methods of Fire Tests of Floor Fire Door Assemblies Installed Horizontally in Fire Resistance-Rated Floor Systems, 2001 edition
NFPA 409	Standard on Aircraft Hangars, 2004 edition
NFPA 418	Standard for Heliports, 2001 edition
NFPA 430	Code for the Storage of Liquid and Solid Oxidizers, 2000 edition
NFPA 432	Code for the Storage of Organic Peroxide Formulations, 2002 edition
NFPA 434	Code for the Storage of Pesticides, 2002 edition
NFPA 651	Standard for the Machining and Finishing of Aluminum and the Production and Handling of Aluminum Powders, 1998 edition
NFPA 654	Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible

	Particulate Solids, 2000 edition
NFPA 655	Standard for Prevention of Sulfur Fires and Explosions, 2001 edition
NFPA 664	Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities, 2002 edition
NFPA 701	Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2004 edition
NFPA 703	Standard for Fire Retardant Impregnated Wood and Fire Retardant Coatings for Building Materials, 2000 edition
NFPA 704	Standard System for the Identification of the Hazards of Materials for Emergency Response, 2001 edition
NFPA 1124	Standard for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles, 2006 edition
NFPA 1126	Standard for the Use of Pyrotechnics before a Proximate Audience, 2001 edition
NFPA 1600	Standard on Disaster/Emergency Management and Business Continuity Programs, 2004 edition
NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems, 2004 edition
ASME	American Society of Mechanical Engineers Three Park Avenue New York, NY 10016-5990
<i>Standard reference number</i>	<i>Title</i>
ASME A17.1	Safety Code for Elevators and Escalators - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-192 of the Connecticut General Statutes, known as the Connecticut Safety Code for Elevators and Escalators.
ASME A17.3	Safety Code for Existing Elevators and Escalators - See the Regulations of Connecticut State Agencies adopted under the authority of section 29-192 of the Connecticut General Statutes, known as the Connecticut Safety Code for Elevators and Escalators.

REGULATIONS OF CONNECTICUT STATE AGENCIES	State of Connecticut Department of Public Safety 1111 Country Club Road Middletown, CT 06457-2389
State Building Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-252 of the Connecticut General Statutes.	
Connecticut Fireworks and Special Effects Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-357 of the Connecticut General Statutes.	
Connecticut Flammable and Combustible Liquids Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-320 of the Connecticut General Statutes.	
Connecticut Oil Burning Equipment Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-317 of the Connecticut General Statutes.	
Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-331 of the Connecticut General Statutes.	
Connecticut Gas Equipment and Piping Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-329 of the Connecticut General Statutes.	
Connecticut Safety Code for Elevators and Escalators. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-192 of the Connecticut General Statutes.	
Connecticut Tent and Portable Shelter Code. See the Regulations of Connecticut State Agencies adopted under the authority of section 29-140 of the Connecticut General Statutes.	

PART III ~ NEW CONSTRUCTION, RENOVATIONS, OR CHANGE OF USE

Sec. 29-292-15e. Alternative Compliance

Any building or structure, or portion thereof, evaluated and determined to be in compliance with the International Existing Building Code[®], as adopted and amended by the State Building Code, or Chapter 34 of the State Building Code, shall be deemed in compliance with Part III of the Connecticut State Fire Safety Code. Those portions of an existing building or structure not affected by alteration, addition or change of occupancy shall comply with Part IV of this code.

The definition of **Occupancy Classification** found in Chapter 2, Section 202, of the Connecticut State Fire Safety Code is amended to read:

SECTION 202 GENERAL DEFINITIONS

(Amd) **OCCUPANCY CLASSIFICATION.** For the purposes of this code, certain occupancies are defined as follows:

Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering together of persons for purposes such as civic, social or religious functions, recreation, food or drink consumption or awaiting transportation. A room or space used for assembly purposes by less than 50 persons and accessory to another occupancy shall be included as part of that occupancy. Assembly areas with less than 750 square feet (69.7 m²) and which are accessory to another occupancy according to Section 302.2.1 of the International Building Code are not assembly occupancies, unless they are classified as Special Amusement Buildings as defined by Section 401.11. Assembly occupancies which are accessory to Group E in accordance with Section 302.2 of the International Building Code are not considered assembly occupancies. Religious educational rooms and religious auditoriums which are accessory to churches in accordance with Section 302.2 of the International Building Code and which have occupant loads of less than 100 shall be classified as A-3. A building or tenant space used for assembly purposes by less than 50 persons shall be considered a Group B occupancy, unless they are classified as Special Amusement Buildings as defined by Section 401.11. Assembly occupancies shall include the following:

A-1 Assembly uses, usually with fixed seating, intended for the production and viewing of performing arts or motion pictures, including but not limited to:

- Motion picture theaters;
- Symphony and concert halls;
- Television and radio studios admitting an audience;
- Theaters.

A-2 Assembly uses intended for food or drink consumption including, but not limited to:

- Banquet halls;
- Night clubs;
- Restaurants;
- Taverns and bars.

A-3 Assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A, including, but not limited to:

- Amusement arcades;
- Art galleries;

- Bowling alleys;
- Churches;
- Community halls;
- Courtrooms;
- Dance halls (not including food or drink consumption);
- Exhibition halls;
- Funeral parlors;
- Gymnasiums (without spectator seating);
- Indoor swimming pools (without spectator seating);
- Indoor tennis courts (without spectator seating);
- Lecture halls;
- Libraries;
- Museums;
- Waiting areas in transportation terminals;
- Pool and billiard parlors.

A-4 Assembly uses intended for viewing of indoor sporting events and activities including, but not limited to:

- Arenas;
- Skating rinks;
- Swimming pools;
- Tennis courts.

A-5 Assembly uses intended for participation in or viewing outdoor activities including, but not limited to:

- Amusement park structures;
- Bleachers;
- Grandstands;
- Stadiums.

Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

- Airport traffic control towers;
- Animal hospitals, kennels, pounds;
- Banks;
- Barber and beauty shops;
- Buildings or tenant spaces used for assembly purposes by fewer than 50 persons when they are not accessory to other occupancies;
- Car wash;
- Civic administration;
- Clinic – outpatient;
- Dry cleaning and laundries; pick-up and delivery stations and

self-service;
 Educational occupancies for students above the 12th grade;
 Electronic data processing;
 Laboratories; testing and research;
 Motor vehicle showrooms;
 Post offices;
 Print shops;
 Professional services (such as architects, attorneys, dentists, physicians, engineers);
 Radio and television stations;
 Telephone exchanges;
 Training and skill development not within a school or academic program.

Group B Medical Occupancies. In addition to the requirements of this code for Group B occupancies, the provisions of Section 401.17 shall apply to Group B medical and dental occupancies that provide services or treatment for four or more patients who may simultaneously be rendered incapable of taking action for self-preservation under emergency conditions. This occupancy shall include, but not be limited to, the following:

Outpatient clinics with general anesthesia or life-support equipment;
 Dental centers providing treatment under general anesthesia;
 One-day surgical centers;
 Physician's offices providing treatment under general anesthesia.

Facilities such as the above that do not provide general anesthesia or life-support equipment simultaneously to four or more patients shall be classified as Group B occupancies and shall not be subject to the special provisions of Section 401.17.

In-home Group B occupancies. Customary in-home business occupancies located within a single-family dwelling unit, that provide professional services and employ a maximum of one employee within the dwelling in addition to the residents of the dwelling unit, shall be classified as a Group R-3 occupancy or shall be permitted to comply with the requirements of the 2003 International Residential Code portion of the 2005 State Building Code.

Educational Group E. Educational Group E occupancy includes, among others, the use of a building or structure, or a portion thereof, by six or more persons at any one time for educational purposes through the 12th grade. Religious educational rooms and religious auditoriums, which are

accessory to churches in accordance with Section 302.2 of the International Building Code and have occupant loads of less than 100, shall be classified as Group A-3 occupancies.

Day care. The use of a building or structure, or portion thereof, for educational, supervision or personal care services for fewer than 24 hours for more than six children 3 years of age or older shall be classified as an E occupancy.

Factory Industrial Group F. Factory Industrial Group F occupancy includes, among others, the use of a building or structure, or a portion thereof, for assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair or processing operations that are not classified as a Group H high-hazard or Group S storage occupancy.

Factory Industrial F-1 Moderate-Hazard Occupancy. Factory Industrial uses which are not classified as Factory Industrial Group F-2 shall be classified as F-1 Moderate-Hazard and shall include, but not be limited to, the following:

- Aircraft;
- Appliances;
- Athletic equipment;
- Automobiles and other motor vehicles;
- Bakeries;
- Beverages, over 12 per cent in alcohol content;
- Bicycles;
- Boats;
- Brooms or brushes;
- Business machines;
- Cameras and photo equipment;
- Canvas and similar fabric;
- Carpet and rugs (includes cleaning);
- Disinfectants;
- Dry cleaning and dyeing;
- Electric generating plants;
- Electronics;
- Engines (including rebuilding);
- Food processing;
- Furniture;
- Hemp products;
- Jute products;
- Laundries;
- Leather products;
- Machinery;
- Metals;
- Millwork (sash and doors);
- Motion picture and television filming (without spectators);
- Musical instruments;

Optical goods;
 Paper mills or products;
 Photographic film;
 Plastic products;
 Printing or publishing;
 Recreational vehicles;
 Refuse incineration;
 Shoes;
 Soaps and detergents;
 Textiles;
 Tobacco;
 Trailers;
 Upholstering;
 Wood; distillation;
 Woodworking (cabinet).

Factory Industrial F-2 Low-Hazard Occupancy. Factory industrial uses involving the fabrication or manufacturing of noncombustible materials which, during finishing, packaging or processing do not involve a significant fire hazard, shall be classified as F-2 occupancies and shall include, but not be limited to, the following:

Beverages, up to and including 12 per cent alcohol content;
 Brick and masonry;
 Ceramic products;
 Foundries;
 Glass products;
 Gypsum;
 Ice;
 Metal products (fabrication and assembly).

High-Hazard Group H. High-hazard group H occupancy includes, among others, the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those found in Tables 307.7(1) and 307.7(2) of the International Building Code. (See also definition of “control area”).

Exception: Occupancies as provided for in the International Building Code shall not be classified as Group H, but shall be classified in the occupancy which they most nearly resemble.

High-hazard Group H-1. Buildings and structures containing materials that pose a detonation hazard, shall be classified as Group H-1. Such materials shall include, but not be limited to, the following:

Explosives:

Division 1.1;

Division 1.2;

Division 1.3;

Exception: Materials that are used and maintained in a form where either confinement or configuration will not elevate the hazard from a mass fire to mass explosive hazard shall be allowed in Group H-2 occupancies.

Division 1.4;

Exception: Articles, including articles packaged for shipment, including 1.4G consumer fireworks, or unpackaged articles used in process operations that do not propagate a detonation or deflagration between articles shall be allowed in Group H-3 occupancies.

Division 1.5;

Division 1.6;

Organic peroxides;

Oxidizers, Class 4;

Unstable (reactive) materials, Class 3 detonable, and Class 4;

Detonable pyrophoric materials.

High-hazard Group H-2. Buildings and structures containing materials that pose a deflagration hazard or a hazard from accelerated burning, shall be classified as Group H-2. Such materials shall include, but not be limited to, the following:

Class I, or II or IIIA flammable or combustible liquids which are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch (103.4 kPa) gauge;

Combustible dusts;

Cryogenic fluids, flammable;

Flammable gases;

Organic peroxides, Class I;

Oxidizers, Class 3, that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch (103.4 kPa) gauge;

Pyrophoric liquids, solids and gases, nondetonable;

Unstable (reactive) materials, Class 3, nondetonable;

Water-reactive materials, Class 3.

High-hazard Group H-3. Buildings and structures containing materials that readily support combustion or that pose a physical

hazard shall be classified as Group H-3. Such materials shall include, but not be limited to, the following:

- Class I, II or IIIA flammable or combustible liquids which are used or stored in normally closed containers or systems pressurized at less than 15 pounds per square inch (103.4 kPa) gauge;
- Combustible fibers;
- Consumer fireworks, 1.4G (Class C, Common);
- Cryogenic fluids, oxidizing;
- Flammable solids;
- Organic peroxides, Class II and Class III;
- Oxidizers, Class 2;
- Oxidizers, Class 3, that are used or stored in normally closed containers or systems pressurized at less than 15 pounds per square inch gauge (103 kPa);
- Oxidizing gases;
- Unstable (reactive) materials, Class 2;
- Water-reactive materials, Class 2.

Consumer fireworks, Class 1.4G. Sparklers and fountain display items permitted to be sold in Connecticut shall be exempt from the requirements of an H-3 occupancy under the following circumstances:

1. The total amount on display and in storage in any single control area complies with the maximum allowable quantities as listed in Table 307.7(1) of the International Building Code portion of the State Building Code, or;
2. The new or existing retail store or retail sales facility complies with the provisions of NFPA 1124-2006 for new stores and facilities as herein amended by the State of Connecticut.

Stores and facilities selling sparklers and fountain display items that are exempt from the requirements of an H-3 occupancy shall provide employee supervision of the fireworks display area; shall locate all fireworks a minimum of 5 feet from any building exit; and shall comply with the requirements of Part IV of this code.

The provisions of NFPA 1124 are amended for use in Connecticut as follows:

(Amd) **7.5.3 Storage Rooms.** Storage rooms containing consumer fireworks, regardless of size, in a new or existing permanent store shall be protected with an automatic sprinkler system installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, or separated from the retail sales area by a fire barrier having a fire

resistance rating of not less than 1 hour. The quantity of fireworks permitted in storage shall not exceed 3,600 cubic feet, including packaging. Such storage shall be segregated into areas of 1,200 cubic feet or less, separated by a minimum of 4 feet of clear space.

High-hazard Group H-4. Buildings and structures containing materials that are health hazards shall be classified as Group H-4. Such materials shall include, but not be limited to, the following:

- Corrosives;
- Highly toxic materials;
- Toxic materials.

High-hazard Group H-5. Semiconductor fabrication facilities and comparable research and development areas in which hazardous production materials (HPM) are used and the aggregate quantity of materials is in excess of those listed in Tables 307.7(1) and 307.7(2) of the International Building Code. Such facilities and areas shall be designed and constructed in accordance with Section 415.9 of the International Building Code.

Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which people, cared for or living in a supervised environment and having physical limitations because of health or age, are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.

Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

- Alcohol and drug centers;
- Assisted living facilities;
- Congregate care facilities;
- Convalescent facilities;
- Group homes;
- Halfway houses;
- Residential board and care facilities;
- Social rehabilitation facilities.

A facility such as the above with three or fewer persons shall be classified as Group R-3. A facility such as above, housing at least four and not more than 16 persons, shall be classified as Group R-4.

Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care on a 24-hour basis for four or more persons who are not capable of self-preservation. This group shall include, but not be limited to, the following:

- Hospitals;
- Nursing homes (both intermediate care facilities and skilled nursing facilities);
- Mental hospitals;
- Detoxification facilities.

A facility such as the above with three or fewer persons shall be classified as Group R-3.

Child care facility. A child care facility that provides care on a 24-hour basis to more than five children less than 3 years of age shall be classified as Group I-2. Such a facility with five or fewer children less than 3 years of age shall be classified as Group R-3.

Alternative compliance for small group homes. See Section 407.12 of the State Building Code for alternative compliance provisions for Group I-2 group homes serving four to six persons who are not capable of self-preservation.

Group I-3. This occupancy shall include buildings and structures which are inhabited by four or more persons who are under restraint or security. An I-3 facility is occupied by persons who are generally incapable of self-preservation due to security measures not under the occupants' control. This group shall include, but not be limited to, the following:

- Correctional centers;
- Detention centers;
- Jails;
- Prerelease centers;
- Prisons;
- Reformatories.

Buildings of Group I-3 shall be classified as one of the occupancy conditions indicated as follows:

Condition 1. This occupancy condition shall include buildings in which free movement is allowed from

sleeping areas and other spaces where access or occupancy is permitted, to the exterior via means of egress without restraint. A Condition 1 facility is permitted to be constructed as Group R.

Condition 2. This occupancy condition shall include buildings in which free movement is allowed from sleeping areas and any other occupied smoke compartment to one or more smoke compartments. Egress to the exterior is impeded by locked exits.

Condition 3. This occupancy condition shall include buildings in which free movement is allowed within individual smoke compartments, such as sleeping units and group activity spaces, where egress is impeded by remote-controlled release of means of egress from such smoke compartment to another smoke compartment.

Condition 4. This occupancy condition shall include buildings in which free movement is restricted from an occupied space. Remote-controlled release is provided to permit movement from sleeping units, activity spaces and other occupied areas within the smoke compartment to other smoke compartments.

Condition 5. This occupancy condition shall include buildings in which free movement is restricted from an occupied space. Staff-controlled manual release is provided to permit movement from sleeping units, activity spaces and other occupied areas within the smoke compartment to other smoke compartments.

Group I-4, day care facilities. This group shall include buildings or structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians, relatives by blood marriage, or adoption, and in a place other than the home of the person cared for. A facility such as the above with six or fewer persons shall be classified as Group R-3 or shall comply with the International Residential Code. Places of worship during religious functions are not included.

Adult care facility. A facility that provides accommodations for less than 24 hours per day for more than six unrelated adults and provides supervision and personal care services shall be classified as Group I-4.

Exception: Where the occupants are capable of responding to an emergency situation without

physical assistance from the staff, the facility shall be classified as Group A-3.

Child care facility. A facility that provides supervision and personal care on less than a 24-hour-per-day basis for more than six children less than 3 years of age shall be classified as Group I-4.

Exceptions:

1. A child care facility which provides care for more than six but not more than 100 children less than 3 years of age, when the rooms where such children are cared for are located on the level of exit discharge and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.
2. As defined in section 19a-77 of the Connecticut General Statutes, a family day care home that accommodates six or fewer children of any age shall be classified as Group R-3 or shall comply with the International Residential Code® as adopted by the State Building Code. During the regular school year, a maximum of three additional children who are in school full time, including the provider's own children, shall be permitted, except that if the provider has more than three children who are in school full time, all of the provider's children shall be permitted.

Mercantile Group M. Mercantile Group M occupancies include, among others, buildings and structures or a portion thereof, for the display and sale of merchandise, and involves stocks of goods, wares or merchandise incidental to such purposes and accessible to the public. Mercantile occupancies shall include, but not be limited to, the following:

Department stores;
 Drug stores;
 Markets;
 Motor fuel-dispensing facilities;
 Retail or wholesale stores;
 Sales rooms.

Residential Group R. Residential Group R includes, among others, the use of a building or structure or a portion thereof, for sleeping purposes when not classified as Institutional Group I. Residential occupancies shall include the following:

R-1 Residential occupancies where the occupants are primarily transient (less than 30 days) in nature including:

Boarding houses;
Hotels;
Motels;
Bed and breakfast establishments.

Group R-1 bed and breakfast establishments. A building that the owner occupies or that is adjacent to a building that the owner occupies as his or her primary place of residence, has a total occupant load of not more than 16 persons including the owner-occupants, and has no provisions for cooking or warming food in the guest rooms. A Group R-1 bed and breakfast establishment shall not be permitted within a mixed use building. A fire evacuation plan shall be prominently posted on the inside of each guest room door.

Kitchens in Group R-1 bed and breakfast establishments. Kitchens in Group R-1 bed and breakfast establishments shall be separated by ½-hour rated separation assemblies.

Exceptions:

1. Fire rated separation assemblies shall not be required when the kitchen is protected by a limited area sprinkler system.
2. Fire separation assemblies shall not be required when the kitchen is equipped with a listed residential range top extinguisher unit or an approved commercial kitchen hood with a listed, approved automatic fire suppression system.
3. The structural members supporting the rated assemblies shall not be required to be fire resistance rated.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses;
Boarding houses (not transient);
Convents;
Dormitories;
Fraternities and sororities;
Hotels (nontransient);
Monasteries;
Motels (nontransient).

R-3 Residential occupancies where the occupancies are primarily permanent in nature and not classified as R-1, R-2, R-4 or I and where buildings do not contain more than two dwelling units, or adult and child care facilities that provide

accommodations for six or fewer persons of any age for less than 24-hours. Adult and child care facilities that are within a single-family home are permitted to comply with the International Residential Code[®] as adopted by the State Building Code. R-3 occupancies shall allow not more than six lodgers or boarders where personal care services are not provided.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than three but not more than 16 occupants, excluding staff. Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3s except as otherwise provided by the State Building Code.

Storage Group S. Storage Group S occupancy includes, among others, the use of a building or structure, or a portion thereof, for storage that is not classified as a hazardous occupancy.

Moderate-hazard storage, Group S-1. Buildings occupied for storage uses which are not classified as Group S-2 including, but not limited to, storage of the following:

- Aerosols, Level 2 and 3;
- Aircraft repair hangar;
- Bags, cloth, burlap and paper;
- Bamboo and rattan;
- Baskets;
- Belting, canvas and leather;
- Books and paper in rolls or packs;
- Boots and shoes;
- Buttons, including cloth covered, pearl or bone;
- Cardboard and cardboard boxes;
- Clothing, woolen wearing apparel;
- Cordage;
- Furniture;
- Furs;
- Glue, mucilage, paste and size;
- Grain;
- Horn and combs, other than celluloid;
- Leather;
- Linoleum;
- Lumber;
- Motor vehicle repair garages (complying with the International Building Code and containing less than the maximum allowable quantities of hazardous materials);
- Photo engraving;
- Resilient flooring;
- Silk;
- Soap;

- Sugar;
- Tires, bulk storage of;
- Tobacco, cigars, cigarettes and snuff;
- Wax candles.

Low-hazard storage, Group S-2. Includes, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products may have a negligible amount of plastic trim such as knobs, handles or film wrapping. Storage uses shall include, but not be limited to, storage of the following:

- Aircraft hangar;
- Asbestos;
- Beverages up to and including 12-per cent alcohol in metal, glass or ceramic containers;
- Cement in bags;
- Chalk and crayons;
- Dairy products in nonwaxed coated paper containers;
- Dry cell batteries;
- Electrical coils;
- Electrical motors;
- Empty cans;
- Food products;
- Foods in noncombustible containers;
- Fresh fruits and vegetables in nonplastic trays or containers;
- Frozen foods;
- Glass;
- Glass bottles, empty or filled with noncombustible liquids;
- Gypsum board;
- Inert pigments;
- Ivory;
- Metal desks with plastic tops and trim;
- Metal parts;
- Metals;
- Mirrors;
- Oil-filled and other types of distribution transformers;
- Parking garages (open or enclosed);
- Stoves;
- Talc and soapstones;
- Washers and dryers.

Miscellaneous Group U. Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard

incidental to their occupancy. Group U shall include, but not be limited to, the following:

- Agricultural buildings;
- Aircraft hangar, accessory to a one- or two-family residence (See Section 412.3 of the International Building Code);
- Barns;
- Carports;
- Fences more than 6 feet (1829 mm) high;
- Grain silos, accessory to a residential occupancy;
- Greenhouses;
- Livestock shelters;
- Private garages;
- Retaining walls;
- Sheds;
- Stables;
- Tanks;
- Towers.

Incidental use areas. Spaces which are incidental to the main occupancy shall be separated or protected, or both, in accordance with Section 704, or the building shall be classified as a mixed use occupancy and comply with Section 302.3 of the State Building Code. Areas that are incidental to the main occupancy shall be classified in accordance with the main occupancy of the portion of the building in which the incidental use area is located.

Chapter 4 of the Connecticut State Fire Safety Code is amended to add the following:

(Add) **401.7.1 Alternative compliance for small group homes.** See Section 407.12 of the State Building Code for alternative compliance provisions for Group I-2 group homes serving four to six persons who are not capable of self-preservation.

(Add) **401.18 Organic coatings.** Building containing organic coating manufacturing operations shall comply with Section 418 of the State Building Code.

(Add) **401.19 Application of flammable finishes.** Buildings containing operations for the application of flammable finishes shall comply with Section 416 of the State Building Code.

(Add) **401.20 Mezzanines.** Mezzanines as defined in Section 502.1 of the State Building Code shall comply with Section 505 of the State Building Code.

Chapter 7, Section 704.1, of the Connecticut State Fire Safety Code is amended to read:

(Add) **704.1 Incidental use areas.** Spaces deemed to be incidental to the main occupancy shall be separated or protected, or both, in accordance with Table 704.1, or the building shall be classified as a mixed occupancy in accordance with Section 302 of the State Building Code.

Exception: Incidental use areas within and serving a dwelling unit are not required to comply with this section.

Chapter 8 of the Connecticut State Fire Safety Code is amended to add the following:

(Amd) **806.1 General.** The provisions of this section shall limit the allowable flame spread and smoke development of interior finishes and decorative materials in buildings based on location and occupancy classification.

Exceptions:

1. Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls and ceilings.
2. Exposed portions of structural members complying with the requirements of buildings of Type IV construction in accordance with the *International Building Code* shall not be subject to interior finish requirements.

(Add) **806.4 Interior floor finish.** Interior floor finish and covering shall comply with Section 804 of the State Building Code.

Chapter 9 of the Connecticut State Fire Safety Code is amended to add the following:

(Amd) **903.2.1.2 Group A-2.** An automatic sprinkler system shall be provided for Group A-2 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet.

Exception: Existing restaurants in existing non-sprinklered buildings that were designated Use Group A-3 under a previous edition of the State Building Code that undergo an addition, alteration or change of occupancy that results in an increase in the restaurant's fire area providing the proposed fire area does not exceed 12,000 square feet.

2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than the level of exit discharge.

(Add) **903.2.7.1 Small residential care/assisted living facility alternative compliance.** An NFPA 13D automatic sprinkler system in accordance with Section 903.3.1.3 shall be permitted in a Group R-4 occupancy when all of the following conditions are met:

1. The facility is not in a building containing mixed occupancies.
2. The facility is limited to six or fewer occupants, excluding staff.
3. The building in which the facility is located is limited to two stories above grade and 40 feet in height.
4. The automatic sprinkler system is provided with a minimum 30-minute water supply.
5. All habitable and usable areas and closets are sprinklered.
6. The sprinkler system is provided with valve supervision by one of the following methods:
 - 6.1. A single listed control valve that shuts off both domestic and sprinkler system water supply and a separate valve that shuts off the domestic system only.
 - 6.2. Electrical supervision connected to the facility's fire alarm system.
 - 6.3. Valve closure that causes the sounding of an audible alarm throughout the premises.

(Amd) **903.2.13 Other required suppression systems.** In addition to the requirements of Section 903.2, the provisions of Section 1024.6.2.3 and the State Building Code also require the installation of a suppression system for certain buildings and areas.

(Del) **Table 903.2.13 Additional required fire-extinguishing systems.** Delete table.

(Add) **903.3.1.1.2 Vertical openings.** Closely spaced sprinklers and draft stops are not required around floor openings permitted to be unenclosed by the State Building Code or this code unless the closely spaced sprinklers and draft stops are being utilized in lieu of an enclosure as specified by Exception 2.1 to Section 707.2 of the State Building Code.

(Amd) **903.3.1.2 NFPA 13R sprinkler systems.** Where allowed in buildings of Group R, up to and including four stories above grade and 60 feet in height, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13R.

(Add) **903.3.1.2.2 Mixed occupancies.** Buildings containing occupancies other than Group R shall not be permitted to utilize an NFPA 13R sprinkler system.

Exception: Buildings that comply with Section 508.2 of the State Building Code that contain only Group R occupancies above the

horizontal assembly shall be permitted to utilize an NFPA 13R sprinkler system above the horizontal assembly, provided such occupancy complies with Section 903.3.1.2.

(Amd) **903.3.5.2 Secondary water supply.** A secondary on-site water supply equal to the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings in Seismic Design Category D, E or F as determined by the International Building Code. The secondary water supply shall have a duration of not less than 30 minutes.

Exception: Existing buildings.

(Del) **904.11.5 Commercial cooking equipment.** Delete section.

(Add) **905.2.1 Piping design.** The riser piping, supply piping and the water service piping shall be sized to maintain a residual pressure of at least 100 psi (690 kPa) at the topmost outlet of each riser while flowing the minimum quantities of water specified based upon a pressure of 150 psi (1034 kPa) available at the fire department connection.

Exception: In buildings equipped throughout with an automatic sprinkler system in accordance with Sections 903.3.1.1 or 903.3.1.2 and where the highest floor level is not more than 150 feet above the lowest level of fire department vehicle access, Class I standpipes shall have an automatic or manual-wet supply.

(Amd) **905.3.6 Helistops and heliports.** Buildings with a helistop or heliport that are equipped with a standpipe shall extend the standpipe to the roof level on which the helistop or heliport is located. All portions of the helistop and heliport area shall be within 150 feet (45 720 mm) of a 2.5-inch (63.5 mm) outlet on a Class I or III standpipe.

(Del) **906.2 General requirements.** Delete section.

(Del) **906.3 Size and distribution.** Delete section.

(Del) **906.4 Cooking grease fires.** Delete section.

(Del) **906.5 Conspicuous location.** Delete section.

(Del) **906.6 Unobstructed and unobscured.** Delete section.

(Del) **906.7 Hangers and brackets.** Delete section.

(Del) **906.8 Cabinets.** Delete section.

(Del) **906.9 Height above floor.** Delete section.

(Del) **906.10 Wheeled units.** Delete section.

(Del) **907.3 Where required – retroactive in existing buildings and structures.** Delete section.

(Del) **908.1 Group H occupancies.** Delete section.

(Del) **908.2 Group H-5 occupancy.** Delete section.

(Del) **908.3 Highly toxic and toxic materials.** Delete section.

(Del) **908.4 Ozone gas-generator rooms.** Delete section.

(Del) **908.5 Repair garages.** Delete section.

(Amd) **909.16 Fire-fighter's smoke control panel.** A fire-fighter's smoke control panel to be used solely for fire department emergency response purposes shall be provided and shall include manual control or override of automatic control for mechanical smoke control systems. The panel shall be located in a fire command center complying with Section 911 of the International Building Code portion of the State Building Code in high-rise buildings. In all other buildings, the fire-fighter's smoke control panel shall be installed in an approved location adjacent to the fire alarm control panel. The fire-fighter's smoke control panel shall comply with Sections 909.16.1 to 909.16.3, inclusive.

(Amd) **910.1 General.** Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions:

1. Frozen food warehouses used solely for storage of Class I or II commodities where protected by an approved automatic sprinkler system.
2. Where areas of the building are equipped with early suppression fast-response (ESFR) sprinklers, automatic smoke and heat vents shall not be required within these areas.

(Amd) **911.1 General.** Explosion control shall be provided in the following locations:

1. Where a structure, room or space is occupied for purposes involving explosion hazards as identified in Table 911.1.
2. Where quantities of hazardous materials specified in Table 911.1 exceed the maximum allowable quantities in Table 307.7(1) of the State Building Code.

Such areas shall be provided with explosion (deflagration) venting, explosion (deflagration) prevention systems or barricades in accordance with this section and NFPA 69, or NFPA 495 as applicable. Deflagration

venting shall not be utilized as a means to protect buildings from detonation hazards.

(Add) **913.2.1 Emergency and standby power.** Emergency and standby power for electric fire pumps shall be provided as required by Sections 2702.2.14, 2702.2.15 and 2702.2.20 of the State Building Code.

Chapter 9, Sections 903.2.7 and 903.3.5.1.1, of the Connecticut State Fire Safety Code are amended to read:

(Amd) **903.2.7 Group R.** An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all newly constructed buildings with a Group R fire area or in existing buildings that have a Group R fire area newly introduced by change of occupancy or by an addition.

Exceptions:

1. Group R-1 bed and breakfast establishments.
2. Existing buildings four stories or less in height undergoing a change of occupancy from a one- or two-family building or Group R-3 to Group R-2 containing not more than four dwelling units that does not involve an increase in height or area and where each dwelling unit has either:
 - 2.1 An exit door directly to the exterior at a level of exit discharge,
 - 2.2 Direct access to an exterior stair serving a maximum of two dwelling units on the same story, or
 - 2.3 Direct access to an interior stair serving only that dwelling unit and separated from all other portions of the building with 1-hour fire-resistance-rated fire barriers.
3. Existing buildings converted prior to June 15, 1994 from a one- or two-family building or Group R-3 to Group R-2 containing not more than four dwelling units.
4. Additions containing a newly introduced Group R occupancy that are added to existing buildings shall be required to have an automatic sprinkler system installed in the addition only if the addition is completely separated from the existing building by fire barriers with a minimum one-hour fire-resistance rating.

(Amd) **903.3.5.1.1 Limited area sprinkler systems.** Limited area sprinkler systems serving six sprinklers or less in any fire area are permitted to be connected to the domestic service where a wet automatic standpipe is not available. Limited area sprinkler systems connected to domestic water supplies shall comply with each of the following requirements:

1. Valves shall not be installed between the domestic water riser control valve and the sprinklers.

Exception to Item 1: An approved indicating control valve supervised electrically or locked or secured in the open position shall be permitted.

2. The domestic service shall be designed and installed in accordance with NFPA 13 or NFPA 13D.

Chapter 10 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **1003.2 Ceiling height.** The means of egress shall have a ceiling height of not less than 7 feet 6 inches.

Exceptions:

1. Sloped ceilings in accordance with Section 1208.2 of the State Building Code.
2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2 of the State Building Code.
3. Allowable projections in accordance with Section 1003.3.
4. Stair headroom in accordance with Section 1009.2.
5. Door height in accordance with Section 1008.1.1.

(Amd) **1003.3.2 Free-standing objects.** A free-standing object mounted on a post or pylon shall not overhang that post or pylon more than 4 inches where the lowest point of the leading edge is more than 27 inches and less than 80 inches above the walking surface. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches, the lowest edge of such sign or obstruction shall be 27 inches maximum or 80 inches minimum above the finished floor or ground.

Exception: This requirement shall not apply to sloping portions of handrails serving stairs and ramps.

(Add) **1003.8 Security devices.** Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premise shall be prohibited.

(Add) **1003.9** Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner to confuse the direction of egress.

(Amd) **1004.1.2 Number by Table 1004.1.2.** The number of occupants computed at a rate of one occupant per unit of area as prescribed in Table 1004.1.2.

Exception: Day care occupancies shall be calculated at a rate of one occupant per 35 square feet of net area.

(Add) **1006.3.1 When required.** The emergency means of egress illumination system shall be arranged to provide the required illumination

automatically in the event of any interruption of normal lighting due to any of the following:

1. Failure of a public utility or other outside electrical power supply.
2. Opening of a circuit breaker or fuse.
3. Manual acts including accidental opening of a switch controlling normal lighting facilities.

(Amd) **1007.1 Accessible means of egress required.** Accessible means of egress shall be determined by the building official and maintained for new construction in accordance with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by Section 1014.1 or 1018.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

Exceptions:

1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3 or 1007.4.
3. In assembly spaces with sloped floors, one accessible means of egress is required from a space where the common path of travel of the accessible route for access to the wheelchair spaces meets the requirements in Section 1024.9.

(Amd) **1009.11.2 Intermediate handrails.** Intermediate handrails are required for stairs with a required width exceeding 75 inches so that all portions of the stairway width required for egress capacity are within 30 inches of a handrail. On monumental stairs, handrails shall be located along the most direct path of egress travel.

(Del) **1010.9 Edge protection.** Delete section and subsections in their entirety and substitute with:

(Add) **1010.9 Edge protection.** Edge protection for ramps shall be in accordance with Section 405.9 of the ICC/ANSI A117.1-2003 standard.

(Add) **1011.1.1.2 Approval.** Floor proximity exit signs shall be listed and labeled in accordance with UL 924, Emergency Lighting and Power Equipment, Edition 9, dated February 24, 2006.

(Amd) **1012.2 Height.** Guards shall form a protective barrier not less than 42 inches high, measured vertically above the leading edge of the tread or the adjacent walking surface.

Exceptions:

1. For occupancies in Group R-1 bed and breakfast establishments and in Group R-3, and within individual dwelling units, guards whose top rail also serves as a handrail shall have a height not less than 34 inches and not more than 38 inches measured vertically from the leading edge of the stair tread nosing.
2. For occupancies in Group R-1 bed and breakfast establishments, level guards shall be not less than 36 inches high, measured vertically above the adjacent walking surface.
3. The height in assembly seating areas shall be in accordance with Section 1024.14.

(Amd) **1012.3 Opening limitations.** Open guards shall have balusters or ornamental patterns such that a 4-inch-diameter sphere cannot pass through any opening up to a height of 34 inches. From a height of 34 inches to 42 inches above the adjacent walking surfaces, a sphere 8 inches in diameter shall not pass.

Exceptions:

1. The triangular openings formed by the riser, tread and bottom rail at the open side of a stairway shall be of a maximum size such that a sphere of 6 inches in diameter cannot pass through the opening.
2. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, guards shall have horizontal rails, balusters or be of solid material such that a sphere with a diameter of 21 inches cannot pass through any opening.
3. In areas that are not open to the public, within occupancies in Group I-3, F, H or S, balusters, horizontal intermediate rails or other construction shall not permit a sphere with a diameter of 21 inches to pass through any opening.
4. In assembly seating areas, guards at the end or aisles where they terminate at a fascia of boxes, balconies and galleries shall have balusters or ornamental patterns such that a 4-inch-diameter sphere cannot pass through any opening up to a height of 26 inches. From a height of 26 inches to 42 inches above the adjacent walking surfaces, a sphere 8 inches in diameter shall not pass.
5. In Group R-1 bed and breakfast establishments, guards shall have balusters or ornamental patterns such that a 6-inch-diameter sphere cannot pass through any opening.

(Amd) **1013.2 Egress through intervening spaces.** Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy and provide a discernable path of egress travel to an exit. Egress shall not pass through kitchens,

storage rooms, closets or spaces used for similar purposes. An exit access shall not pass through a room that can be locked to prevent egress. Means of egress from dwelling units or sleeping areas shall not lead through other dwelling units, sleeping areas, toilet rooms or bathrooms.

Exceptions:

1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or sleeping unit.
2. Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H occupancy when the adjoining or intervening rooms or spaces are of the same or a lesser hazard occupancy group.
3. Not more than 50 percent of the required exit access may travel through stockrooms in Group M occupancies when the stock is of the same hazard classification as that found in the main retail area; when the stockroom is not subject to locking from the egress side; and when there is a 44-inch-wide aisle defined by full or partial height fixed walls or similar fixed construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.

(Add) **1023.2.1 Remoteness.** Where two or more doors leading to an exit discharge are required a minimum of two such doors shall be placed a distance apart equal to not less than one-third of the length of the maximum overall diagonal dimension of the building served, measured in a straight line between doors. Additional doors leading to exit discharge shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available.

(Amd) **1025.3 Maximum height from floor.** Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches measured from the floor.

Exception: The 44-inch maximum height shall be permitted to be measured vertically above a fixed, permanent platform, step or steps whose minimum width shall equal or exceed the operable width of the opening and centered on such opening and which shall comply with Section 1009.3.

Chapter 10, Sections 1024.2 and 1026, of the Connecticut State Fire Safety Code are amended to read:

Sec. 1005.1.1 Balanced egress capacity. Delete section in its entirety and replace with:

(Add) **1005.1.1 Multiple means of egress.** Multiple means of egress in buildings requiring more than one exit and in rooms or

spaces requiring more than one means of egress shall be sized so that the loss of any one means of egress shall not reduce the required capacity of the remaining means of egress to a fraction less than that determined as follows:

$$\frac{(R-1)}{R} = C$$

where:

R = the number of required means of egress from a room, space or story as determined by Section 1014 or Section 1018

C = the minimum fraction of required egress capacity remaining after the loss of any one means of egress

(Amd) **1010.7.1 Ramp Surface.** The surface of ramps shall be of slip-resistant materials that are securely attached and in compliance with the provisions of Section 302.3 of the ICC/ANSI A117.1-2003 Standard.

(Add) **1011.1.1 Floor proximity exit signs.** Where exit signs are required by Section 1011.1 of this code, exit access doors and exit doors shall additionally be marked by floor proximity exit signs in Group A occupancies with an occupant load of more than 300, Group B medical occupancies, Group I-1 occupancies, Group I-2 occupancies, Group R-1 hotels and motels and Group R-2 dormitories.

(Add) **1011.1.2 Accessible exits.** Where exit signs are required by Section 1011.1 of this code, accessible exit doors at the level of exit discharge that lead directly to accessible paths of exit discharge shall additionally be marked by the International Symbol of Accessibility. Such symbol shall be not less than 6 inches high and shall be incorporated into the required exit sign or shall be located directly adjacent to it. Such symbol shall meet the requirements of Section 1011.

(Amd) **1024.2 Assembly main exit.** In Group A occupancies that are newly constructed, have an increase in the number of occupants by addition or alteration, or are created by change of occupancy and that have a single main entrance, such main entrance shall also be the main exit. The main entrance/exit shall be of sufficient width to accommodate not less than two-thirds of the occupant load, but such width shall not be less than the total required width of all means of egress leading to the exit.

(Del) **SECTION 1026 Means of Egress for existing buildings.** Delete section in its entirety and replace with the following:

(Add) **SECTION 1026 FLOOR PROXIMITY EGRESS PATH MARKING**

(Add) **1026.1 Where required.** In addition to means of egress illumination required by Section 1006, floor proximity egress path marking systems or devices shall be required in exit access corridors serving an occupant load greater than 30 in the following newly constructed occupancies:

1. Group A occupancies with a total occupant load greater than 300.
2. Group B medical occupancies.
3. Group E occupancies.
4. Group I-1 occupancies.
5. Group I-2 occupancies.
6. Group R-1 hotels and motels.
7. Group R-2 dormitories.

Exceptions:

1. Group E occupancies where each classroom has at least one door directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. In corridors or hallways located within Group R-1 and R-2 sleeping units or dwelling units.
3. Such systems shall not be required in existing buildings of any occupancy including those undergoing repair, addition, alteration or change of occupancy.

(Add) **1026.2 Size and location.** Where required by Section 1026.1, floor proximity egress path marking systems or devices shall be located on the walls of exit access corridors within 18 inches of the finished floor to provide a visible delineation of the path of travel along the exit access corridor. Such markings or devices shall be essentially continuous, except as interrupted by doorways, intersecting hallways and corridors or other similar architectural features. Where such systems or devices are photoluminescent, they shall be a minimum of 1 inch and a maximum of 2 inches in width.

(Add) **1026.3 Device or system requirements.** Floor proximity egress path marking systems or devices shall be listed and labeled and installed in accordance with the manufacturer's installation requirements. Such systems shall not incorporate arrows, chevrons, signs or alternating lighting patterns designed or intended to lead an occupant to any one specific exit in preference over another exit.

Exception: Systems incorporating arrows, chevrons, signs or alternating lighting patterns designed or

intended to lead an occupant in any one specific direction shall be permitted in dead end corridors.

(Add) **1026.4 Materials.** Floor proximity egress path marking systems or devices shall be permitted to be made of any material, including paint. Such materials shall include, but not be limited to: self-luminous materials; photoluminescent materials; and electrical photo luminescent materials. Materials shall comply with either:

1. UL 1994 Standard for Luminous Egress Path Marking Systems, Edition 3, dated January 30, 2004, or
2. ASTM E 2072, except that the charging source shall be 1 fc (10 lux) of fluorescent illumination for 60 minutes, and the minimum luminance shall be 5 millicandelas per square meter after 90 minutes.

(Add) **1026.5 Illumination.** Floor proximity egress path marking systems or devices shall be continuously illuminated or shall illuminate within 10 seconds in the event of power failure. Illumination shall be maintained for a period of not less than 90 minutes following loss of power to the corridor within which the system or device is located.

(Add) **1026.5.1 Photoluminescent systems or devices.** Corridors where photoluminescent floor proximity exit path marking systems or devices are installed shall be provided with the minimum means of egress illumination required by Section 1006 for at least 60 minutes prior to periods when the building is occupied.

Chapter 15 of the Connecticut State Fire Safety Code is amended to read:

(Del) **Delete chapter.**

Chapter 15 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **1501.1 Scope.** The provisions of this chapter shall apply as referenced by this code or the State Building Code.

(Del) **1501.2 Permits.** Delete section.

(Del) **1503 Protection of operations.** Delete section.

(Del) **1505 Dipping operations.** Delete section.

(Del) **1506 Electrostatic apparatus.** Delete section.

(Del) **1507 Powder coating.** Delete section.

(Del) **1508 Automotive undercoating.** Delete section.

(Del) **1509 Organic peroxides and dual-component coatings.** Delete section.

(Del) **1510 Floor surfacing and finishing operations.** Delete section.

(Del) **1511 Indoor manufacture of reinforced plastics.** Delete section.

Chapter 22 of the Connecticut State Fire Safety Code is amended to read:

(Del) **Delete chapter.**

Chapter 22 MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES. Delete Chapter 22 in its entirety and replace with the following:

**Chapter 22
MOTOR FUEL-DISPENSING FACILITIES AND REPAIR
GARAGES**

(Add) **2201.1 Scope.** Automotive motor fuel-dispensing facilities, marine motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities and repair garages shall be in accordance with the provisions of the Connecticut Flammable and Combustible Liquids Code.

Chapter 23 of the Connecticut State Fire Safety Code is amended to read:

(Del) **Delete chapter.**

Chapter 24, Section 2401.2, of the Connecticut State Fire Safety Code is amended to read:

(Add) **2401.2 Temporary.** For the purposes of this section, temporary shall mean tents, canopies and membrane structures erected for a period of less than 180 consecutive calendar days out of any 365 consecutive days.

PART IV ~ EXISTING BUILDINGS/OCCUPANCIES

Chapter 3 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **3.3.48* Dormitory.** A building or a space in a building in which group sleeping accommodations are provided for more than 16 persons who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, and with or without individual cooking facilities.

Chapter 6, Section 6.1.14, of the Connecticut State Fire Safety Code is amended to read:

(Del) **6.1.14** Delete section.

Chapter 6 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **6.1.8.1.4* Definition - Dormitory.** A building or a space in a building in which group sleeping accommodations are provided for more than 16 persons who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, and with or without individual cooking facilities.

(Amd) **6.1.11.2 In-home Group B occupancies.** Customary in-home business occupancies located within a single-family dwelling unit, that provide professional services and employ a maximum of one employee within the dwelling in addition to the residents of the dwelling unit, shall be classified as a single-family Residential occupancy.

(Del) **6.1.14.4.1 Separated Occupancies.** Delete section.

Chapter 7 of the Connecticut State Fire Safety Code is amended by adding the following:

(Add) **7.1.9.1 Security Devices.** Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premises shall be prohibited.

(Add) **7.2.2.2.1.2** Existing projections from the ceiling in existing stairs shall be permitted to conform to the requirements of 7.1.5.1.3.

(Amd) **7.2.2.4.4.5*** Handrails shall be installed to provide a clearance of not less than 38 mm (1½ in.) between the handrail and the wall to which it is fastened.

(Amd) **7.2.8.2.2** The requirements of 7.2.8.2 shall be permitted to be modified by the State Fire Marshal where automatic sprinkler protection is provided, where the occupancies is limited to low hazard contents or where other special conditions exist.

(Amd) **7.9.2.1*** Emergency illumination shall be provided for not less than 1½ hours in the event of failure of normal lighting. Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 10.8 lux (1 ft-candle) and, at any point, not less than 1.1 lux (0.1 ft-candle), measured along the path of egress at floor level. Illumination levels shall be permitted to decline to not less than an average of 6.5 lux (0.6 ft-candle) and, at any point, not less than 0.65 lux (0.06 ft-candle) at the end of the 1½ hours. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

(Del) **7.10.9 Testing and Maintenance.** Delete section.

Chapter 7, Table 7.3.1.2, of the Connecticut State Fire Safety Code is amended to read:

(Amd) **Table 7.3.1.2 Occupant Load Factor**

Use	m ² (per person) ¹	ft ² (per person) ¹
Assembly Use		
Concentrated use, without fixed seating	0.65 net	7 net
Less concentrated use, without fixed seating	1.4 net	15 net
Bench-type seating	1 person/455 linear mm	1 person/18 linear in.
Fixed seating	Number of fixed seats	Number of fixed seats
Waiting spaces	See 13.1.7.2	See 13.1.7.2
Courtrooms – other than fixed seating	3.7 net	40 net
Kitchens	18.6	200
Library stack areas	9.3	100
Library reading rooms	4.6 net	50 net
Swimming pools	4.6 (water surface)	50 (water surface)

Swimming pool decks	2.8	30
Exercise rooms	4.6	50
Stages	1.4 net	15 net
Lighting and access catwalks, galleries, gridirons	9.3 net	100 net
Casinos and similar gaming areas	1	11
Skating rinks	4.6	50
Airport Terminal Areas		
Baggage claim	1.9	20
Baggage handling	27.9	300
Concourse	9.3	100
Waiting areas	1.4	15
Educational Use		
Classrooms	1.9 net	20 net
Shops, laboratories, vocational rooms	4.6 net	50 net
Day-Care Use	3.3 net	35 net
Health Care Use		
Inpatient treatment departments	22.3	240
Outpatient treatment departments	9.3	100
Sleeping departments	11.1	120
Detention and Correctional Use	11.1	120
Residential Use		
Hotels and dormitories	18.6	200
Apartment buildings	18.6	200
Board and care, large	18.6	200
Industrial Use		
General and high hazard industrial	9.3	100
Special purpose industrial	NA	NA

Business Use	9.3	100
Storage Use (other than mercantile storerooms)	NA	NA
Mercantile Use		
Sales area on street floor ^{2,3}	2.8	30
Sales area on two or more street floors ³	3.7	40
Sales area on floor below street floor ³	2.8	30
Sales area on floors above street floor ³	5.6	60
Floors or portions of floors used only for offices	See business use	See business use
Floors or portions of floors used only for storage, receiving, and shipping, and not open to general public	27.9	300
Mall buildings ⁴	Per factors applicable to use of space ⁵	Per factors applicable to use of space ⁵

Note: NA = not applicable. The occupant load is the maximum probable number of occupants present at any time.

¹All factors are expressed in gross area unless marked “net.”

²For the purpose of determining occupant load in mercantile occupancies where, due to differences in grade of streets on different sides, two or more floors directly accessible from streets (not including alleys or similar back streets) exist, each such floor is permitted to be considered a street floor. The occupant load factor is one person for each 3.7 m²(40 ft²) of gross floor area of sales space.

³For the purpose of determining occupant load in mercantile occupancies with no street floor, as defined in 3.3.216, but with access directly from the street by stairs or escalators, the floor at the point of entrance to the mercantile occupancy is considered the street floor.

⁴For any food court or other assembly use areas located in the mall that are not included as a portion of the gross leasable area

of the mall building, the occupant load is calculated based on the occupant load factor for that use as specified in Table 7.3.1.2. The remaining mall area is not required to be assigned an occupant load.

⁵The portions of the mall that are considered a pedestrian way and not used as gross leasable area are not required to be assessed an occupant load based on Table 7.3.1.2. However, means of egress from a mall pedestrian way are required to be provided for an occupant load determined by dividing the gross leasable area of the mall building (not including anchor stores) by the appropriate lowest whole number occupant load factor from Figure 7.3.1.2(a) or Figure 7.3.1.2(b).

Each individual tenant space is required to have means of egress to the outside or to the mall based on occupant loads calculated by using the appropriate occupant load factor from Table 7.3.1.2.

Each individual anchor store is required to have means of egress independent of the mall.

Chapter 8, Section 8.3.4.3.1 of the Connecticut State Fire Safety Code is amended to read:

(Add) **8.3.4.3.1** Doors having a 20-min fire protection rating or door assemblies consisting of door frames constructed of at least $\frac{3}{4}$ in. thick hardwood stock and $1\frac{3}{4}$ in. thick solid core doors that are self-closing and positive-latching may be used in vertical openings and in exit enclosures provided the building has a minimum of either partial automatic sprinkler protection in accordance with 9.7 or a partial fire detection system in accordance with 9.6. These systems shall include either a sprinkler or fire detector opposite the center of and inside any door that opens into the exit if a partial system is provided, and provisions for occupant notification in accordance with 9.6.3.

Chapter 9, Sections 9.7.1.2 and 9.7.1.5, of the Connecticut State Fire Safety Code are amended to read:

(Amd) **9.7.1.2** Sprinkler piping serving not more than six sprinklers for any isolated hazardous area shall be permitted to be connected directly to a domestic water supply system having a capacity sufficient to provide $6.1\text{L}/\text{min}/\text{m}^2$ ($0.15\text{ gpm}/\text{sq ft}$) throughout the entire enclosed area. Such system shall be installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, with respect to the materials and installation practices. An indicating shutoff valve, supervised in accordance with 9.7.2 or NFPA 13, Standard for the Installation of Sprinkler Systems, shall be permitted to be installed in an accessible, visible, location between the sprinklers and the connection to the

domestic water supply.

(Add) **9.7.1.5 Statutory Requirements.** An automatic fire sprinkler system shall be installed in accordance with the provisions of 9.7.1 as required by the high-rise provisions of section 29-315 of the Connecticut General Statutes in effect on October 1, 1973. For the purpose of this section, building height shall be measured from the lowest level of fire department vehicle access to the floor of the highest occupiable story. (See 3.3.214.1) The provisions of 9.7.3.1 shall not apply to these systems.

Chapter 9 of the Connecticut State Fire Safety Code is amended by adding the following:

(Add) **9.7.4.2.1 Water Supply.** In buildings equipped throughout with an automatic sprinkler system where the highest floor level is not more than 150 ft above the lowest level of fire department vehicle access, Class I standpipes shall have an automatic or manual-wet supply.

(Del) **9.7.5** Delete section.

(Del) **9.7.6** Delete section.

(Del) **9.7.7** Delete section.

(Del) **9.7.8** Delete section.

(Del) **9.8** Delete section.

Chapter 13 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **13.2.3.6 Main Entrance/Exit.** Every assembly occupancy shall be provided with a main entrance/exit. With respect to the capacity of such main entrance/exit, the requirements of section 29-381a of the Connecticut General Statutes shall supersede the requirements of Sections 13.2.3.6.1 through 13.2.3.6.4.

Chapter 13, Sections 13.3.2.1.2 and 13.4.5.7.6.3, of the Connecticut State Fire Safety Code are amended to read:

(Amd) **13.3.2.1.2** Rooms or spaces for the storage, processing, or use of materials specified in 13.3.2.1.2(1) through 13.3.2.1.2(3) shall be protected in accordance with the following:

- (1) Separation from the remainder of the building by fire barriers having a fire resistance rating of not less than 1 hour or

- protection of such rooms by automatic extinguishing systems as specified in 8.7 in the following areas:
- (a) Boiler and furnace rooms, unless otherwise protected by the following:
 - i. The requirement of 13.3.2.1.2(1)(a) shall not apply to rooms enclosing furnaces, heating and air-handling equipment, or compressor equipment, where any piece of equipment has a total aggregate input rating less than or equal to 422 MJ (400,000 Btu), nor to rooms containing a boiler not over 15 psi and 10 horsepower.
 - ii. The requirement of 13.3.2.1.2(1)(a) shall not apply to attic locations of the rooms addressed in 13.3.2.1.2(1)(a) provided such rooms comply with the draftstopping requirements of 8.6.10.
 - (b) Rooms or spaces used for the storage of combustible supplies in quantities deemed hazardous by the authority having jurisdiction.
 - (c) Rooms or spaces used for the storage of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.
 - (d) Laundries over 9.3 m² (100 sq ft²).
- (2) Separation from the remainder of the building by fire barriers having a fire resistance rating of not less than 1 hour and protection of such rooms by automatic extinguishing systems as specified in 8.7 in the following areas:
- (a) Maintenance shops, including woodworking and painting areas.
 - (b) Rooms or spaces used for processing or use of combustible supplies deemed hazardous by the authority having jurisdiction.
 - (c) Rooms or spaces used for processing or use of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.
- (3) Where automatic extinguishing is used to meet the requirements of 13.3.2, the protection shall be permitted to be in accordance with 9.7.1.2.

(Add) **13.4.5.7.6.3** The fire curtain shall be a listed minimum 20-minute opening protective assembly or shall be constructed as required in 13.4.5.7.6.3(A) through 13.4.5.7.6.3(G).

(A) Fabrics. Curtains shall be made of one or more thicknesses of a noncombustible fabric or a fabric with a noncombustible base material and shall comply with the following:

- (1) The fabric shall be permitted to be given a coating, provided that the modified fabric meets the criteria detailed in 13.4.5.7.
- (2) Curtain fabrics shall have a weight of not less than 1.3 kg/m² (2 3/8 lb/yd²).

(B) Tensile Strength Requirements. Curtain fabric shall have tensile strength requirements of not less than 540 N/m (400 lbf/in.) in both the warp and fill directions.

(C) Wire-Insertion Reinforcement Requirements. The fabric shall be reinforced with noncorrosive wire intertwined with the base fiber at a rate of not less than one wire per yarn. Wire shall not be required, and fabric weight shall be permitted to be less than 1.3 kg/m² (2 3/8 lb/yd²) if it can be substantiated by approved tests that it is equivalent in strength and durability.

(D) Fire Test. A sample curtain with not less than two vertical seams shall be subjected to the standard fire test specified in NFPA 251, *Standard Methods of Tests of Fire Endurance of Building Construction and Materials*, as applicable to nonbearing walls and partitions for a period of 30 minutes, as follows:

- (1) The curtain shall overlap the furnace edges by a length that is appropriate to seal the top and sides.
- (2) The curtain shall have a bottom pocket containing not less than 5 kg/linear m (4 lb/linear ft) of batten.
- (3) The unexposed surface of the curtain shall not glow, and neither flame nor smoke shall penetrate the curtain during the test period.
- (4) Unexposed surface temperature and hose stream test requirements shall not be applicable to this proscenium fire safety curtain test.

(E) Smoke Test. Curtain fabrics shall have a smoke density not to exceed 25 where tested in accordance with NFPA 255, *Standard Method of Test of Surface Burning Characteristics of Building Materials*, and the curtain fabric shall be tested in the condition in which it is to be used.

(F) Curtain Operation. The complete installation of every proscenium curtain shall be subjected to operating tests, as follows:

- (1) Any theater in which a proscenium curtain is placed shall not be open to public performance until after the proscenium curtain has been accepted and approved by the authority having jurisdiction.
- (2) The curtain shall be automatic-closing without the use of applied power.
- (3) The curtain also shall be capable of manual operation.

(G) Curtain Position. All proscenium curtains shall be in the closed position, except during performances, rehearsals, or similar activities.

Chapter 15, Sections 15.2.11.1.2 and 15.3.2.1, of the Connecticut State Fire Safety Code are amended to read:

(Amd) **15.2.11.1.2** The requirements of 15.2.11.1.1 shall not apply to the following:

- (1) Buildings protected throughout by an approved, automatic sprinkler system in accordance with 9.7.
- (2) Where the room or space has a door leading directly to the outside of the building.
- (3) Where the bottom of the window opening is higher than 1120 mm (44 in.) but less than 1525 mm (60 in.) above the floor, a stair fixed in place at the window may be utilized to meet the 1120 mm (44 in.) sill height. Said stair shall have a minimum width equal to or exceeding the operable width of the opening and centered on such opening, a maximum riser height of 205 mm (8 in.), a minimum tread depth of 230 mm (9 in.) and shall be provided with a handrail on at least one side.
- (4) Where awning or hopper-type windows that are hinged or subdivided to provide a clear opening not less than 0.38 m² (4 ft²) or any dimension less than 560 mm (22 in.), the following shall apply:
 - (a) Such windows shall be permitted to continue in use.
 - (b) Screen walls or devices in front of required windows shall not interfere with normal rescue requirements.
- (5) Where the room or space complies with the following:
 - (a) Doors shall exist that allow travel between adjacent classrooms.
 - (b) Where doors are used to travel from classroom to classroom, they shall provide the following:
 - i. Direct access to exits in both directions.
 - ii. Direct access to an exit in one direction and to a separate smoke compartment that provides access to another exit in the other direction.
 - (c) The corridor shall be separated from the classrooms by a wall that resists the passage of smoke, and all doors between the classrooms and the corridor are self-closing or automatic-closing in accordance with 7.2.1.8.
 - (d) The length of travel to exits along such paths shall not exceed 46 m (150 ft).
 - (e) Each communicating door shall be marked in accordance with 7.10.
 - (f) No locking device shall be allowed on the communicating doors.
- (6) Where the building is protected throughout by an approved, automatic fire detection system, the length of travel to an exit does not exceed 30 m (100 ft), and a window is provided in each room for ventilation. Smoke detection shall be used in all spaces except where not appropriate due to environmental conditions.

(Amd) **15.3.2.1** Rooms or spaces for the storage, processing, or use of materials shall be protected in accordance with the following:

- (1) Separation from the remainder of the building by fire barriers having a fire resistance rating of not less than 1 hour or protection of such rooms by automatic extinguishing systems as specified in 8.7 in the following areas:
 - (a) Boiler and furnace rooms where any piece of equipment is over 400,000 Btu per hour input or any boiler over 15 psi and 10 horsepower, unless such rooms enclose only air-handling equipment.
 - (b) Rooms or spaces used for the storage of combustible supplies in quantities deemed hazardous by the authority having jurisdiction.
 - (c) Rooms or spaces used for the storage of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.
 - (d) Janitor closets.
 - (e) Laundries over 9.3 m² (100 sq ft²).
- (2) Separation from the remainder of the building by fire barriers having a fire resistance rating of not less than 1 hour and protection of such rooms by automatic extinguishing systems as specified in 8.7 in the following areas:
 - (a) Maintenance shops, including woodworking and painting areas.
 - (b) Rooms or spaces used for processing or use of combustible supplies deemed hazardous by the authority having jurisdiction.
 - (c) Rooms or spaces used for processing or use of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.
- (3) Where automatic extinguishing is used to meet the requirements of 15.3.2.1(1) or 15.3.2.1(2), the protection shall be permitted in accordance with 9.7.1.2.
- (4) Where janitor closets addressed in 15.3.2.1(1)(d) are protected in accordance with the sprinkler option of 15.3.2.1(1), the janitor closet doors shall be permitted to have ventilating louvers.

Chapter 15 of the Connecticut State Fire Safety Code is amended by adding the following:

(Add) **15.1.4.1.1** Buildings or spaces where training and skill development occur not within a school or academic program shall be classified as business occupancies.

(Amd) **15.2.11.1.1** Every room or space greater than 23.2 m² (250 ft²) and used for classroom or other educational purposes or normally subject to student occupancy shall have not less than one outside window for emergency escape/ventilation and rescue with an associated opening in the outside wall that complies with the following, unless otherwise permitted by 15.2.11.1.2:

- (1) Such windows shall be openable from the inside without the use of tools and shall provide a clear opening of not less than 560 mm (22 in.) in width, 560 mm (22 in.) in height and 0.31 m² (3.3 ft²) in area.
- (2) The bottom of the opening shall be not more than 1120 mm (44 in.) above the floor, and any latching device shall be capable of being operated from not more than 1370 mm (54 in.) above the finished floor.
- (3) The opening in the outside wall for rescue shall allow a rectangular solid, with a width and height that provides not less than a 0.5 m² (5.7 ft²) opening and a depth of not less than 510 mm (20 in.), to pass fully through the opening.

(Amd) **15.3.6 Corridors.** Corridors shall be separated from other parts of the story by walls having a ½-hour fire resistance rating in accordance with Section 8.3, unless otherwise permitted by the following.

- (1) Corridor protection shall not be required where all spaces normally subject to student occupancy have not less than one door opening directly to the outside or to an exterior exit access balcony or corridor in accordance with 7.5.3.
- (2)* In buildings protected throughout by an approved automatic sprinkler system with valve supervision in accordance with Section 9.7, corridor walls shall not be required to be rated.
- (3) Where the corridor ceiling is an assembly having a ½-hour fire resistance rating where tested as a wall, the corridor wall shall be permitted to terminate at the corridor ceiling.
- (4) Lavatories shall not be required to be separated from corridors, provided that they are separated from all other spaces by walls having not less than a ½-hour fire resistance rating in accordance with Section 8.3.
- (5) Lavatories shall not be required to be separated from corridors, provided the building is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
- (6) Existing doors in ½-hour fire resistance rated corridor walls shall be permitted to be 44-mm (1¾-in.) thick solid-bonded wood core doors or the equivalent.

Chapter 17, Section 17.3.2.1, of the Connecticut State Fire Safety Code is amended to read:

(Amd) **17.3.2.1** Rooms or spaces for the storage, processing, or use of materials specified in 17.3.2.1(1) through 17.3.2.1(3) shall be protected in accordance with the following:

- (1) Separation from the remainder of the building by fire barriers having a fire resistance rating of not less than 1 hour or protection of such rooms, by automatic extinguishing systems as specified in 8.7, in the following areas:
 - (a) Boiler and furnace rooms where any piece of equipment is over 400,000 Btu per hour input or any boiler over 15 psi and 10 horsepower, unless such rooms enclose only air-handling equipment.
 - (b) Rooms or spaces used for the storage of combustible supplies in quantities deemed hazardous by the authority having jurisdiction.
 - (c) Rooms or spaces used for the storage of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.
 - (d) Janitor closets.
 - (e) Laundries over 9.3 m² (100 sq ft²).
- (2) Separation from the remainder of the building by fire barriers having a fire resistance rating of not less than 1 hour and protection of such rooms by automatic extinguishing systems as specified in 8.7 in the following areas:
 - (a) Maintenance shops, including woodworking and painting areas.
 - (b) Rooms or spaces used for processing or use of combustible supplies deemed hazardous by the authority having jurisdiction.
 - (c) Rooms or spaces used for processing or use of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards.
- (3) Where automatic extinguishing is used to meet the requirements of 17.3.2.1(1) and 17.3.2.1(2), the protection shall be permitted in accordance with 9.7.1.2.

Chapter 17 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **17.2.11.1.1** Every room or space greater than 23.2 m² (250 ft²) and used for classroom or other educational purposes or normally subject to student occupancy shall have not less than one outside window for emergency escape/ventilation and rescue with an associated opening in the outside wall that complies with the following, unless otherwise permitted by 17.2.11.1.2:

- (1) Such windows shall be openable from the inside without the use of tools and shall provide a clear opening of not less than 560 mm (22 in.) in width, 560 mm (22 in.) in height and 0.31 m² (3.3 ft²) in area.
- (2) The bottom of the opening shall be not more than 1120 mm (44 in.) above the floor, and any latching device shall be capable of being operated from not more than 1370 mm (54 in.) above the

finished floor.

- (3) The opening in the outside wall for rescue shall allow a rectangular solid, with a width and height that provides not less than a 0.5 m² (5.7 ft²) opening and a depth of not less than 510 mm (20 in.), to pass fully through the opening.

(Amd) **17.2.11.1.2** The requirements of 17.2.11.1.1 shall not apply when the provisions of 15.2.11.1.2 are met.

(Amd) **17.3.6 Corridors.** Every interior corridor shall be constructed of walls having not less than a ½-hour fire resistance rating in accordance with Section 8.3, unless otherwise permitted by the following:

- (1) Corridor protection shall not be required where all spaces normally subject to student occupancy have not less than one door opening directly to the outside or to an exterior exit access balcony or corridor in accordance with 7.5.3.
- (2) In buildings protected throughout by an approved automatic sprinkler system with valve supervision in accordance with Section 9.7.
- (3) Where the corridor ceiling is an assembly having a ½-hour fire resistance rating where tested as a wall, the corridor walls shall be permitted to terminate at the corridor ceiling.
- (4) Lavatories shall not be required to be separated from corridors, provided that they are separated from all other spaces by walls having not less than a ½-hour fire resistance rating in accordance with Section 8.3.
- (5) Lavatories shall not be required to be separated from corridors, provided the building is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
- (6) Existing doors in ½-hour fire resistance rated corridors shall be permitted to be 44-mm (1¾-in.) thick, solid-bonded wood core doors or the equivalent.

(Amd) **17.6.1.1.2*** The requirements of Section 17.6 shall apply to existing day-care homes in which more than three, but not more than 12, clients receive care, maintenance, and supervision by other than their relative(s) or legal guardian(s) for less than 24 hours per day, generally within a dwelling unit.

(Amd) **17.6.1.4.2* Conversions.** A conversion from a day-care home to a day-care occupancy with more than 12 clients shall be permitted only if the day-care occupancy conforms to the requirements for new day-care occupancies with more than 12 clients.

Chapter 19, Section 19.3.2.1.5, of the Connecticut State Fire Safety Code is amended to read:

(Amd) **19.3.2.1.5** Hazardous areas shall include, but shall not be restricted to, the following:

- (1) Boiler and fuel-fired heater rooms where any piece of equipment is over 400,000 Btu per hour input or any boiler over 15 psi and 10 horsepower.
- (2) Central/bulk laundries larger than 9.3 m² (100 ft²).
- (3) Paint shops.
- (4) Repair shops.
- (5) Soiled linen rooms.
- (6) Trash collection rooms.
- (7) Rooms or spaces larger than 4.6 m² (50 ft²), including repair shops, used for storage of combustible supplies and equipment in quantities deemed hazardous by the authority having jurisdiction.
- (8) Laboratories employing flammable or combustible materials in quantities less than those that would be considered a severe hazard.

Chapter 19 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **19.1.1.1.5** It shall be recognized that, in buildings housing certain types of patients or having detention rooms or a security section, it might be necessary to lock doors and bar windows to confine and protect building inhabitants. In such instances, the State Fire Marshal shall make appropriate modifications to those sections of this code that would otherwise require means of egress to be kept unlocked.

Chapter 24 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **24.2.2.3* Secondary Means of Escape.** The secondary means of escape, other than existing approved means of escape, shall be one of the means specified in 24.2.2.3(A) through 24.2.2.3(C).

(A) It shall be a door, stairway, passage, or hall providing a way of unobstructed travel to the outside of the dwelling at street or ground level that is independent of and remote from the primary means of escape.

(B) It shall be a passage through an adjacent nonlockable space, independent of and remote from the primary means of escape, to any approved means of escape.

(C)* It shall be a window or door providing a clear opening in the outside wall of not less than 0.53 m² (5.7 ft²) for access into the building. The window opening for escape/ventilation by occupants shall provide a clear opening of not less than 560 mm

(22 in.) in least dimension for height and width and 0.31 m² (3.3 ft²) in total area. This window shall be operable from the inside by occupants without the use of tools, keys, or special effort. The bottom of the opening shall be not more than 1120 mm (44 in.) above the floor. Such means of escape shall be acceptable where one of the following criteria are met:

(1) The window shall be within 6100 mm (240 in.) of grade.

(2) The window shall be directly accessible to fire department rescue apparatus as approved by the authority having jurisdiction.

(3) The window or door shall open onto an exterior balcony.

(4) Windows having a sill height below the adjacent ground level shall be provided with a window well meeting the following criteria:

(a) The window well shall have horizontal dimensions that allow the window to be fully opened.

(b) The window well shall have an accessible net clear opening of not less than 0.82 m² (9 ft²) with a length and width of not less than 915 mm (36 in.).

(c) A window well with a vertical depth of more than 1120 mm (44 in.) shall be equipped with an approved permanently affixed ladder or with steps meeting the following criteria:

i. The ladder or steps shall not encroach more than 150 mm (6 in.) into the required dimensions of the window well.

ii. The ladder or steps shall not be obstructed by the window.

(D) Ladders or steps that comply with the requirements of 24.2.2.3(C)(4)(c) shall be exempt from the requirements of 7.2.2.

(Add) **24.2.2.3.1 Alternative Compliance to 24.2.2.3 (C)**. The 1120 mm (44 in.) maximum height of the sill above the floor level shall be permitted to be measured vertically above a fixed, permanent platform, step, or steps whose minimum width shall equal or exceed the width of the opening and a maximum riser height of 205 mm (8 in.) and a minimum tread depth of 230 mm (9 in.).

(Amd) **24.2.5.1.1** The provisions of 7.2.2.5, 7.2.5.5 and 7.7.3 shall not apply. Maximum riser heights of 209 mm (8¼ in.) and minimum tread depths of 229 mm (9 in.) shall be permitted.

Chapter 26 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **26.3.5.1** All lodging or rooming houses, other than those meeting 26.3.5.2, shall be protected throughout by an approved automatic sprinkler system in accordance with 26.3.5.3.

Chapter 29, Table 29.3.2.2.2 and Section 29.3.4.5.1, of the Connecticut State Fire Safety Code are amended to read:

(Amd) Table 29.3.2.2.2 Hazardous Area Protection

Hazardous Area Description	Separation/Protection
Boiler and fuel-fired heater rooms where any piece of equipment is over 400,000 Btu per hour input or any boiler over 15 psi and 10 horsepower	1 hour or sprinklers
Employee locker rooms	1 hour or sprinklers [†]
Gift or retail shops	1 hour or sprinklers
Bulk laundries	1 hour or sprinklers
Guest laundries outside of guest rooms or guest suites	1 hour or sprinklers [†]
Maintenance shops	1 hour or sprinklers
Rooms or spaces used for storage of combustibile supplies and equipment in quantities deemed hazardous by the authority having jurisdiction [‡]	1 hour or sprinklers
Trash collection rooms	1 hour or sprinklers

[†]Where automatic sprinkler protection is provided, no enclosure shall be required.

[‡]Where storage areas not exceeding 2.2 m² (24 ft²) are directly accessible from the guest room or guest suite, no separation or protection shall be required.

(Amd) **29.3.4.5.1** Each hotel, motel or inn having 100 or more units or rooms shall install such equipment which, when activated, shall provide an approved visible alarm suitable to warn occupants, in at least one per cent of the units or rooms in such establishments. In establishments having less than 100 units or rooms, at least one unit or room shall have such an alarm.

Chapter 29 of the Connecticut State Fire Safety Code is amended by adding the following:

(Del) **29.3.4.3.3** Delete section.

Chapter 31 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **31.2.2.2.2** Door locking arrangements shall comply with 31.2.2.2.2.1, 31.2.2.2.2.2 or 31.2.2.2.2.3.

(Add) **31.2.11.1** The provisions of 31.2.11 shall not apply to existing dormitories.

Chapter 31, Section 31.3.2.1.1.2, of the Connecticut State Fire Safety Code is amended to read:

(Add) **31.3.2.1.1.2** The protection requirements of Table 31.3.2.1.1 shall apply to those boiler and fuel-fired heater rooms where any piece of equipment is over 400,000 Btu per hour input or any boiler over 15 psi and 10 horsepower.

Chapter 33 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **33.1.7 Changes in Group Evacuation Capability.** A change in evacuation capability to a slower level shall be permitted where the facility conforms to the requirements applicable to the slower evacuation capability in this chapter.

Chapter 33, Section 33.3.3.2.2, of the Connecticut State Fire Safety Code is amended to read:

(Amd) **33.3.3.2.2** Hazardous areas, which shall include, but shall not be limited to, the following, shall be separated from other parts of the building by construction having a fire resistance rating of not less than 1 hour, with communicating openings protected by approved self-closing fire doors, or such area shall be equipped with automatic fire extinguishing systems:

- (1) Boiler and heater rooms where any piece of equipment is over 400,000 Btu per hour input or any boiler over 15 psi and 10 horsepower.
- (2) Laundries.
- (3) Repair shops.
- (4) Rooms or spaces used for storage of combustible supplies and equipment in quantities deemed hazardous by the authority having jurisdiction.

Chapter 37, Sections 37.2.4.1 and 37.3.2.1.1, of the Connecticut State Fire Safety Code are amended to read:

(Add) **37.2.4.1** Exits shall comply with the following except as otherwise permitted by 37.2.4.2 through 37.2.4.6, inclusive:

- (1) The number of exits shall be in accordance with section 7.4.
- (2) Not less than two separate exits shall be provided on every story.
- (3) Not less than two separate exits shall be accessible from every part of every story.

(Amd) **37.3.2.1.1** Hazardous areas shall be protected in accordance with 8.7. Furnace or boiler rooms shall be considered hazardous where any piece of equipment is over 400,000 Btu per hour input or any boiler over 15 psi and 10 horsepower.

Chapter 37 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **37.4.4.8 Kiosks.** Kiosks and similar structures (temporary or permanent) shall not be considered as tenant spaces and shall meet the following requirements:

- (1) Combustible kiosks and similar structures shall be constructed of any of the following materials:
 - (a) Fire retardant-treated wood complying with the requirements for fire retardant-impregnated wood in NFPA 703, *Standard for Fire Retardant Impregnated Wood and Fire Retardant Coatings for Building Materials*.
 - (b) Light-transmitting plastics complying with Chapter 26 of the State Building Code.
 - (c) Foam plastics having a maximum heat release rate not greater than 100 kW when tested in accordance with UL 1975.
 - (d) Aluminum composite material (ACM) having a Class A rating as specified in Chapter 10 when tested as an assembly in the maximum thickness intended for use.
 - (e) Textiles and films determined to be flame resistant in accordance with NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*.
- (2) Kiosks or similar structures located within the mall shall be protected with approved fire suppression and detection devices.
- (3) The minimum horizontal separation between kiosks or groups of kiosks and other structures within the mall shall be 6100 mm (240 in.).
- (4) Each kiosk or group of kiosks or similar structure shall have a maximum area of 27.8 m² (300 ft²).

(Amd) **37.4.5.3.1** The storage, arrangement, protection and quantities of hazardous commodities shall be in accordance with the applicable

portions of the following:

- (1) NFPA 13, *Standard for the Installation of Sprinkler Systems*.
- (2) NFPA 30, *Flammable and Combustible Liquids Code*.
- (3) NFPA 30B, *Code for the Manufacture and Storage of Aerosol Products*.
- (4) NFPA 230, *Standard for the Fire Protection of Storage*.
- (5) NFPA 430, *Code for the Storage of Liquid and Solid Oxidizers*.
- (6) NFPA 432, *Code for the Storage of Organic Peroxide Formulations*.
- (7) NFPA 434, *Code for the Storage of Pesticides*.
- (8) NFPA 1124, *Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles as amended by Part V Section 20.2.12.2.4*.

Chapter 39, Sections 39.2.4.1 and 39.3.2.1, of the Connecticut State Fire Safety Code are amended to read:

(Add) **39.2.4.1** Exits shall comply with the following except as otherwise permitted by 39.2.4.2 through 39.2.4.7:

- (1) The number of exits shall be in accordance with 7.4.1.1 and 7.4.1.3 through 7.4.1.6.
- (2) Not less than two separate exits shall be provided on every story.
- (3) Not less than two separate exits shall be accessible from every part of every story.

(Amd) **39.3.2.1*** Hazardous areas including, but not limited to, areas used for general storage, boiler or furnace rooms where any piece of equipment is over 400,000 Btu per hour input or any boiler over 15 psi and 10 horsepower, and maintenance shops that include woodworking and painting areas shall be protected in accordance with 8.7.

Chapter 39 of the Connecticut State Fire Safety Code is amended by adding the following:

(Add) **39.1.4.1 In-home Group B Occupancies**. Customary in-home business occupancies located within a single-family dwelling unit, that provide professional services and employ a maximum of one employee within the dwelling in addition to the residents of the dwelling unit, shall be classified as a single-family Residential occupancy.

PART V ~ MAINTENANCE AND OPERATIONAL ISSUES

Chapter 10 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **10.4.1** Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, or any other feature is required for compliance with the provisions of this code or the State Building Code, such device, equipment, system, condition, arrangement, level of protection, or other feature shall thereafter be continuously maintained in accordance with applicable NFPA requirements or as directed by the AHJ.

(Amd) **10.4.3*** Existing fire and life safety features obvious to the public, if not required by this code or the State Building Code, shall be either maintained or removed.

Chapter 10 of the Connecticut State Fire Safety Code is amended to read:

Retain deletion of Section 10.14 and replace in its entirety as follows:

(Add) **10.14 – Vacant Buildings and Premises**

(Add) **10.14.1 General.** Temporarily unoccupied buildings, structures, premises or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with section 10.14.

(Add) **10.14.1.1 Abandoned Premises.** Buildings, structures and premises for which an owner cannot be identified or located by dispatch of a certificate of mailing to the last known or registered address, which persistently or repeatedly become unprotected or unsecured; which have been occupied by unauthorized persons or for illegal purposes; or which present a danger of structural collapse or fire spread to adjacent properties shall be considered abandoned, declared unsafe and abated or demolished in accordance with this code.

(Add) **10.14.2 Safeguarding Vacant Premises.** Temporarily unoccupied buildings, structures, premises or portions thereof shall be secured and protected in accordance with section 10.14.

(Add) **10.14.2.1 Security.** Exterior openings and interior openings accessible to other tenants or unauthorized persons shall be boarded, locked, blocked or otherwise protected to prevent entry by unauthorized individuals.

(Add) **10.14.2.2 Fire Protection.** Fire alarm, sprinkler and standpipe systems shall be maintained in an operable condition at all times.

Exceptions:

1. When the premises have been cleared of all combustible materials and debris and, in the opinion of the code official, the type of construction, fire separation distance and security of the premises do not create a fire hazard.
2. Where buildings will not be heated and fire protection systems will be exposed to freezing temperatures, fire alarm and sprinkler systems are permitted to be placed out of service and standpipes are permitted to be maintained as dry systems (without an automatic water supply) provided the building has no contents or storage, and windows, doors and other openings are secured to prohibit entry by unauthorized persons.

(Add) **10.14.2.3 Fire Separation.** Fire-resistance-rated partitions, fire barriers and fire walls separating vacant tenant spaces from the remainder of the building shall be maintained.

(Add) **10.14.3 Removal of Combustibles.** Persons owning, or in charge or control of, a vacant building or portion thereof, shall remove all accumulations of combustible materials and flammable or combustible waste or rubbish from such space. The premises shall be maintained clear of waste or hazardous materials.

Exceptions:

1. Buildings or portions of buildings undergoing additions, alterations, repairs or change of occupancy under a valid permit in accordance with this code.
2. Seasonally occupied buildings.

(Add) **10.14.4 Removal of Hazardous Materials.** Persons owning, in charge of, or control of a vacant building or portion thereof, shall remove all accumulations of hazardous materials as defined by this code.

Chapter 13, Section 13.6.1.2, of the Connecticut State Fire Safety Code is amended to read:

(Amd) **13.6.1.2* Where Required.** Fire extinguishers shall be provided as follows:

- (1) Where required by other parts of this code.

- (2) As specified in 13.6.1.2.1 through 13.1.2.6, inclusive.
- (3) Where required by the referenced codes and standards listed in Chapter 2 and Part II of this code.

Chapter 13 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **13.7.4.4.1** The maintenance and testing schedules and procedures for fire alarm and fire detection systems shall be in accordance with Chapter 10 of *NFPA 72®*, *National Fire Alarm Code®*.

Chapter 14 of the Connecticut State Fire Safety Code is amended by adding the following:

(Add) **14.4.3.1 Security Devices.** Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premises shall be prohibited.

Chapter 20, Sections 20.1.4.9, 20.2.3.3.5, 20.3.3.2.3.4, 20.3.3, 20.6, 20.10, 20.12.2.4, and 20.12.2.4.3, of the Connecticut State Fire Safety Code are amended to read:

(Amd) **20.3.3 Additional Requirements.**

(Amd) **20.6 Ambulatory Health Care Centers, including Business Group B Medical Occupancies.**

(Add) **20.12.2.4 Storage and Display of Consumer Fireworks.** The display and storage of consumer fireworks at retail establishments shall be in accordance with the provisions of the 2006 edition of NFPA 1124, *Code for the Manufacture, Transportation, Storage, and Retail Sales of Fire Works and Pyrotechnic Articles*, except as modified in Sections 20.12.2.4.1 through 20.12.2.4.3, inclusive.

(Add) **20.12.2.4.3** The provisions of NFPA 1124 are amended for use in Connecticut as follows:

(Amd) **7.5.3 Storage Rooms.** Storage rooms containing consumer fireworks, regardless of size, in a new or existing permanent store shall be protected with an automatic sprinkler system installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, or separated from the retail sales area by a fire barrier having a fire resistance rating of not less than 1 hour. The quantity of fireworks permitted in storage shall not exceed 3,600 cubic feet, including packaging. Such storage shall be segregated into areas of 1,200 cubic feet or less, separated by a minimum of 4 feet of clear space.

Chapter 20 of the Connecticut State Fire Safety Code is amended by adding the following:

(Amd) **20.2.3.1.2** Emergency egress and relocation drills shall be conducted as follows:

- (1) Not less than one emergency egress and relocation drill shall be conducted every month the facility is in session, unless both of the following criteria are met:
 - (a) In climates where the weather is severe, the monthly emergency egress and relocation drills shall be permitted to be deferred.
 - (b) The required number of emergency egress and relocation drills shall be conducted, and not less than four shall be conducted before the drills are deferred.
- (2) All occupants of the occupancy shall participate in the drill.
- (3) One additional emergency egress and relocation drill, other than for educational occupancies that are open on a year-round basis, shall be required within the first 30 days of operation.

(Amd) **20.3.3.2.2.2** Emergency egress and relocation drills shall be conducted as follows:

- (1) Not less than one emergency egress and relocation drill shall be conducted every month the facility is in session, unless both of the following criteria are met:
 - (a) In climates where the weather is severe, the monthly emergency egress and relocation drills shall be permitted to be deferred.
 - (b) The required number of emergency egress and relocation drills shall be conducted, and not less than four shall be conducted before the drills are deferred.
- (2) All occupants of the occupancy shall participate in the drill.
- (3) One additional emergency egress and relocation drill, other than for educational occupancies that are open on a year-round basis, shall be required within the first 30 days of operation.

(Add) **20.10.3 Emergency Instructions for Residents or Guests.** A floor diagram reflecting the actual floor arrangement, exit and escape locations, and room identification shall be posted in a location and manner acceptable to the AHJ on, or immediately adjacent to, every resident residential room.

(Adopted effective August 1, 2009; amended October 2, 2012)

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Classes of Certification and Standards of Qualification for Local Fire Marshals, Deputy Fire Marshals, Fire Inspectors, and Other Local Fire Officials

Sec. 29-298-1. Definitions

(a) As used herein, “certificate” means the written document issued by the State Fire Marshal and the Codes and Standards Committee stating that the holder is eligible to be certified.

(b) As used herein, “candidate” means a person who holds a certificate.

(c) As used herein, “eligible to be certified” means that a person has (1) successfully passed an oral, written, or practical examination approved by the State Fire Marshal and Codes and Standards Committee, or (2) successfully completed a program or programs of training developed by public agencies and approved by the State Fire Marshal and Codes and Standards Committee, or (3) successfully completed the Fire Marshal/Inspector Certification Course administered by the Bureau of State Fire Marshal and approved by the State Fire Marshal and Codes and Standards Committee.

(d) As used herein, “certified” means a candidate holds a certificate and has met the standards for certification.

(Effective September 27, 1988)

Sec. 29-298-2. Classes of certification of local fire officials

There shall be six classes of local fire officials:

- (a) Fire Safety Code Inspector;
- (b) Hazardous Materials Inspector;
- (c) Fire Investigator;
- (d) Fire Inspector;
- (e) Deputy Fire Marshal; and
- (f) Fire Marshal.

(Effective September 27, 1988)

Sec. 29-298-3. Fire safety code inspector

(a) A fire safety code inspector is a person who has been appointed and certified after having demonstrated the knowledge and ability to perform the duties and carry out the responsibilities set forth in the Connecticut Fire Safety Code and sections of the Connecticut General Statutes as they relate to the Connecticut Fire Safety Code.

(b) A fire safety code inspector carries out fire safety code inspection activities at the direction of the local fire marshal and under such supervision as the local fire marshal deems appropriate.

(Effective September 27, 1988)

Sec. 29-298-4. Hazardous materials inspector

(a) A hazardous materials inspector is a person who has been appointed and certified after having demonstrated the knowledge and ability to perform the duties and carry out the responsibilities set forth in Chapter 541 of the Connecticut General Statutes as well as adopted standards and regulations concerning hazardous materials.

(b) A hazardous materials inspector carries out inspection activities concerning hazardous materials at the direction of the local fire marshal and under such supervision as the local fire marshal deems appropriate.

(Effective September 27, 1988)

Sec. 29-298-5. Fire investigator

(a) A fire investigator is a person who has been appointed and certified after having demonstrated the knowledge and ability to perform the duties of and carry out the responsibilities of Chapter 541 of the Connecticut General Statutes, as well as other sections of the General Statutes, as they relate to the investigation of fire, explosion, and the crime of arson.

(b) A fire investigator performs investigations of fire, explosion, and the crime of arson at the direction of the local fire marshal and under such supervision as the local fire marshal deems appropriate.

(Effective September 27, 1988)

Sec. 29-298-6. Fire inspector

(a) A fire inspector is a person who has been appointed and certified after having demonstrated the knowledge and ability to perform the duties of and carry out the responsibilities of a local fire marshal as set forth in the statutes and regulations of the State of Connecticut.

(b) A fire inspector performs duties at the direction of and under such supervision as the local fire marshal deems appropriate.

(Effective September 27, 1988)

Sec. 29-298-7. Deputy fire marshal

(a) A deputy fire marshal is a person who has been appointed and certified after having demonstrated the knowledge and ability to perform the duties of and carry out the responsibilities of a local fire marshal as set forth in the statutes and regulations of the State of Connecticut.

(b) A deputy fire marshal performs duties at the direction of and under such supervision as the local fire marshal deems appropriate.

(Effective September 27, 1988)

Sec. 29-298-8. Fire marshal

(a) A fire marshal is a person who has been appointed and certified after having demonstrated the knowledge and ability to perform the duties of and carry out the responsibilities of a local fire marshal as set forth in the statutes and regulations of the State of Connecticut.

(b) A fire marshal performs, or causes to be performed, the duties of a local fire marshal and ensures that the responsibilities of a local fire marshal are carried out as set forth in the statutes and regulations of the State of Connecticut.

(Effective September 27, 1988)

Sec. 29-298-9. Minimum standards of qualification of fire marshals, deputy fire marshals, and fire inspectors

In order to meet the minimum standard of qualification for fire marshal, deputy fire marshal or fire inspector, an individual must:

(a) hold a certificate issued by the State Fire Marshal and the Codes and Standards Committee;

(b) have been appointed and sworn, if applicable, in accordance with the Connecticut General Statutes;

(c) be certified by the State Fire Marshal and the Codes and Standards Committee.

(Effective September 27, 1988)

Sec. 29-298-10. Minimum standards of qualification of other classes of local fire officials

In order to meet the minimum standard of qualification for other classes of local fire officials, an individual must:

- (a) hold a certificate issued by the State Fire Marshal and the Codes and Standards Committee for the position to which the individual desires appointment;
 - (b) have been appointed by the local appointing authority;
 - (c) have a copy of the appointment on file with the State Fire Marshal; and
 - (d) be certified by the State Fire Marshal and the Codes and Standards Committee for the appropriate class of local fire official.
- (Effective September 27, 1988)

Sec. 29-298-11. Issuance and lapse of certificates

- (a) A certificate shall be issued by the State Fire Marshal and the Codes and Standards Committee upon a determination that an individual is eligible to be certified.
 - (b) In the event that a person holding a certificate is not appointed to a position commensurate with such certificate, the certificate shall be of no effect under these regulations after the passage of three years next following the date of the certificate.
 - (c) In the event that a person appointed to a position commensurate with a certificate ceases to hold the position, then the certificate shall be of no effect under these regulations after the passage of three years next following the date upon which the person ceased to hold the position.
- (Effective September 27, 1988)

Sec. 29-298-12. Eligibility for certification to more than one class of local fire official

- (a) A candidate for Fire Inspector is also qualified as a candidate for Deputy Fire Marshal and Fire Marshal;
 - (b) a candidate for Deputy fire Marshal is also qualified as a candidate for Fire Marshal.
- (Effective September 27, 1988)

Sec. 29-298-13. Multiple candidacies

A person who is a candidate for Fire Safety Code Inspector, Hazardous Materials Inspector, and Fire Investigator concurrently is also qualified to be a candidate for Fire Inspector, Deputy Fire Marshal and Fire Marshal.

(Effective September 27, 1988)

Sec. 29-298-14. Certification of local fire marshals

The State Fire Marshal and the Codes and Standards Committee shall certify a candidate as a Fire Marshal upon the receipt of the report of the Town Clerk pursuant to Connecticut General Statutes Chapter 541, Section 29-297.

(Effective September 27, 1988)

Sec. 29-298-15. Certification of other classes of local fire officials

The State Fire Marshal and the Codes and Standards Committee shall certify a candidate as a fire safety code inspector, hazardous materials inspector, fire investigator, fire inspector, or deputy fire marshal upon receipt by the State Fire Marshal of a copy of the appointment of the candidate as such fire officer.

(Effective September 27, 1988)

Sec. 29-298-16. Minimum hours of continuing education and training required to maintain certification

- (a) The minimum hours required to maintain certification for fire inspectors, deputy fire marshals and fire marshals shall be as set forth in Chapter 541 of the Connecticut General Statutes.

(b) The minimum hours required to maintain certification for other classes of fire officials shall consist of not less than thirty hours over a three-year period.
(Effective July 25, 1990)

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Portable Fire Extinguishers**Secs. 29-313-1—29-313-2.**

Repealed, June 15, 1994.

Use or Installation of Fire Extinguishers and Extinguishing Agents**Sec. 29-313-1a. Standard**

The standard for the use or installation of fire extinguishers and fire extinguishing agents shall be that standard of the National Fire Protection Association referenced in the Connecticut Fire Safety Code as it may, from time to time, be amended.

Copies of the standard are available by writing the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269 or by telephoning the National Fire Protection Association at 1-800-344-3555.

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Sprinklers in Hotels and Motels

Sec. 29-315-1. Sprinklers in hotels and motels

Each hotel or motel having six or more guest rooms and providing sleeping accommodations for more than sixteen persons for which a building permit is issued for new occupancy on or after January 1, 1987 shall have an automatic extinguishing system installed on each floor in accordance with the requirements of the Connecticut Basic Building Code and the Connecticut Fire Safety Code, as they may from time to time be amended.

(Effective February 25, 1988)

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**Nationally Recognized Laboratories Acceptable for
Approving Fuel Oil Burners**

Sec. 29-316-1.

Repealed, January 28, 2000.

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Installation of Oil Burners and Equipment

Secs. 29-317-1—29-317-4.

Repealed, January 24, 1997.

Connecticut Oil Burning Equipment Code

Sec. 29-317-1a. The Connecticut oil burning equipment code: Purpose and applicability

(a) Regulations of the Department of Public Safety, Sections 29-317-1a to 29-317-3a, inclusive, shall be known as the Connecticut Oil Burning Equipment Code. Sections 29-317-1a to 29-317-3a, inclusive, shall be referred to as “this code” or “the code,” and may be cited as such, and are adopted under the authority of Connecticut General Statutes Section 29-317.

(b) This code shall apply to the design, construction, installation and operation of oil burners and equipment used in connection therewith, including tanks, piping, pumps, control devices and accessories.

(c) Chimneys, fireplaces, vents and solid fuel burning appliances shall be installed in accordance with the provisions of the Connecticut State Building Code as it from time to time may be amended.

(d) This code shall not apply to public service companies, as defined in Section 16-1 of the Connecticut General Statutes.

(Adopted, effective January 24, 1997)

Sec. 29-317-2a. Authority having jurisdiction

As used in Sections 29-317-1a to 29-317-3a, inclusive:

(a) “The authority having jurisdiction” shall mean the Commissioner of Public Safety. The Commissioner of Public Safety is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within this code.

(b) The local fire marshal shall make the initial determination concerning compliance with this code except as stated otherwise in the wording of a section.

(Adopted, effective January 24, 1997)

Sec. 29-317-3a. Adopted standard

(a) The following standard promulgated by the National Fire Protection Association (NFPA) is hereby adopted as part of this code:

NFPA 31-1992, Standard for the Installation of Oil Burning Equipment.

(b) The standards promulgated by the National Fire Protection Association, (NFPA), are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, Massachusetts 02269; telephone number, 1-800-344-3555. Copies of these regulations are available from the Department of Public Safety, Division of Fire, Emergency and Building Services, P.O. Box 2794, Middletown, Connecticut 06457-9294; telephone number, (860) 685-8380.

(Adopted, effective January 24, 1997)

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and Combustible Liquids**

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Storage, Use and Transportation of Flammable and Combustible Liquids

Secs. 29-320-1—29-320-4.

Repealed, January 24, 1997.

Connecticut Flammable and Combustible Liquids Code

Sec. 29-320-1a. The Connecticut flammable and combustible liquids code: Purpose and applicability

(a) Regulations of the Department of Public Safety, Sections 29-320-1a to 29-320-4a, inclusive, shall be known as the Connecticut Flammable and Combustible Liquids Code. Sections 29-320-1a to 29-320-4a, inclusive, shall be referred to as “this code” or “the code,” and may be cited as such, and are adopted under the authority of Connecticut General Statutes Section 29-320.

(b) This code shall apply to the design, construction, installation and operation of equipment and systems for the storage, use, transportation by any mode and the transmission by pipeline of flammable or combustible liquids.

(c) This code shall not apply to electric companies and gas companies, as defined in Section 16-1 of the Connecticut General Statutes.

(Adopted, effective January 24, 1997)

Sec. 29-320-2a. Authority having jurisdiction

As used in Sections 29-320-1a to 29-320-4a, inclusive:

(a) “The authority having jurisdiction” shall mean the Commissioner of Public Safety. The Commissioner of Public Safety is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within this code.

(b) The local fire marshal shall make the initial determination concerning compliance with this code except as stated otherwise in the wording of a section.

(Adopted, effective January 24, 1997)

Sec. 29-320-3a. Adopted standards

(a) The following standards promulgated by the National Fire Protection Association (NFPA) are hereby adopted as part of this code:

- | | |
|----------------|--|
| NFPA 30-1996, | Flammable and Combustible Liquids Code; |
| NFPA 30A-1996, | Automotive and Marine Service Station Code, except as amended, altered or deleted and by the addition of certain provisions as indicated in Section 29-320-11a of this code; |
| NFPA 30B-1994, | Code for the Manufacture and Storage of Aerosol Products; |
| NFPA 34-1995, | Standard for Dipping and Coating Processes Using Flammable and Combustible Liquids; |
| NFPA 35-1995, | Standard for the Manufacture of Organic Coatings; |
| NFPA 37-1994, | Standard for Installation and Use of Stationary Combustion Engines and Gas Turbines; |
| NFPA 327-1993, | Standard Procedures for Cleaning or Safeguarding Small Tanks and Containers; |

- NFPA 385-1990, Standard for Tank Vehicles for Flammable and Combustible Liquid;
- NFPA 395-1993, Standard for the Storage of Flammable and Combustible Liquids on Farms and Isolated Construction Projects;
- NFPA 407-1996, Standard for Aircraft Fuel Servicing;
- NFPA 415-1992, Standard for Aircraft Fueling Ramp Drainage.

(b) The standards promulgated by the National Fire Protection Association, (NFPA), are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, Massachusetts 02269; telephone number, 1-800-344-3555. Copies of this code are available from the Department of Public Safety, Division of Fire, Emergency and Building Services, P.O. Box 2794, Middletown, Connecticut 06457-9294; telephone number, (860) 685-8380.

(Adopted, effective January 24, 1997)

Sec. 29-320-4a. Connecticut Supplement to NFPA 30A-1996

The National Fire Protection Association, Inc., NFPA 30A-1993, Automotive and Marine Service Stations Code, is amended to meet the needs of Connecticut as follows:

CHAPTER 1 GENERAL PROVISIONS

(Amd) 1-2. Add or amend the following new definitions as appropriate:

Public Service Stations

Liquid motor fuel dispensing facilities open to the general motoring or boating public with at least one attendant on duty while the station is open for business to store and dispense liquids into the fuel tanks of motor vehicles or self propelled water crafts (boats).

CHAPTER 2 STORAGE

(Add) 2-4.1.2. Aboveground tanks storing Class I liquids at automotive and marine service stations shall be fire resistant tanks (see Section 2-4.5).

(Amd) 9-3.4. The provisions of Section 2-1.1 shall not prohibit the dispensing of diesel motor fuel liquids in the open from a tank vehicle to a motor vehicle located at commercial, industrial, governmental, or manufacturing establishments, and intended for fueling vehicles used in connection with their businesses. Such dispensing may be permitted provided:

- (a) An inspection of the premises and operations has been made and approval granted by the authority having jurisdiction;
- (b) The tank vehicle complies with the requirements covered in NFPA 385, "Standard for Tank Vehicles for Flammable and Combustible Liquids;"
- (c) The dispensing hose does not exceed 50 ft (15m) in length;
- (d) The dispensing nozzle is a listed automatic-closing type without a latch-open device;
- (e) Nighttime deliveries shall only be made in adequately lighted areas;
- (f) The tank vehicle flasher lights shall be in operation while dispensing;
- (g) Fuel expansion space shall be left in each fuel tank to prevent overflow in the event of temperature increase; and

(h) Written emergency procedures in the event of a spill or fire shall be conspicuously posted at the dispensing area.

(Del) 9-3.5. Delete Section

(Amd) 9-4. Public Service Stations.

(Amd) 9-4.7. The dispensing area shall at all times be in clear view of the attendant. The placing or allowing of any impairment of the view of the attendant shall be prohibited. The use of a closed circuit television camera system is authorized to supplement the attendant's view of the dispensing area. However, the use of such a closed circuit television camera system shall require the approval of the local fire marshal prior to such installation or use. The attendant shall at all times be able to communicate by voice with persons in the dispensing area.

(Add) 9-4.8. Dispensing liquids at a public service station without an attendant present is prohibited.

(Amd) 9-5. Unattended Self-Service at Fleet Vehicle Service Stations.

(Amd) 9-5.1. If an attendant is present at the dispensing facility, he or she shall comply with the provisions of Section 9-4.

(Add) 9-5.1.1. When a person or employee of a company, fleet, commercial, industrial, governmental or manufacturing establishment fuels a motor vehicle used in connection with such businesses at an unattended fleet vehicle service station not owned or operated by said person(s), the owner of the fleet vehicle service station shall be responsible for training the person(s) using the facility. Evidence of such training shall be documented and available for inspection.

The training shall include as a minimum:

- (a) The proper operation of the dispensing equipment;
- (b) The location and operation of emergency remote system shutoff(s); and
- (c) Emergency response procedures to follow in the event of leak, discharge or fire involving flammable or combustible liquids.

(Add) 9-5.1.2. A fleet vehicle service station dispensing area shall be suitably illuminated by a reliable light source when in use.

(Amd) 9-9. Signs. Warning signs with the words "STOP MOTOR," "NO SMOKING" and "NO OPEN FLAMES PERMITTED" in English at least 1 inch in height with a contrasting margin shall be posted at all dispensing locations. The location of warning signs shall be based on local conditions but shall be visible and legible from the point of liquid transfer into the motor vehicle.

(Add) 9-10. Markings Of Dispenser Devices When Gaseous Motor Fuels Are Also Dispensed As Motor Fuels.

(Add) 9-10.1. Warning signs identifying the type of motor fuel shall be posted at all dispensing devices where both liquid and gaseous motor fuels are dispensed into the fuel tanks of motor vehicles. Gaseous motor fuels include compressed natural gas (CNG), liquefied natural gas (LNG) and liquefied petroleum gas (LPG).

Each warning sign shall be at least 3 feet above adjacent ground level and identify the fuel in English in letters at least 3 1/2 inches in height with a contrasting color margin. The name of the fuel shall not be abbreviated. The contrasting margin shall be at least 2 inches from said letters. The warning signs shall be marked as follows:

(a) The common name of a flammable liquid, such as “Gasoline” or “GASOLINE,” shall appear in white letters with a red background.

(b) The common name of a combustible liquid, such as “Diesel Fuel” or “DIESEL FUEL” or “Kerosene” or “KEROSENE,” shall appear in white letters with a green background.

(c) “Compressed Natural Gas” or “COMPRESSED NATURAL GAS,” shall appear in black letters with a yellow background.

(d) “Liquefied Natural Gas” or “LIQUEFIED NATURAL GAS,” shall appear in black letters with a yellow background.

(e) “Liquefied Petroleum Gas” or “LIQUEFIED PETROLEUM GAS” or “Propane” or “PROPANE,” shall be centered in black letters and appear with a yellow background.

(Adopted, effective January 24, 1997)

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Dry Cleaning Plants

Repealed 29-325-1—29-325-2

Dry Cleaning

Standard 29-325-1a

Dry Cleaning Plants

Secs. 29-325-1—29-325-2.

Repealed, June 15, 1994.

Dry Cleaning

Sec. 29-325-1a. Standard

The standard for dry cleaning plants shall be that standard of the National Fire Protection Association referenced in the Connecticut Fire Safety Code as it may, from time to time, be amended.

Copies of the standard are available by writing the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269 or by telephoning the National Fire Protection Association at 1-800-344-3555.

(Effective June 15, 1994)

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Connecticut Gas Equipment and Piping Code

Sec. 29-329-1. Connecticut gas equipment and piping code: Purpose and applicability

(a) Regulations of the Department of Public Safety, Sections 29-329-1 to 29-329-4, inclusive, shall be known as the Connecticut Gas Equipment and Piping Code. Sections 29-329-1 to 29-329-4, inclusive, shall be referred to as “this code” or “the code” and may be cited as such, and are adopted under authority of Connecticut General Statutes Section 29-329.

(b) This code shall apply to the installation of fuel gas piping and dispensing systems, fuel gas utilization equipment, and related accessories. Fuel gases include natural gas, manufactured gas, liquefied petroleum gas in the vapor phase only, liquefied petroleum gas-air mixtures, and mixtures of these gases, plus gas-air mixtures within the flammable range with the fuel gas or the flammable component of a mixture being a commercially distributed product.

(c) This code shall not apply to public service companies, as defined in Section 16-1 of the Connecticut General Statutes.

(Adopted, effective January 24, 1997)

Sec. 29-329-2. Authority having jurisdiction

As used in Sections 29-329-1 to 29-329-4, inclusive:

(a) “The authority having jurisdiction” shall mean the State Fire Marshal. The State Fire Marshal is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within this code.

(b) The local fire marshal shall make the initial determination concerning compliance with this code except as stated otherwise in the wording of a section.

(Adopted, effective January 24, 1997)

Sec. 29-329-3. Adopted standards

(a) The following standards promulgated by the National Fire Protection Association (NFPA) are hereby adopted as part of this code:

NFPA 52-1992, Standard for Compressed Natural Gas (CNG) Vehicular Systems, except as amended, altered or deleted and by the addition of certain provisions as indicated in Section 29-329-4 of this code;

NFPA 54-1996, National Fuel Gas Code;

NFPA 57-1996, Standard for Liquefied Natural Gas Vehicle Fuel Systems.

(b) The standards promulgated by the National Fire Protection Association, (NFPA), are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, Massachusetts 02269; telephone number, 1-800-344-3555. Copies of this code are available from the Department of Public Safety, Division of Fire, Emergency and Building Services, P.O. Box 2794, Middletown, Connecticut 06457-9294; telephone number, (860) 685-8380.

(Adopted, effective January 24, 1997)

Sec. 29-329-4. Connecticut supplement to NFPA 52-1992

The National Fire Protection Association, Inc., NFPA 52-1992, Standard for Compressed Natural Gas (CNG) Vehicular Fuel Systems, is amended to meet the needs of Connecticut as follows:

CHAPTER 1 Introduction

(Add) 1-5. Definitions**(a) Fleet Vehicle Compressed Natural Gas Automotive Service Stations**

That portion of a commercial, industrial, governmental, or manufacturing property where compressed natural gas used as fuel is stored and dispensed into the fuel tanks of motor vehicles that are used in connection with such businesses, by persons within the employ of such businesses.

(b) Public Compressed Natural Gas Automotive Service Stations

Compressed natural gas dispensing facilities open to the general motoring public with at least one attendant on duty while the station is open for business to store and dispense compressed natural gas into the fuel tanks of motor vehicles.

(Amd) 1-6. Qualification of Personnel.

In the interest of safety, all persons employed in the transfer of compressed natural gas (CNG) at automotive CNG dispensing stations responsible for the operation or maintenance of CNG dispensing systems including containers, shall be trained by the employer in the physical hazards of the CNG; system and equipment operation and maintenance requirements; and emergency procedures, which the employer shall document. Retraining shall be required at least once every two years.

CHAPTER 3 Engine Fuel Systems

(Amd) 3-1.1 This chapter applies to the design, installation, inspection and testing of CNG fuel supply systems for vehicular internal combustion engines and is included for informational purposes only.

(Amd) 3-12.1 The complete assembly shall be leak tested using natural gas or inert gas (carbon dioxide or nitrogen or a mixture of these). System testing, checks and resets described in this section shall be documented in writing at the location of the system testing for a minimum of two years and include the name of the person and company performing the test, check or reset and be available for inspection.

(Add) 3-13.4 Prior to performing any repair or maintenance of any kind, including general automotive maintenance of a vehicle using CNG fuel, the manual shutoff valve described in Section 3-6.2 shall be shut off and a sign shall be posted tagging the system as shut down and secure. The tagging shall be in the form of a portable sign stating in 1 inch letters “CNG FUELING SYSTEM SHUT DOWN.” The sign shall be posted in a place visible to anyone attempting to operate or drive the vehicle.

CHAPTER 4 CNG Compression, Storage, and Dispensing Systems

(Add) 4-4.2.9 Outdoor compression equipment and storage containers that are part of a dispensing system shall be protected to minimize the possibility of physical damage and vandalism with concrete filled steel bollards, a minimum of 6 inches diameter Scheduled 80 steel.

(Add) 4-5.4 All American Society of Mechanical Engineers (ASME) and Department of Transportation (DOT) cascade container systems at dispensing stations shall be marked “Compressed Natural Gas” and “Flammable Gas” in letters four inches in height with a contrasting background surrounded by a 1/2 inch rectangular border on both sides of the container.

(Add) 4-5.5 The owner of ASME containers, installing ASME containers on and after the effective date of these regulations, shall maintain written records of

manufacturer's data reports and the information required in Section 2-4.1 at his or her principal place of business during the period of ownership of said container and for a period of one year after transfer, sale or disposal of said container.

(Add) **4-10.3** System testing, checks and retests described in this section shall be documented in writing by the owner of a dispensing system for a minimum of two years and include the name of the person and company performing the test, check or retest, and be available for inspection.

(Amd) **4-11.6** An emergency manual shutdown device shall be provided at the dispensing area and also at a location remote from the dispensing area. The remote emergency manual shutdown device shall be clearly identified and easily accessible switch(es) or circuit breaker(s) and shall be provided at a location not less than 20 feet nor more than 100 feet from dispensing device(s), to shut off the power to all dispensing devices in the event of an emergency.

(Amd) **4-14.9.** Warning signs with the words "NO SMOKING," "NO OPEN FLAMES PERMITTED" AND "FLAMMABLE GAS" in English at least 1 inch in height with a contrasting background shall be posted at all compressor areas.

(Add) **4-18 Compressed Natural Gas Automotive Public and Fleet Service Stations.**

4-18.1 Compressed natural gas (CNG) automotive service stations shall be classified as fleet vehicle or public service stations.

4-18.2 The definition of fleet vehicle or public service station shall include the piping, tubing, fittings, gas compression equipment, storage containers and dispensing devices used to dispense CNG into a fuel container to power a motor vehicle.

4-18.3 Public Compressed Natural Gas (CNG) Automotive Service Stations.

4-18.3.1 Public compressed natural gas (CNG) automotive service stations shall have a trained attendant in accordance with Section 1-6 on duty to dispense CNG into the fuel containers used to power a motor vehicle.

4-18.4 Fleet Vehicle Compressed Natural Gas (CNG) Automotive Service Stations.

4-18.4.1 Fleet vehicle automotive service stations do not require an attendant on duty during dispensing of compressed natural gas (CNG) into the fuel tanks of motor vehicles. If an attendant is on duty, the attendant shall be responsible for the proper observation, supervision and control of the dispensing of compressed natural gas into the fuel tanks of motor vehicles.

4-18.4.2 When an attendant is not on duty, the owner of the fleet vehicle service station shall be responsible for training his or her employees and other persons dispensing motor fuel into their vehicles in accordance with Section 1-6.

4-18.4.3 A fleet vehicle service station dispensing area shall be suitably illuminated by a reliable light source when in use.

4-18.5 CNG Automotive Service Stations at Facilities Dispensing Other Motor Fuels.

4-18.5.1 CNG dispensing locations, fleet vehicle and public, may be located on the same property where other pressurized gases and flammable and combustible liquid motor fuels are dispensed into motor vehicles provided:

(a) the different motor fuel dispensers are located on a separate island, and there is a minimum of 20-foot separations between the CNG dispenser(s) and the other different fuel dispensers; and

(b) all dispensers are marked in accordance with the provisions of Section 4-18.8.

4-18.6 Dispenser Protection from Vehicle Impact.

4-18.6.1 Dispensing devices, public and fleet vehicle, remote from and not a part of a storage container or compression equipment unit, shall be installed in accordance with any dispenser vehicle collision requirements of the manufacturer and mounted on and bolted to a concrete island, a minimum of 8 inches adjacent to ground level and protected with concrete filled steel bollards, a minimum of 6 inches diameter scheduled 80 steel, located to protect the dispenser from damage by vehicle impact.

4-18.6.2 Dispensing devices, attached to or a part of storage container or compression equipment units, shall be protected in accordance with vehicle collision installation requirements of the manufacturer or protected with concrete filled steel bollards, a minimum of 6 inches diameter scheduled 80 steel, located to protect the dispenser from damage by vehicle impact.

4-18.7 Markings at Dispenser Devices Locations.

4-18.7.1 Warning signs with the words “STOP MOTOR,” “NO SMOKING,” “NO OPEN FLAMES PERMITTED” AND “FLAMMABLE GAS” in English at least 1 inch in height with a contrasting background shall be posted at all dispensing locations.

4-18.7.2 The location of warning signs shall be determined by local conditions but shall be visible and legible from the point of transfer into the motor vehicle.

4-18.8 Marking Of Dispensing Devices When Liquids And Other Gaseous Motor Fuels Are Dispensed.

Warning signs identifying the type of motor fuel shall be posted at all dispensing devices where both gaseous and liquid motor fuels are dispensed into the fuel tanks of motor vehicles. Liquid motor fuels include gasoline, diesel fuel and kerosene. Gaseous motor fuels include compressed natural gas (CNG), liquefied natural gas (LNG) and liquefied petroleum gas (LPG).

Each warning sign shall be at least 3 feet above adjacent ground level and identify the fuel in English in letters at least 3 1/2 inches in height with a contrasting margin. The name of the fuel shall not be abbreviated. The contrasting margin shall be at least 2 inches from said letters. The warning signs shall be marked as follows:

(a) “Liquefied Petroleum Gas” or “LIQUEFIED PETROLEUM GAS” or “Propane” or “PROPANE,” shall be centered in black letters with a yellow background.

(b) “Compressed Natural Gas” or “COMPRESSED NATURAL GAS,” shall appear in black letters with a yellow background.

(c) “Liquefied Natural Gas” or “LIQUEFIED NATURAL GAS,” shall appear in black letters with a yellow background.

(d) The common name of a flammable liquid, such as “Gasoline” or “GASOLINE,” shall appear in white letters with a red background.

(e) The common name of a combustible liquid, such as “Diesel Fuel” or “DIESEL FUEL” or “Kerosene” or “KEROSENE,” shall appear in white letters with a green background.

(Adopted, effective January 24, 1997)

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Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code

Sec. 29-331-1. The Connecticut liquefied petroleum gas and liquefied natural gas code: Purpose and applicability

(a) Regulations of the Department of Public Safety, Sections 29-331-1 to 29-331-5, inclusive, shall be known as the Connecticut Liquefied Petroleum Gas and Liquefied Natural Gas Code. Sections 29-331-1 to 29-331-5, inclusive, shall be referred to as “this code” or “the code” and may be cited as such, and are adopted under the authority of Connecticut General Statutes Section 29-331.

(b) This code shall apply to the design, construction, installation and operation of fixed and portable liquefied petroleum gas systems in bulk plants, domestic, commercial, industrial, institutional, and similar properties; transportation of liquefied petroleum gas; engine fuel systems on motor vehicles and other mobile equipment; liquefied petroleum gas automotive service stations; storage of containers awaiting use or resale; and security at liquefied petroleum gas and liquefied natural gas facilities.

(c) This code shall not apply to electric companies and gas companies, as defined in Section 16-1 of the Connecticut General Statutes.

(Adopted, effective January 24, 1997)

Sec. 29-331-2. Authority having jurisdiction

As used in Sections 29-331-1 to 29-331-5, inclusive: (a) “The authority having jurisdiction” shall mean the Commissioner of Public Safety. The Commissioner of Public Safety is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within this code.

(b) The local fire marshal or building official shall make the initial determination concerning compliance with this code except as stated otherwise in the wording of a section.

(Adopted, effective January 24, 1997)

Sec. 29-331-3. Security at liquefied natural gas (LNG) and liquefied petroleum gas (LP-GAS) facilities

(a) Liquefied natural gas (LNG) storage facilities.

Liquefied natural gas (LNG) storage facilities shall have a protective enclosure for aboveground components and a security system with controlled access designed to minimize entry by unauthorized persons. The protective enclosure shall be illuminated and include a non-combustible peripheral fence, building walls or natural barriers and be a minimum of six feet in height, topped by a tamper-resistant system to discourage unlawful entry or trespass. The tamper-resistant system shall consist of at least three strands of barbed wire or other material sufficient to protect the facility. Peripheral fences, building walls, or natural barriers in excess of 10 feet in height shall not require a tamper-resistant material or system. The protective enclosure shall include major aboveground facility components, such as:

- (1) Liquefied natural gas containers;
- (2) outdoor aboveground process equipment areas, including fill station(s); and
- (3) on-shore loading and unloading equipment.

(b) Liquefied Petroleum Gas (LP-GAS) Storage Facilities.

(1) Liquefied Petroleum Gas (LP-GAS) Storage Facilities storing more than 4,000 gallons aggregate water capacity.

Liquefied petroleum gas (LP-GAS) storage facilities storing more than 4,000 gallons aggregate water capacity shall have a protective enclosure for aboveground components and a security system with controlled access designed to minimize entry by unauthorized persons. The protective enclosure shall be illuminated if operated during the hours of darkness and include a non-combustible peripheral fence, building walls or natural barriers and be a minimum of six feet in height and topped by a tamper-resistant system to discourage unlawful entry or trespass. The tamper-resistant system shall consist of at least three strands of barbed wire or other material sufficient to protect the facility. Peripheral fences, building walls, or natural barriers in excess of 10 feet in height shall not require a tamper-resistant material or system. The protective enclosure shall include major aboveground facility components, such as:

- (A) Liquefied petroleum gas containers;
- (B) outdoor process equipment areas; and
- (C) on-shore loading and unloading equipment.

(2) Liquefied petroleum gas (LP-GAS) storage facilities storing 4,000 gallons or less aggregate water capacity and facilities transferring liquid LP-Gas into a building piping system or another container of any size other than the motor vehicle fuel container.

Liquefied petroleum gas (LP-GAS) storage facilities storing 4,000 gallons or less aggregate water capacity and facilities transferring liquid LP-Gas into a building piping system or another container of any size other than the motor vehicle fuel container shall be protected with an enclosure with controlled access, which shall be designed to minimize entry by unauthorized persons and intruders, including a non-combustible peripheral fence, building walls or natural barriers a minimum of six feet in height to promote security of the facility. The protective enclosure shall include major facility components, such as:

- (A) Liquefied petroleum gas aboveground containers; and
- (B) outdoor process equipment areas, including remote transfer points.

(3) Liquefied petroleum gas (LP-GAS) storage facilities storing more than 2,000 gallons and up to and including 4,000 gallons aggregate water capacity aboveground and facilities where liquefied petroleum gas in the vapor phase is used to supply LP-GAS vapor at consumer sites, including but not limited to home(s) or residence(s), commercial or industrial buildings.

Liquefied petroleum gas (LP-GAS) storage facilities storing more than 2,000 gallons and up to and including 4,000 gallons aggregate water capacity aboveground, and facilities where liquefied petroleum gas in the vapor phase is used to supply LP-GAS vapor at consumer sites, including but not limited to home(s) or residence(s), commercial or industrial buildings, shall be protected with an enclosure with controlled access, which shall be designed to minimize entry by unauthorized persons and intruders, and include a non-combustible peripheral fence, building walls, or natural barriers a minimum of six feet in height to promote security of the facility. The protective enclosure shall include major facility components such as:

- (A) Liquefied petroleum gas aboveground containers; and
- (B) outdoor process equipment areas, including remote transfer points.

(4) Liquefied petroleum gas (LP-Gas) storage facilities storing containers 2,000 gallons aggregate water capacity or less.

Liquefied petroleum gas (LP-Gas) storage facilities storing containers 2,000 gallons aggregate water capacity or less used to supply LP-GAS at consumer sites,

including but not limited to a home or residence, commercial or industrial building, do not require protection with an enclosure.

(c) The protective enclosures for liquefied natural gas (LNG) and liquefied petroleum gas (LP-GAS) storage facilities may be met by either one continuous enclosure or several independent enclosures. When the enclosed area exceeds 1,250 square feet, not less than two exit gates or doors located as remote as practical from each other shall be provided for rapid escape of personnel in the event of an emergency.

(d) The presence of such protective enclosures shall not create significant hazards such as pocketing of liquefied natural gas (LNG) or liquefied petroleum gas (LP-GAS), interference with application of cooling water by fire departments, redirection of flames against containers and impeding egress of personnel in an emergency.

(e) Lockable metal cabinets housing the dispensing controls for liquefied petroleum gas (LP-Gas) storage facilities do not require protection with an enclosure.

(Adopted, effective January 24, 1997)

Sec. 29-331-4. Adopted standard

(a) The following standard promulgated by the National Fire Protection Association (NFPA) is adopted as part of this code:

NFPA 58-1995, Standard for the Storage and Handling of Liquefied Petroleum Gases, except as amended, altered, or deleted and by the addition of certain provisions as indicated in Section 29-331-5 of this code.

(b) The standards promulgated by the National Fire Protection Association, (NFPA), are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, Massachusetts 02269; telephone number, 1-800-344-3555. Copies of this code are available from the Department of Public Safety, Division of Fire, Emergency and Building Services, P.O. Box 2794, Middletown, CT 06457-9294; telephone number, (860) 685-8380.

(Adopted, effective January 24, 1997)

Sec. 29-331-5. Connecticut supplement to NFPA 58-1995

The National Fire Protection Association, Inc., NFPA 58-1995, Standard for the Storage and Handling of Liquefied Petroleum Gases, is amended to meet the needs of Connecticut as follows:

CHAPTER 1 GENERAL PROVISIONS

(Amd) **1-5. Qualification of Personnel.** In the interest of safety, all persons employed in the liquid transfer of LP-Gases at a bulk plant, industrial plant, or LP-Gas dispensing station, and employees involved in the commercial transportation or movement of LP-Gas by any mode, responsible for the operation or maintenance of LP-Gas systems including containers, shall be trained by the employer in the physical hazards of the LP-Gases; system and equipment operation and maintenance requirements; and emergency procedures, which the employer shall document. Retraining shall be required at least once every two years.

(Add) **1-6 add the following new definitions as appropriate:**

Cylinder Exchange Points. The portion of a dealer or resale facility open to the public where cylinders, whether filled, partially filled or empty are received and stored for the primary purpose of exchange of cylinders between the dealer, reseller and consumer.

Fleet Vehicle LP-Gas Automotive Service Stations. That portion of a commercial, industrial, governmental, or manufacturing property where liquefied petroleum

gases used as fuels are stored and dispensed into the fuel tanks of motor vehicles that are used in connection with such businesses, by persons within the employ of such businesses.

Public LP-Gas Automotive Service Stations. LP-Gas dispensing facilities open to the general motoring public with at least one attendant on duty while the station is open for business to store and dispense LP-Gas into the fuel tanks of motor vehicles.

CHAPTER 2 LP-GAS EQUIPMENT AND APPLIANCES

(Amd) **2-2.6.6** LP-Gas fuel suppliers shall affix and maintain in a legible condition, their firm names and emergency telephone numbers in a readily visible location on or near LP-Gas supplier-owned Department of Transportation (DOT) and American Society of Mechanical Engineers (ASME) containers installed at consumer premises.

(a) Effective July 1, 1997, the firm name and emergency telephone number on ASME containers shall be in text at least one half inch in height.

(b) Effective July 1, 1997, the emergency telephone numbers shall be staffed 24 hours a day to ensure that the LP-Gas supplier is available in the event of an emergency at the consumer premises.

(Add) **2-2.6.7** The owner of a new ASME container, installing a new ASME container on and after the effective date of these regulations, shall maintain written records of the data report issued by the manufacturer and the information required in Section 2-2.6.5 at its place of business during the period of ownership of said container and for a period of one year after transfer, sale or disposal of said container.

(Add) **2-3.1.5** Container appurtenances, such as pressure relief devices, container shutoff valves, back-flow check valves, internal valves, excess-flow check valves, and liquid level gauges connected to a DOT or ASME container shall be maintained in operating condition at all times to provide the service for which they were designed and installed.

CHAPTER 3 INSTALLATION OF LP-GAS SYSTEMS

(Amd) **3-2.4.1(c)** To minimize the possibility of damage to systems or DOT or ASME container(s) installed in any location exposed to vehicular traffic, such as in or near parking lots, entrances to driveways, streets or construction sites, the systems and containers shall be protected from motor vehicles and other motorized equipment including but not limited to cranes, forklift operations and other common hazards by means of a non-combustible peripheral fence, guard rail or post of metal or concrete, building walls, or natural or artificial barriers enclosing containers and piping.

The presence of such protection from damage shall not create significant hazards such as pocketing of LP-Gas, interference with application of cooling water by fire departments, redirection of flames against containers and impeding egress of personnel in an emergency.

(Amd) **3-9.3.8 Dispenser Protection from Vehicle Impact.**

(a) Dispensing devices, public and fleet vehicle, remote from and not a part of a storage and dispensing unit mounted on a common base installed in accordance with Sections 3-2.4.2(a)3 and 2-2.5.2(a), shall be installed in accordance with any dispenser vehicle collision requirements of the manufacturer and mounted on and bolted to a concrete island, a minimum of 8 inches adjacent to ground level and

protected with concrete filled steel bollards, a minimum of 6 inches diameter schedule 80 steel, installed a minimum of 3 feet below grade and extending a minimum of 4 feet above grade, located to protect the dispenser from damage by vehicle impact.

(b) Dispensing devices, public and fleet vehicle, attached to or a part of a storage and dispensing unit mounted on a common base shall be installed in accordance with Sections 3-2.4.2(a)3 and 2-2.5.2(a) and shall be protected in accordance with vehicle collision installation requirements of the manufacturer or protected with concrete filled steel bollards, a minimum of 6 inches diameter schedule 80 steel, installed a minimum of 3 feet below grade and extending a minimum of 4 feet above grade, located to protect the dispenser from damage by vehicle impact.

(Amd) **3-9.4.3** Dispensing devices used to fill the fuel tanks of motor vehicles with LP-Gas shall be located at least 20 ft (6m) from cylinder exchange points and dispensing devices for Class I flammable liquids, liquefied natural gas (LNG), compressed natural gas (CNG) and dispensing devices used to fill portable containers with home heating fuels.

(Add) 3-9.5 Liquefied Petroleum Gas (LP-GAS) Automotive Public and Fleet Service Stations.

(Add) 3-9.5.1 Public LP-Gas Automotive Service Stations. Public LP-GAS automotive service stations shall have an attendant on duty trained in accordance with Section 1-5 to dispense LP-Gases into the fuel containers used to power a motor vehicle.

(Add) 3-9.5.2 Fleet Vehicle (LP-GAS) Automotive Service Stations.

(a) Fleet vehicle automotive service stations do not require a trained attendant on duty during dispensing of LP-Gas into the fuel tanks of motor vehicles.

(b) When a person or employee of a company, fleet, commercial, industrial, governmental or manufacturing establishment fuels a motor vehicle used for business purposes at an unattended fleet vehicle service station not owned or operated by said person(s), the owner of the fleet vehicle service station shall be responsible for training the person(s) using his or her facility in accordance with Section 1-5. Evidence of such training shall be documented and available for inspection.

(c) If an attendant is on duty, the attendant shall be responsible for the proper observation, supervision and control of the dispensing of LP-Gases into the fuel tanks of motor vehicles.

(1) The dispensing area shall at all times be in clear view of the attendant. The placing or allowing of any impairment of the view of the attendant shall be prohibited.

(2) The use of a closed circuit television camera system is authorized to supplement the attendant's view of the dispensing area. However, the use of such a closed circuit television camera system shall require the approval of the local fire marshal prior to such installation or use.

(3) The attendant shall at all times be able to communicate by voice with persons in the dispensing area.

(d) A fleet vehicle service station dispensing area shall be suitably illuminated by a reliable light source when in use.

(Add) 3-9.5.3 Signs. Warning signs with the words "STOP MOTOR," "NO SMOKING," "NO OPEN FLAMES PERMITTED," AND "FLAMMABLE GAS" in English at least 1 inch in height with a contrasting background shall be posted at all dispensing locations. The location of warning signs shall be based on

local conditions but shall be visible and legible from the point of liquid transfer into the motor vehicle.

(Add) **3-9.5.4 Marking Of Dispensing Devices When Liquids And Other Gaseous Motor Fuels Are Dispensed.** Warning signs identifying the type of motor fuel shall be posted at all dispensing devices where both liquefied petroleum gas and liquid or other gaseous motor fuels are dispensed into the fuel tanks of motor vehicles. Liquid motor fuels include gasoline, diesel fuel and kerosene. Other gaseous motor fuels include compressed natural gas (CNG) and liquefied natural gas (LNG).

Each warning sign shall be at least 3 feet above adjacent ground level and identify the fuel in English in letters at least 3 1/2 inches in height with a contrasting margin. The name of the fuel shall not be abbreviated. The contrasting margin shall be at least 2 inches from said letters. The warning signs shall be marked as follows:

(a) "Liquefied Petroleum Gas" or "LIQUEFIED PETROLEUM GAS" or "Propane" or "PROPANE," shall be centered in black letters with a yellow background.

(b) "Compressed Natural Gas" or "COMPRESSED NATURAL GAS," shall appear in black letters with a yellow background.

(c) "Liquefied Natural Gas" or "LIQUEFIED NATURAL GAS," shall appear in black letters with a yellow background.

(d) The common name of a flammable liquid, such as "Gasoline" or "GASOLINE," shall appear in white letters with a red background.

(e) The common name of a combustible liquid, such as "Diesel Fuel" or "DIESEL FUEL" or "Kerosene" or "KEROSENE," shall appear in white letters with a green background.

(Add) **3-10.4 Written Emergency Plans.** The fire safety analysis referred to in Section 3-10.2.3 and the special fire protection provisions of Section 3-10.3, if required at the facility, shall be incorporated into a facility emergency plan which shall be in writing and amended as required every two years. Written documentation of the current emergency plan shall be maintained at the facility and shall be provided upon written request to the local fire marshal and emergency response agencies.

CHAPTER 4 LP-GAS LIQUID TRANSFER

(Amd) **4-2.2 Cylinders or Tanks to be Filled, Evacuated, Disconnected or Transported and Disconnecting Regulator(s).**

(Amd) **4-2.2.1** Cylinders or tanks shall be filled, evacuated, disconnected or transported and regulator(s) disconnected only by the owner or upon the owner's authorization. At consumer premises where the fixed container is owned by the LP Gas supplier, no person other than the owner and those authorized by the owner shall connect or disconnect any cylinder or tank or regulator(s) containing liquefied petroleum gas, whether in the liquid or vapor state unless the following requirements are met:

(a) Sufficient notice shall be given to the LP-Gas supplier to disconnect and remove its cylinder or tank or regulator(s) prior to the installation of another cylinder or tank by the person, firm, corporation or LP-Gas supplier requesting the disconnection. Sufficient notice shall be in writing received by the LP-Gas supplier or owner a minimum of four business days prior to the scheduled disconnection on the fourth day. Written notice shall include the person, firm, corporation or LP-Gas supplier requesting the disconnection, the address and name of the consumer, and the scheduled date and time of disconnection. Disconnection by the owner or the

owner's authorized agent shall be coordinated so as not to cause an interruption of service greater than the time required to disconnect the notified supplier's equipment and reconnect the replacement equipment of the notifying owner, unless the user authorizes an extended interruption of service to the notified supplier.

(b) After providing sufficient notice, the person, firm, corporation or LP-Gas supplier requesting disconnection or transportation may then disconnect the LP-Gas supplier-owned cylinder(s), tank(s) or regulator(s) downstream of a meter or upstream of a non-LP-Gas supplier or downstream of a regulator(s) owned by the LP-Gas supplier if connected to the gas stream, in a manner that renders the cylinder or tank free of leaks, with valves turned off and all openings plugged, and move on the consumer premises the cylinder(s) or tank(s), whether empty or full, to a safe location meeting the separation distance requirements between tanks and cylinders in Table 3-2.2.2.

(c) No person, firm or corporation, other than the owner and those authorized to do so, shall transport or carry by any means of conveyance whatsoever over public highways and roads, any cylinder or tank containing liquefied petroleum gas, whether in the liquid or vapor state.

(d) The owner of the cylinder or tank shall remove the disconnected cylinder, tank or regulator(s) from the consumer premises within 15 business days after the actual date and time of disconnection.

(e) If the person, firm, corporation or LP-Gas supplier who requested disconnection does not disconnect the cylinder(s), tank(s) or regulator(s) on the day of the scheduled disconnection, the person, firm, corporation or LP-Gas supplier shall be required to reschedule the disconnection giving sufficient notice to the owner of the cylinder(s), tank(s) or regulator(s) as described in Section 4-2.2.1 (a).

(f) In the event of an emergency such as the need for domestic heating during extreme cold weather conditions, leak or fire involving a cylinder, tank or regulator(s), an LP-Gas supplier is authorized to disconnect or evacuate the cylinder or tank at the direction of a public emergency response agency such as the fire department.

(Amd) **4-3.3 Emergency Venting.** When conditions at any location indicate the need for emergency venting of LP-Gas into the environment, the local fire department within that jurisdiction or a regional fire dispatching facility shall be notified prior to any emergency venting activities.

(Amd) CHAPTER 5 STORAGE OF PORTABLE CONTAINERS AWAITING USE, RESALE OR EXCHANGE

(Amd) **5-4.1 Location of Storage Outside of Buildings.**

Storage outside of buildings for containers awaiting use, resale or part of a cylinder exchange point shall be located at least 10 feet from any doorway or opening in a building frequented by the public; 20 feet from any automotive service station fuel dispenser and in accordance with Table 5-4.1 with respect to:

- (a) Nearest important building or group of buildings;
- (b) Line of adjoining property that may be built upon;
- (c) Busy thoroughfares or sidewalks;
- (d) Line of adjoining property occupied by schools, churches, hospitals, athletic fields, or other points of public gathering;
- (e) Dispensing station.

Exception: Cylinders in the filling process shall not be considered to be in storage.

(Amd) **5-4.2.2** To minimize the possibility of damage to systems, where DOT or ASME container(s) are stored in any location exposed to vehicular traffic, such as in or near parking lots, entrances to driveways, streets or construction sites, the systems and containers shall be protected from motor vehicles and other motorized equipment including but not limited to cranes, forklift operations and other common hazards by means of a non-combustible peripheral fence, guardrail or post of metal or concrete, building walls, or natural or artificial barriers enclosing containers and piping. The presence of such protection from damage shall not create significant hazards such as pocketing of LP-Gas, interference with application of cooling water by fire departments, redirection of flames against containers and impeding egress of personnel in an emergency.

CHAPTER 8 ENGINE FUEL SYSTEMS

(Amd) **8-1.1** This chapter applies to fuel systems and the use of LP-Gas as a fuel for internal combustion engines. Included are provisions for containers, container appurtenances, carburetion equipment, piping, hose and fittings and provisions for their installation. This chapter covers engine fuel systems for engines installed on vehicles for any purpose, as well as fuel systems for stationary and portable engines. It also includes provisions for garaging vehicles upon which such systems are installed.

Note: See Section 3-8 for systems on vehicles for purposes other than engine fuel.
(Adopted, effective January 24, 1997)

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Safe Storage and Transportation of Hazardous Chemicals

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Repealed, September 26, 1989.

Secs. 29-337-1a—29-337-3a.

Repealed, December 23, 1997.

Connecticut Hazardous Chemicals Code

Sec. 29-337-1b. The Connecticut hazardous chemicals code: purpose and applicability

Regulations of the Department of Public Safety, Sections 29-337-1b to 29-337-3b, inclusive, shall be known as the Connecticut Hazardous Chemicals Code.

(Adopted, effective December 23, 1997)

Sec. 29-337-2b. Authority having jurisdiction

As used in Sections 29-337-1b to 29-337-3b, inclusive:

(a) For the purposes of regulations adopted by reference under Section 29-337 of the Connecticut General Statutes, “the authority having jurisdiction” means the State Fire Marshal. The State Fire Marshal is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within Sections 29-337-1b to 29-337-3b, inclusive.

(b) The local fire marshal shall make the initial determination concerning compliance with Sections 29-337-1b to 29-337-3b, inclusive, except as stated otherwise in the wording of a section.

(Adopted, effective December 23, 1997)

Sec. 29-337-3b. Adopted standards

(a) The following standards promulgated by the National Fire Protection Association (NFPA) and parts of the Code of Federal Regulations are adopted by reference as regulations of the Department of Public Safety.

NFPA 45-1996,	Standard on Fire Protection for Laboratories Using Chemicals;
NFPA 50-1996,	Standard for Bulk Oxygen Systems at Consumer Sites;
NFPA 50A-1994,	Standard for Gaseous Hydrogen Systems at Consumer Sites;
NFPA 50B-1994,	Standard for Liquefied Hydrogen Systems at Consumer Sites;
NFPA 51-1992,	Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes;
NFPA 51B-1994,	Standard for Fire Prevention in Use of Cutting and Welding Processes;
NFPA 55-1993,	Standard for the Storage, Use, and Handling of Compressed and Liquefied Gases in Portable Cylinders;

NFPA 99-1996, Standard for Health Care Facilities;

NFPA 430-1995, Code for the Storage of Liquid and Solid Oxidizers;

49 C.F.R., Part 107, Subpart B, Parts 171 through 178, inclusive, and Part 180, all as amended.

(b) The standards promulgated by the National Fire Protection Association, (NFPA), are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, Massachusetts 02269; telephone number, 1-800-344-3555. Copies of Sections 29-337-1b to 29-337-3b, inclusive, are available from the Department of Public Safety, Division of Fire, Emergency and Building Services, P.O. Box 2794, Middletown, Connecticut 06457-9294; telephone number, (860) 685-8380. (Adopted, effective December 23, 1997)

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Storage, Transportation and Use of Explosives and Blasting Agents**CHAPTER I. DEFINITIONS****Sec. 29-349-106. Terms and definitions**

When used in these regulations the following terms and definitions shall prevail:

“Approved” shall mean approved by the State Fire Marshal.

“Artificial barricade” shall mean an artificial mound or revetted wall of earth of a minimum thickness of three feet.

“Barricade” shall mean a natural or artificial barricade.

“Barricaded” shall mean that a building containing explosives is effectually screened from a magazine, building, railway or highway, either by a natural barricade or by an artificial barricade of such height that a straight line from the top of any sidewall of the building containing explosives to the eave line of any magazine, or building, or to a point 12 feet above the center of a railway or highway, will pass through such intervening natural or artificial barricade.

“Blasting Agent” shall mean any material or mixture, consisting of a fuel and oxidizer, intended for blasting, not otherwise classified as an explosive and in which none of the ingredients are classified as an explosive, provided that the finished product as mixed and packaged for use or shipment, cannot be detonated by means of a No. 8 test blasting can when unconfined.

NOTE 1. A No. 8 test blasting cap is one containing 2 grams of a mixture of 80% mercury fulminate and 20% potassium chlorate, or a cap of equivalent strength.

NOTE 2: Nitro-Carbo-Nitrate. This term applies to any blasting agent which has been classified as nitro-carbonitrate under the U.S. Department of Transportation Regulations, and which is packaged and shipped in compliance with the regulations of the U.S. Department of Transportation.

“Blasting Cap” shall mean a thin shell closed at one end and containing a detonating charge that is ignited by the flame from safety fuse. It is used for detonating explosives.

“Boosters” shall mean a casing containing several ounces of a high explosive used to increase the intensity of explosion of the detonator or a commercial detonating fuse.

“Carrier” shall mean person, partnerships, associations or corporations who engage in the transportation of articles or materials by rail, highway, water or air.

“Commissioner” shall mean the Commissioner of State Police.

“Commercial Detonating Fuse” shall mean a flexible cord with a core of explosives.

“Detonating Primers” shall mean devices used to detonate bursting charges of projectiles for military purposes.

“Distributor” shall mean any person, firm, partnership, association or corporation acting as a manufacturer’s agent or jobber who deals in explosives and sells to retail dealers or consumers.

“Electric Blasting Cap” shall mean a thin shell closed at both ends containing a detonating charge designed to be ignited by an electric current passed through the two insulated leg wires that project through the seal of the shell.

“Explosives” shall mean any and all explosives as defined in Section 29-343 of the General Statutes. Explosives are classified as follows:

“Class A Explosives” shall mean those possessing detonating or otherwise maximum hazard, such as, but not limited to, dynamite, nitroglycerin, picric acid, lead azide, fulminate of mercury, black powder, blasting caps and detonating primers.

“Class B Explosives” shall mean those possessing flammable hazard, such as propellant explosives (including smokeless powders), photographic flash powders, and some special fireworks.

“Class C Explosives” includes certain types of manufactured articles which contain Class A or Class B explosives, or both, as components but in restricted quantities.

“Explosive Bombs” shall mean a container filled with explosives and provided with a detonating device.

“Explosive-Actuated Power Devices” shall mean any tool or special mechanized device which is actuated by explosives, but not to include propellant-actuated power devices. Examples of explosive-actuated power devices are jet tappers and jet perforators.

“Fire Marshal” shall mean the local fire marshal as defined in Section 29-297 of the General Statutes.

“Forbidden or Not Acceptable Explosives” shall mean explosives which are forbidden or not acceptable for transportation by common carriers by rail freight, rail express, highway or water in accordance with the regulations or with the regulations of the U.S. Department of Transportation. Certain chemicals and certain fuel materials may have explosive characteristics which are not specifically classified by the U.S. Department of Transportation and are not readily classified for coverage in this code. Authoritative information must be obtained for such unclassified materials and action commensurate with their hazards, location, isolation and safeguards, shall be taken.

“Gunpowder” shall mean smokeless powder intended as a propellant explosive for small arms.

“Highway” shall mean any public street, public alley or public road.

“Inspector” shall mean a member of the State Police Department assigned to inspect premises, equipment, and conditions relative to the storage, transportation and use of explosives.

“Inhabited Building” shall mean a building or structure regularly used in whole or part as a place of human habitation. The term “inhabited building” shall also mean any church, school, store, railway passenger station, airport terminal for passengers, and any other building or structure where people are accustomed to congregate or assemble, but excluding any building or structure occupied in connection with the manufacture, transportation, storage and use of explosives.

“License” shall mean the authority granted by the Commissioner of State Police, in writing to manufacture, keep, store, sell, purchase, transport or use explosives. A license for the use of explosives shall not be issued until the applicant exhibits suitable competency and proficiency and shall submit to such examination and test as said Commissioner may prescribe.

“Magazine” shall mean any building or structure, other than an explosives manufacturing building, approved for storage of explosives.

“Manufacturer” shall mean any person or persons, firm, partnership, association or corporation engaged in the manufacture of explosives.

“Motor Vehicle” shall mean any self-propelled vehicle, truck, tractor, semi-trailer, or truck-full trailer used for the transportation of freight over highways.

“Natural Barricade” shall mean natural features of the ground, such as hills, or timber of sufficient density that the surrounding exposures which require protection cannot be seen from the magazine when the trees are bare of leaves.

“Nitro-Carbo-Nitrate” shall mean any blasting agent which has been classified as nitro-carbo-nitrate under the U.S. Department of Transportation regulations, and which is packaged and shipped in compliance with the regulations of the U.S. Department of Transportation.

“No. 8 Test Blasting Cap” shall mean a blasting cap containing two grams of a mixture of 80% mercury fulminate and 20% potassium chlorate, or a cap of equivalent strength.

“Permit” shall mean the authority granted by the State or Local Fire Marshal in writing to have, keep, store, sell, transport, or use explosives. Such permits shall not be issued until the applicant exhibits an annual state license.

“Person” shall mean any individual, firm, co-partnership, corporation, company, association, joint stock association, and including any trustee, receiver, assignee or personal representative thereof.

“Propellant-Actuated Power Devices” shall mean any tool or special mechanized device or gas generator system which is actuated by smokeless propellant or which releases and directs work through a smokeless propellant charge.

“Public Conveyance” shall mean any railroad car, street car, ferry, cab, bus, airplane or other vehicle which is carrying passengers for hire.

“Pyrotechnics” shall mean any and all fireworks as defined in Section 29-356 of the General Statutes.

“Railway” shall mean any steam, electric, diesel-electric or other railroad or railway which carries passengers for hire on the particular line or branch in the vicinity where explosives are stored or where explosive manufacturing buildings are situated.

“Retail Dealer” shall mean any person or persons, firm, partnership, association or corporation who sells explosives to users of same.

“Small Arms Ammunition” shall mean any shotgun, rifle, pistol or revolver cartridge, and cartridges for propellant-actuated power devices and industrial guns. Military-type ammunition containing high explosives, incendiary, tracer, spotting or pyrotechnic projectiles is excluded from this definition.

“Small Arms Ammunition Primers” (Definition of). Small percussion-sensitive explosive charges, encased in a cup, used to ignite propellant powder.

“Smokeless Propellants” shall mean solid propellants, commonly called smokeless powders in the trade, used in small arms ammunition, cannon, rockets, propellant-actuated power devices, etc.

“Special Industrial Explosives Devices” shall mean any explosive power-packs, which shall include but not be limited to explosive rivets, explosive bolts, tools and other charges of explosives used in special industrial operations including jet tapping steel furnaces and jet perforation in oil well operations.

“Special Industrial Explosive Materials” shall mean shaped materials and sheet forms and various other extrusion, pellets and packages of high explosives which include dynamite, trinitrotoluene, pentaerythrite tetra nitrate, cyclotrimethylene-trinitramine and other similar compounds used for high-energy-rate forming expanding and shaping in metal fabrication, and for dismemberment and quick reduction of scrap metal.

“Storage Farm” shall mean a tract of land properly segregated and used for the storage of explosives in excess of 50,000 pounds in one or more magazines.

“Water Gels or Slurry Explosives” comprise a wide variety of materials used for blasting. They all contain substantial proportions of water and high proportions of ammonium nitrate, some of which is in solution in the water. Two broad classes

of water gels are: (a) those which are sensitized by a material classified as an explosive, such as TNT or smokeless powder, and (b) those which contain no ingredient such as aluminum or with other fuels; Water Gels may be premixed at an explosives plant or mixed at the site immediately before delivery into the borehole.
(Effective December 24, 1987)

Sec. 29-349-107. Classification

In these regulations, explosives are classified as follows:
Class A—Dangerous; Class B—Less Dangerous.

Class A explosives shall include:

- Ammunition for cannon with explosive projectiles
- Ammunition for cannon with gas projectiles
- Ammunition for cannon with illuminating projectiles
- Ammunition for cannon with incendiary projectiles
- Ammunition for cannon with smoke projectiles
- Black Powder
- Blasting caps—more than 1,000
- Blasting caps with metal clad mild detonating fuse—more than 1,000
- Boosters (explosives)
- Bursters (explosives)
- Charged oil well jet perforating guns (total explosive contents in exceeding 20 lbs. per motor vehicle)
- Detonating primers
- Electric blasting caps, more than 1,000
- Explosive bomb
- Explosive compositions
- Explosive mine
- Explosive projectile
- Explosive torpedo
- Fuses, detonating, Class A Explosives
- Fuses, detonating, Class A Explosives radioactive
- Hand grenades
- High explosives
- High explosives, liquid
- Igniters, jet thrust (jato) Class A explosives
- Initiating explosive
- Jet thrust unit (jato) Class A explosives
- Low explosives
- Propellant explosives, Class A
- Rifle grenades
- Rocket ammunition with explosive projectiles
- Rocket ammunition with illuminating projectiles
- Rocket ammunition with gas projectiles
- Rocket ammunition with incendiary projectiles
- Rocket ammunition with smoke projectiles
- Supplementary charges (explosive)

Class B explosives shall include:

- Ammunition for cannon with empty projectiles

Ammunition for cannon with inert-loaded projectiles
 Ammunition for cannon with solid projectiles
 Ammunition for cannon without projectiles
 Commercial detonating fuse
 Explosive compositions, other than Class A
 Explosive power device, Class B
 Fireworks, special
 Igniters, jet thrust (jato) Class B explosives
 Jet thrust unit (jato) Class B explosives
 Propellant explosives (liquid) Class B
 Propellant explosives (solid) Class B
 Propellant explosives in water (smokeless powder for cannon or small arms)
 Propellant explosives in water, unstable, condemned or deteriorated (smokeless powder for cannon or small farms)
 Railway torpedos
 Rocket ammunition with empty projectiles
 Rocket ammunition with inert-loaded projectiles
 Rocket ammunition with solid projectiles
 Rocket ammunition without projectiles
 Small arms primers in bulk
 Smokeless powder for cannons
 Smokeless powder for small arms
 Starter cartridges, jet engine, Class B explosives

These regulations are intended to apply to the storage, transportation and use of Class A and Class B explosives as herein defined and are not applied to other explosives except insofar as may be practicable and in the interest of public safety. Industrialists and dealers engaged in the manufacture, processing, storage or transportation of explosives as defined in Section 29-343 of the General Statutes and not covered by these regulations shall secure a special permit from the State Fire Marshal.

(Effective December 24, 1987)

CHAPTER II. LOCAL FIRE MARSHALS

Sec. 29-349-108. Issuance of permits

Local Fire Marshals shall not issue a permit for any magazine not meeting the minimum specifications set forth in these regulations.

(Effective December 24, 1987)

Sec. 29-349-109. Forwarding permits to commissioner

Local Fire Marshals shall retain a copy of each permit issued and shall immediately forward a copy of each permit to the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-110. Refusal of permit

No Local Fire Marshal shall issue a permit to purchase, transport or use explosives until he is shown a license issued by the State Fire Marshal and is satisfied as to the identity of the applicant and as to what use will be made of the explosives.

(Effective December 24, 1987)

Sec. 29-349-111. Notification of permit refusal to State Fire Marshal

Whenever a Local Fire Marshal shall refuse to issue a permit to any person for the purchase, transportation or use of explosives, he shall immediately notify the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-112. Reporting violations

Whenever a Local Fire Marshal finds evidence of a violation of a statute or regulations relative to the storage, transportation, or use of explosives, he shall immediately bring the matter to the attention of the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-113. Permit application

Every person desiring a permit to keep, store, sell, or deal in explosives shall make written application to the Local Fire Marshal. Said application shall be in duplicate on forms provided by the State Fire Marshal. On receipt of such application, the Local Fire Marshal shall proceed to make such inquiry as is necessary to determine whether the applicant is licensed by the State Fire Marshal and the magazine or premises meets all the requirements of these regulations and the applicable statutes. On finding that the magazine or premises complies with all statutory and regulatory requirements, the Local Fire marshal shall issue a permit to keep, store, sell and deal in explosives for a period of not more than one year. On finding that the magazine or premises do not comply with all statutory or regulatory requirements, the Local Fire Marshal shall refuse to issue a permit. Said denial shall be in writing, and shall contain the reason for the refusal. The Local Fire Marshal shall mail to the State Fire Marshal a copy of each application and each permit granted, or if the application was denied a copy of the denial.

(Effective December 24, 1987)

Sec. 29-349-114. Revocation of license or permit for violations

Any license or permit issued in accordance with these regulations may be revoked at any time by State Fire Marshal for good cause.

(Effective December 24, 1987)

CHAPTER III. MANUFACTURING AND SALES OF EXPLOSIVES

Sec. 29-349-115. Manufacture of explosives

The manufacture of any explosive or small arms ammunition shall be prohibited within the State of Connecticut unless such manufacture is authorized by the State Fire Marshal and is conducted in accordance with recognized safe practices satisfactory to the State Fire Marshal. This shall not apply to hand loading of small arms and ammunition prepared for non-commercial use and not for resale, provided that no more than 50 pounds of smokeless powder and no more than 10,000 primers are kept in a single building. All primers and smokeless powder in such hand loading operations must be kept in their factory containers except those which are placed in the loading device.

(Effective December 24, 1987)

Sec. 29-349-116. Manufacture of explosives when prohibited

The manufacture of explosives or pyrotechnics within the State of Connecticut shall be prohibited when such manufacture presents an undue hazard of life and property as determined by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-117. When storage prohibited

No person shall store, handle or transport explosives or blasting agents when such storage, handling or transportation of explosives or blasting agents constitutes an undue hazard to life or property.

(Effective December 24, 1987)

Sec. 29-349-118. Licensed person to receive explosives

No person shall sell or give away any explosive or blasting agent to any person not holding a license to receive same.

(Effective December 24, 1987)

Sec. 29-349-119. Prohibited in public places

No person shall sell, display or expose for sale any explosive or blasting agent on any highway, street, sidewalk, public way or public place.

(Effective December 24, 1987)

Sec. 29-349-120. Exemption for U.S. Pharmacopeia

Nothing in these regulations shall be construed to prohibit the use of explosives in the form prescribed by the official United States Pharmacopeia.

(Effective December 24, 1987)

Sec. 29-349-121. Requirements for laboratories and institutes

Industrial laboratories, laboratories of technical institutes, colleges, universities, and similar institutions may be permitted to keep, store and use explosives or blasting agents when confined to the purpose of scientific or technical instruction or research, provided the storage and use of explosives or blasting agents is conducted or supervised by a person licensed by the State Fire Marshal and not more than 50 pounds of explosives or blasting agents are kept on hand at any time in such laboratories. When additional quantities of explosives or blasting agents are required, application shall be made for special ruling by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-122. Restrictions of explosives quantities

The State Fire Marshal or the Local Fire Marshal may restrict the quantity of explosives or blasting agents at any time, when such storage, handling or transportation constitutes an undue hazard to life or property.

(Effective December 24, 1987)

Sec. 29-349-123. Records

Each person, firm or corporation engaged in the manufacture of explosives, explosive compounds or fuse shall keep a daily record of each person other than employees entering upon their magazine site. Such information shall be filled in by the Company's office, and shall be open to inspection by the State and Local Fire Marshal and law enforcement officers.

(Effective December 24, 1987)

Sec. 29-349-124. Receiver must be licensed

No person, firm or corporation shall sell, deliver, give or otherwise convey any explosives to any person, firm or corporation in this state who is not the holder of a permit or license from the State or Local Fire Marshal, except as noted in Sec. 29-349-115.

(Effective December 24, 1987)

Sec. 29-349-125. Manufacturing of explosives. Protection

The entire occupied portion of the premises of an explosives manufacturing building shall be enclosed by a suitable fence to enable the management to have control of all persons entering such premises. There shall be sufficient number of notices conspicuously posted warning of the business conducted herein.

(Effective December 24, 1987)

CHAPTER IV. STORAGE OF EXPLOSIVES

Sec. 29-349-126. Required magazines for explosives

Class I magazines shall be required where the quantity of explosives stored is more than 50 pounds. Class II magazines may be used where the quantity of explosives stored is 50 pounds or less, except that the authority having jurisdiction may authorize the use of Class II magazines for the temporary storage at blasting sites of larger quantities of explosives.

(Effective December 24, 1987)

Sec. 29-349-127. Requirements for classes of explosives

All Class A, Class B, and Class C special industrial explosives, and any newly developed and unclassified explosives, shall be kept in magazines which meet the requirements of these regulations. This shall not be construed as applying to the following:

(a) Stocks of small arms ammunition, propellant-actuated power cartridges, small arms ammunition primers in quantities of less than 750,000 and smokeless propellant in quantities of less than 750 pounds (see Chapter XII)

(b) Special industrial explosives devices when in quantities of less than 50 pounds net weight of explosives.

(c) Fuse lighters and fuse igniters.

(d) Safety fuse (safety fuse does not include cordeau detonating fuse).

(e) Explosives kept in the manufacturing area for manufacturing purposes.

(Effective December 24, 1987)

Sec. 29-349-128. Prohibited storage

No explosives in any quantity whatsoever shall be stored or kept in any building used in whole or in part as a school, theater or other place of public assembly or gathering.

(Effective December 24, 1987)

Sec. 29-349-129. Blasting caps

Blasting caps, electric blasting caps, detonating blasting primers and primed blasting cartridges shall not be stored in the same magazine with other explosives.

(Effective December 24, 1987)

Sec. 29-349-130. Magazines to be locked

Each magazine shall be kept securely locked at all times, except when explosives are being placed therein or removed therefrom.

(Effective December 24, 1987)

Sec. 29-349-131. Authorized persons for magazines

Only competent authorized persons over 21 years of age shall have access to or control of magazines.

(Effective December 24, 1987)

Sec. 29-349-132. Storage of detonating fuse

Commercial detonating fuse shall be stored in an explosives magazine, but shall not be stored with blasting caps, electric blasting caps, or primed cartridges.

(Effective December 24, 1987)

Sec. 29-349-133. Magazine inventory

A running inventory of the contents of each magazine shall be kept either in the office of the magazine keeper or in the magazine. This inventory shall be available for inspection by an Inspector or by the Local Fire Marshal. In the case of guarded storage farms or manufacturing areas, it will be sufficient if regularly scheduled daily or weekly inventories are made and appropriate records kept as mentioned above.

(Effective December 24, 1987)

Sec. 29-349-134. Opening packages of explosives

Packages of explosives shall not be unpacked or repacked in a magazine nor within 50 feet of a magazine or in close proximity to other explosives. Tools used for opening packages of explosives shall be constructed of non-sparking materials. Opened packages of explosives shall be securely closed before being returned to a magazine.

(Effective December 24, 1987)

Sec. 29-349-135. Smoking prohibited

Smoking, matches, open flames, spark producing devices and firearms are prohibited inside of or within 50 feet of any magazine or in or around any trucks, powder cars, wagons, or other vehicles containing explosives. Combustible materials shall not be stored within 50 feet of any magazine.

(Effective December 24, 1987)

Sec. 29-349-136. Adjacent land to be clear

Ground around permanent magazines shall slope away for drainage. The land surrounding magazines shall be kept clear of brush, dried grass, leaves and other combustible materials for a distance of at least 50 feet.

(Effective December 24, 1987)

Sec. 29-349-137. Explosives containers

Except while being used, no person shall have, keep or store explosives at any place within this State unless such explosives are completely encased or enclosed in metallic, wooden, rubber, fiber or plastic containers. Containers in which explosives are handled outside of manufacturing areas shall be plainly marked with the make and type of explosives contained therein.

(Effective December 24, 1987)

Sec. 29-349-138. Cleaning of magazine floor stains

Magazine floors stained with nitroglycerin shall be scrubbed well with a stiff broom, hard brush or mop, using an ample volume of a solution in the proportion of 1½ quarts of water, 3½ quarts of denatured alcohol, one quart of acetone and one pound of sodium sulfide (60% commercial). The liquid shall be used freely to decompose the nitroglycerin thoroughly. In the event the nitroglycerin is on any material which is impervious to nitroglycerin, this area should be swept thoroughly with dry sawdust and destroyed by burning. Nitroglycerin remover should be stored in closed container and kept in a dark place. Nitroglycerin remover more than 60 days old shall not be used.

(Effective December 24, 1987)

Sec. 29-349-139. Prohibited storage other than explosives

Magazines shall not be used for the storage of flammable materials, oil, paint, carbide, metal, metal tools, machinery or any other article with the exception of portable conveyors made of non-ferrous metals.

(Effective December 24, 1987)

Sec. 29-349-140. Storage of stock

All stocks of explosives shall be stored so as to be easily counted and checked. Packages of explosives shall be piled in a stable manner.

(Effective December 24, 1987)

Sec. 29-349-141. Alterations in magazine

No alteration changing the storage capacity of a magazine shall be made without notifying the State or Local Fire Marshal. When magazines need inside repairs, all explosives shall be removed therefrom. In making outside repairs, if there is a possibility of causing sparks or fire then the explosives shall be removed from the magazine. Explosives removed from a magazine under repair shall be either placed in another magazine or placed a safe distance from the magazine where they shall be properly guarded and protected until repairs have been completed, when they then shall be returned to the magazine.

(Effective December 24, 1987)

Sec. 29-349-142. Magazine housekeeping

Magazine floors shall be regularly swept, kept clean, dry, free of grit, paper, empty used packages and rubbish. Brooms and other cleaning utensils shall not have any spark-producing metal parts. Sweepings from the floor of magazines shall be disposed of by burning in accordance with methods approved by the Local or State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-143. Leaking or deteriorating explosives

When any explosive has deteriorated to an extent that it is in an unstable or dangerous condition, or if nitroglycerin leaks from any explosive or if any explosive is unfit for use for any reason, or when any blasting caps, electric blasting caps, delay electric blasting caps, electric squibs and delay electric squib have so deteriorated from age, improper storage or are unfit for use for any other reason, then the person in possession of such explosive or device shall immediately report the fact to the Local Fire Marshal, and upon his authorization shall proceed to destroy such explosive or device in accordance with safe practices. Only competent persons shall do the work destroying these materials. Any manufacturer, distributor, wholesaler, dealer or user of explosives who files a description of his manner of destruction of these materials with the State Fire Marshal for approval may destroy these materials without authorization of the Local Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-144. Prohibited disposal

Detonators of explosives shall not be disposed of by throwing them into a body of water.

(Effective December 24, 1987)

Sec. 29-349-145. Empty containers

Except for such re-usable containers approved by the U.S. Department of Transportation, containers used in the manufacturing process and small arms cartridges,

no explosive container, box liner, empty bags, sawdust or cartridge shall be used again for any purpose. Empty containers of the aforesaid types shall be carefully collected and destroyed in accordance with the instructions of the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-146. Reduction of capacity of magazine. Relocation

Whenever any buildings are erected or new railroad tracks or highways are constructed near a magazine, the permissive capacity of such magazine shall be reduced to conformity with the American Tables of Distances for the storage of explosives. Whenever any such new construction is begun requiring the reduction of the capacity of a magazine, such fact shall be reported to the State Fire Marshal without delay. The State or Local Fire Marshal may order the magazine abandoned or relocated.

(Effective December 24, 1987)

Sec. 29-349-147. Initiator storage

Initiators (primary explosives) in bulk in an amount not exceeding 1,500 pounds at any one time, except at an explosives factory, shall be stored in a wet condition, and shall contain not less than 25% water.

(Effective December 24, 1987)

Sec. 29-349-148. Guncotton storage

Guncotton, containing not less than 20% water, may be stored in an amount not exceeding 250,000 pounds at any one time in a building, provided such building is used exclusively for that purpose.

(Effective December 24, 1987)

Sec. 29-349-149. Soluble or negative cotton storage

Soluble or negative cotton in a dry form may be kept for sale in a wholesale drug or photographic supply store in an amount not exceeding 6 pounds at any one time in packages containing not more than one ounce each, and may be kept for sale in a retail store in an amount not exceeding 2 pounds at any one time, in packages containing not more than one ounce each.

(Effective December 24, 1987)

Sec. 29-349-150. Removal of explosives

The State or Local Fire Marshal may at his discretion, at any time he deems necessary for public safety, require the removal of any explosives from any location or require that a watchman be placed continuously in charge of same.

(Effective December 24, 1987)

Sec. 29-349-151. Inspection of magazines

All magazines will be periodically inspected by the Local or State Fire Marshal and their agents, and the inspecting official shall notify the owner of a magazine not meeting the minimum safety factors set forth in these regulations to improve or abandon the magazine. Such notification shall be in writing and shall give the owner a reasonable length of time, taking all the surrounding circumstances into consideration, to complete the improvements or abandonment.

(Effective December 24, 1987)

Sec. 29-349-152. Reporting of accident, etc.

All accidents, thefts or fires occurring with the keeping or storing of explosives shall be reported to the Local Fire Marshal immediately by verbal communication

and, within 24 hours, shall be reported in detail, in writing, to the State Fire Marshal on forms provided.

(Effective December 24, 1987)

Sec. 29-349-153. Lights in magazines

Magazines in manufacturing areas may be provided with artificial lighting only if such lighting system complies with the applicable requirements of Articles 500 through 503 of the National Electrical Code consistent with the hazards present in the magazines. No other magazines shall be provided with artificial light, except that if artificial lights are necessary only electric safety flash lights or safety lanterns shall be used.

(Effective December 24, 1987)

Sec. 29-349-154. Artificial heat in magazines

Artificial heat shall not be provided in magazines, except in manufacturing areas where artificial heating may be used only if low pressure steam or hot water is used as the heating medium.

(Effective December 24, 1987)

Sec. 29-349-155. Magazine location

All magazines shall be located away from inhabited buildings, passenger railways, public buildings and other magazines in conformity with the American Table of Distances for the storage of explosives.

(Effective December 24, 1987)

Sec. 29-349-156. Magazine construction

Magazines for the storage of Class A explosives shall be bullet-resistant, weather-resistant, fire-resistant, ventilated sufficiently to protect the explosive in the specific locality. Class 1 and Class 2 magazines shall be protected from lightning in accordance with the N.F.P.A. Lightning Protection Code. Magazines used only for the storage of Class B explosives shall be weather-resistant, fire-resistant and have ventilation. Magazines for the storage of blasting and electric blasting caps shall be weather-resistant, fire-resistant and ventilated. Underground storage in Class 1 and Class 2 magazines is prohibited without approval by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-157. Magazine classification

Magazines as required by these regulations shall be of four classes:

- (a) Class 1 for the permanent storage of explosives.
- (b) Class 2 for the temporary storage of explosives.

This magazine must meet all the requirements of a Class 1 magazine, except the foundation may be omitted and skids or wheels may be used.

(c) Class 3, daily supply magazine—capacity not to exceed 200 pounds, with or without wheels.

(d) Class 4, rental supply magazine—mounted on wheels, capacity not to exceed 50 pounds.

(Effective December 24, 1987)

Sec. 29-349-158. Magazine construction conformity

Magazines shall be constructed in conformity with the provisions of these regulations, or may be of substantially equivalent construction satisfactory to the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-159. Warning signs

Property upon which magazines are located outside of buildings shall be posted with signs, reading "Explosives—Keep Off." Such signs shall be located so as to minimize the possibility of bullet traveling in the direction of the magazines if anyone shoots at the sign.

(Effective December 24, 1987)

Sec. 29-349-160. Class 1 and Class 2 Magazines

Magazines of this category shall be of masonry construction or of wood or metal construction, or a combination of these types, and shall be bullet-resistant. Thickness of masonry units shall not be less than 8 inches. Hollow masonry units used in construction shall have all hollow spaces filled with weak concrete or well tamped sand. Wood constructed walls shall be constructed of 1-inch minimum thickness tongue and grooved hardwood lumber, shall have at least a six inch space between interior and exterior sheathing, and the space between sheathing shall be filled with well tamped sand. Metal wall construction shall be lined with a brick at least four inches in thickness or shall have at least a six inch sand fill between interior and exterior walls, or may be constructed of 3/8 inch thick steel plate walls with 2-5/8 inch thick hardwood lining or equivalent construction approved by the State Fire Marshal. Interior walls shall be constructed of or covered with non-sparking material.

(Effective December 24, 1987)

Sec. 29-349-161. Floor and roof construction

Floors and roofs of masonry magazines may be of wood construction. Wood floors shall be tongue and grooved lumber having a minimum thickness of one inch.

(Effective December 24, 1987)

Sec. 29-349-162. Roof-bullet resistant

If the roof of a Class 1 or Class 2 magazine can be shot into from higher ground, it shall be protected by a sand tray or 4 inches of hardwood located at the line of eaves and covering the entire area except that necessary for ventilation. Sand in the sand tray shall be maintained at a depth of not less than 4 inches, or equivalent construction approved by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-163. Exterior magazine covering

All wood at the exterior of magazines, including eaves, shall be protected by being covered with black or galvanized steel or aluminum metal of thickness not less than No. 26 gauge. All nails exposed to the interior shall be well countersunk.

(Effective December 24, 1987)

Sec. 29-349-164. Foundations

Foundations for magazines shall be of substantial construction and arranged to provide good cross ventilation. The ground around such foundations shall slope away sufficiently for proper drainage.

(Effective December 24, 1987)

Sec. 29-349-165. Ventilation

Magazines shall be ventilated sufficiently to prevent dampness and heating of stored explosives. Ventilating openings shall be screened to prevent the entrance of sparks.

(Effective December 24, 1987)

Sec. 29-349-166. Magazine door construction

Openings to magazines shall be restricted to that necessary for the placement and removal of stocks of explosives. Doors shall be constructed of 3/8 inch plate steel and lined with 2-5/8 inches of hardwood. Hinges and hasps shall be attached to the doors by welding, riveting or bolting (nuts on inside of door). They shall be installed in such a manner that the hinges and hasps cannot be removed when the doors are closed and locked.

(Effective December 24, 1987)

Sec. 29-349-167. Magazine locking and protection

Magazines shall be provided with substantial means for locking and protection. A complete tamper proof locking assembly, approved by the State Fire Marshal, shall be provided and magazine doors shall be kept locked, except during the time of placement and removal of stocks of explosives. When deemed necessary by the State Fire Marshal, due to unusual hazard, such magazines shall be enclosed by at least a six foot manproof fence, and/or shall be further protected by continuous surveillance by an electronic sensing device which shall notify the proper authorities upon unauthorized penetration of the magazine area.

(Effective December 24, 1987)

Sec. 29-349-168. Prohibited stock piling

Provisions shall be made to prevent the piling of stocks of explosives directly against masonry walls, brick lined or sand filled metal walls and single thickness metal walls; such protection, however, shall not interfere with proper ventilation at interior of side and end walls.

(Effective December 24, 1987)

Sec. 29-349-169. Class 3 and Class 4 magazines

Magazines shall be of wood or metal construction or a combination thereof.

(Effective December 24, 1987)

Sec. 29-349-170. Wood and metal magazine construction

Wood magazines of this class shall have sides, bottom, and cover constructed of 2 inch thick hardwood boards well braced at corners and protected by being entirely covered with sheet metal of not less than No. 20 gauge. All nails exposed to interior of the magazine shall be well countersunk. All metal magazines of this class shall have sides, bottom, and cover constructed of sheet metal, and shall be lined with 3/8 inch plywood or the equivalent, including nonferrous metal. Edges of metal covers shall overlap sides at least one inch.

(Effective December 24, 1987)

Sec. 29-349-171. Magazine cover construction

Covers for both wood and metal constructed magazines of these classes shall be provided with substantial strap hinges and shall be provided with substantial means of locking. Covers shall be kept locked except during the placement and removal of explosives.

(Effective December 24, 1987)

Sec. 29-349-172. Warning signs

Magazines of this class shall be painted red and shall bear lettering in white, on all sides and top, at least 3 inches high, "Explosives—Keep Fire Away"—Class

4 magazines when located in warehouses, wholesale or retail establishments, shall be provided with substantial wheels or casters to facilitate removal in case of fire.
(Effective December 24, 1987)

Sec. 29-349-173. Ventilation

Class 3 and Class 4 magazines shall provide adequate means of ventilation.
(Effective December 24, 1987)

Sec. 29-349-174. Explosives storage within building

Class 4 magazines shall be permitted in warehouses, wholesale and retail establishments when located on a floor which has an entrance at outside grade level and the magazine is located not more than 10 feet from such an entrance. Two Class 4 magazines may be located in the same building when one is used for blasting caps in quantities not in excess of 5,000 caps and a distance of 10 feet is maintained between magazines. The location of a Class 4 magazine within a building shall not be changed without the approval of the State or Local Fire Marshal.
(Effective December 24, 1987)

Sec. 29-349-175. Class 3 magazines. Limitation on storage

Not more than 200 pounds of explosives shall be stored or kept in a Class 3 magazine. No explosives shall be kept at night or when blasting is inactive in a Class 3 magazine except under conditions approved by Local Fire Marshal or the State Fire Marshal.
(Effective December 24, 1987)

Sec. 29-349-176. Class 4 magazines. Limitation on storage

Not more than 50 pounds of explosives shall be stored or kept in a Class 4 magazine.
(Effective December 24, 1987)

CHAPTER V. TRANSPORTATION OF EXPLOSIVES

Sec. 29-349-177. Permits by local fire marshal

No Local Fire Marshal shall issue a permit to transport more than 50 pounds of explosives or more than 1,000 blasting caps or electric blasting caps in any suitable vehicle. A Local Fire Marshal may issue a permit to transport a maximum of 200 pounds of explosives in a vehicle carrying a Class 3 magazine or its equivalent. The transportation of blasting caps or electric blasting caps in the same vehicle containing other explosives is prohibited.
(Effective December 24, 1987)

Sec. 29-349-178. Permits by state fire marshal

Only the State Fire Marshal, or his designated representatives shall approve and issue permits for the transportation of explosives in vehicles carrying more than 200 pounds of explosives or more than 1,000 blasting caps or electric blasting caps, and such vehicles shall meet all the requirements of the State Fire Marshal as set forth in these regulations.
(Effective December 24, 1987)

Sec. 29-349-179. Vehicle approval

Vehicles transporting more than 200 pounds of explosives or more than 1,000 blasting caps or electric blasting caps shall be required to have the approval of the

State Fire Marshal. Vehicles of this classification shall be a Truck or Truck-tractor with semi-trailer.

(Effective December 24, 1987)

Sec. 29-349-180. Blasting cap transportation

A maximum of 5,000 blasting caps or electric blasting caps may be transported on the same approved vehicle as follows: The blasting caps or electric blasting caps shall be packed in authorized D.O.T. specifications outside shipping containers; or in prescribed inside D.O.T. packages in an outside box made of one inch lumber with suitable padding material not less than one-half inch thick, or a box made of not less than 12 gauge sheet metal lined with plywood or other suitable material not less than 3/8 inch thick so that no metal is exposed. Hinged cover and fastening devices are required on such boxes. These boxes shall be loaded in approved vehicles so that contents or box will be immediately accessible for removal.

(Effective December 24, 1987)

Sec. 29-349-181. Loading or unloading precautions

In loading or unloading any explosives or blasting caps or electric blasting caps, care shall be taken in the handling of same, and they shall be so placed or stowed as to prevent displacement during transit.

(Effective December 24, 1987)

Sec. 29-349-182. Description of vehicle

The body of each such vehicle shall be fully enclosed. The doors shall be equipped with strong hinges securely bolted on the inside and provided with two suitable padlocks which shall be kept locked at all times when explosives are being carried. The underside of the body, together with the front end and sides of the body, shall be made fire-resistive by being covered with ¼ inch of sheet asbestos which, in turn shall be covered by 20 gauge galvanized iron or equivalent. The entire body, including the doors, should be so constructed that no bolt, screws, nails, or other metals shall be exposed on the inside thereof. Any exposed spark-producing metal on the inside of the body shall be covered with wood or other non-sparking material to prevent contact with packages of explosives.

(Effective December 24, 1987)

Sec. 29-349-183. Warning signs

Each vehicle carrying explosives shall bear signs on the front, rear and each side bearing the word "EXPLOSIVES" in letters not less than 4 inches in height. The lettering shall be in white. Approved vehicles shall be painted in a bright red.

(Effective December 24, 1987)

Sec. 29-349-184. Owner to inspect

It shall be the duty of the person to whom a permit has been issued to transport explosives in vehicles of this classification to inspect daily or cause to be inspected daily those vehicles employed by him to determine that:

- (a) Fire extinguishers are filled and in operating condition.
- (b) Electric wires are insulated and securely fastened to prevent short circuit.
- (c) The motor, chassis and body are reasonably clean and free of excess grease and oil.
- (d) The fuel tank and fuel lines are securely fastened and not leaking.
- (e) Brakes, lights, horn, windshield wiper, and steering mechanism are functioning properly.

(f) Tires are properly inflated and free of defects.

(g) The vehicles shall be in proper condition in every other respect and acceptable for handling explosives.

(h) All warning signs are clean and clearly legible.

(Effective December 24, 1987)

Sec. 29-349-185. Fire extinguishers

Each such vehicle shall be equipped with two approved fire extinguishers carrying a minimum rating of 6BC each and approved by a fire equipment testing laboratory recognized by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-186. Prohibited routes

Explosives shall not be transported through any prohibited vehicular tunnel, or subway, or over any prohibited bridge, roadway, or elevated highway.

(Effective December 24, 1987)

Sec. 29-349-187. Prohibited transportation in a public conveyance

Explosives shall not be carried or transported in or upon a public conveyance or vehicle carrying passengers for hire.

(Effective December 24, 1987)

Sec. 29-349-188. Vehicles to stop at railroad crossings

All commercial vehicles carrying explosives shall come to a full stop before crossing any railroad tracks. Such vehicles shall display a sign with the letters at least two inches high reading "THIS VEHICLE STOPS AT ALL RAILROAD CROSSINGS." Such a sign shall be displayed in such a manner as to be visible to all vehicles approaching from the rear.

(Effective December 24, 1987)

Sec. 29-349-189. Alternate routing

Vehicles transporting explosives shall be routed to avoid congested traffic and densely populated areas whenever practical. Where routes through congested areas have been designated by local authorities such routes shall be followed.

(Effective December 24, 1987)

Sec. 29-349-190. Driver to be licensed by state fire marshal

Vehicles transporting explosives shall only be driven by and be in charge of a driver licensed by the State Fire Marshal to transport explosives. The driver must be physically fit, careful, capable, reliable, able to read and write the English language proficiently, and not addicted to the use or under the influence of intoxicants, narcotics, or drugs, and not less than 21 years of age. He shall be familiar with the traffic regulations, State laws, and the provisions of these regulations, and possess a valid motor vehicle operator license.

(Effective December 24, 1987)

Sec. 29-349-191. Vehicle for repair or storage

Vehicles containing explosives shall not be taken into a garage or repair shop for repair or storage.

(Effective December 24, 1987)

Sec. 29-349-192. Vehicle to be attended

Every motor vehicle transporting any quantity of Class A or Class B explosives shall, at all times, be attended by the driver or other qualified attendant of the motor

carrier. This attendant shall have been made aware of the class of the explosive material in the vehicle and of its inherent dangers, and shall have been instructed in the measures and procedures to be followed in order to protect the public from those dangers. He shall have been made familiar with the vehicle he is assigned to attend, and shall be trained, supplied with the necessary means, and authorized to move the vehicle when required.

(a) For the purpose of this section, a vehicle shall be deemed "Attended" only when the driver or other qualified attendant is physically on or in the vehicle, or has the vehicle within his field of vision and can reach it quickly and without any kind of interference; "attended" also means that the driver or attendant is awake, alert and not engaged in other duties or activities which may divert his attention from the vehicle, except for necessary communication with public officers, or representatives of the carrier, shipper or consignee.

(b) However, an explosive laden vehicle may be left unattended if parked within a securely fenced or walled area with all gates or entrances locked, in a non-hazardous location, where the parking of such vehicle is otherwise permissible.

(Effective December 24, 1987)

Sec. 29-349-193. Certain substances prohibited

No spark-producing metal, or spark-producing metal tools, oils, matches, firearms, electric storage batteries, flammable substances, acids, oxidizing materials, or corrosive compounds shall be carried in the body of any motor truck and/or vehicle transporting explosives, unless the loading of such dangerous articles and the explosives comply with the U.S. Department of Transportation regulations.

(Effective December 24, 1987)

Sec. 29-349-194. Transfer of explosives

Explosives shall not be transferred from one vehicle to another within the State of Connecticut without informing the local fire and police authorities. In the event of a breakdown or collision, the Local Fire and Police Departments and the State Police Department shall be promptly notified to help safeguard such emergencies. Explosives shall be transferred from the disabled vehicle to another only when proper and qualified supervision is provided.

(Effective December 24, 1987)

Sec. 29-349-195. Vehicle parking restrictions

Except under emergency conditions, no vehicle transporting explosives shall be parked before reaching its destination, even though attended, on any street adjacent to or in proximity to any bridge, tunnel, dwelling, building or place where people work, congregate or assemble.

(Effective December 24, 1987)

Sec. 29-349-196. Distance between vehicles

Vehicles loaded with explosives shall keep at least 1,000 feet apart.

(Effective December 24, 1987)

Sec. 29-349-197. Passengers prohibited

Unauthorized persons shall not ride on vehicles transporting explosives.

(Effective December 24, 1987)

Sec. 29-349-198. Smoking and carrying firearms prohibited

No person shall smoke, carry matches or any flame-producing device, or carry any firearms or loaded cartridges (except law enforcement officers in the performance

of their duties) in or near a motor vehicle transporting explosives; or drive, load or unload such vehicle in a careless or reckless manner.

(Effective December 24, 1987)

Sec. 29-349-199. Packing

When explosives are being transported, they shall be packed in strong containers suitable for the purpose. Each box, container, or case shall be plainly marked stating the make and type of explosive contained therein.

(Effective December 24, 1987)

Sec. 29-349-200. Vehicle loading and delivery of explosives

Vehicles shall be loaded in such a manner as to prevent displacement during transit. No bail-hook or metal tools, except portable conveyors made of non-ferrous metals shall be used in loading or unloading explosives. Delivery shall only be made to authorized persons and into authorized magazines or approved temporary storage or handling areas.

(Effective December 24, 1987)

Sec. 29-349-201. Railroad cars

All railroad cars loaded with explosives shall be promptly unloaded and their contents transported to licensed magazines in approved vehicles. Except during the actual unloading, such cars shall be securely locked.

(Effective December 24, 1987)

Sec. 29-349-202. Interstate transportation

There shall be no interstate transportation of explosives into this State except in accordance with the rules and regulations of the U.S. Department of Transportation.

(Effective December 24, 1987)

CHAPTER VI. USE OF EXPLOSIVES AND BLASTING AGENTS

Sec. 29-349-203. Record of shots fired

Each user of explosives for commercial blasting purposes shall keep a log book showing in detail, shots fired by him, giving the quantity of explosives used in each shot, the types, the date, time, name of the land owner, location in which the shot was fired, and the authority issuing the permit. Records shall be in a bound book not loose-leaf, and shall include the number of holes, diameter, depth and spacing, pounds, and type of explosives used, number of delay fuses, results of blast, and precautions taken.

(Effective December 24, 1987)

Sec. 29-349-204. User, without magazine, limited to daily requirements

No user of explosives not having a licensed magazine shall have in his possession explosives beyond his daily requirements.

(Effective December 24, 1987)

Sec. 29-349-205. Experienced persons only

The handling of explosives may be performed by the person holding a permit to use the explosives or by other employees under his direct supervision provided that such employees are at least 21 years of age.

(Effective December 24, 1987)

Sec. 29-349-206. Protection of persons and property

(a) Persons authorized to prepare explosive charges or conduct blasting operations shall use every reasonable precaution, including but not limited to warning signals, flags, barricades or woven wire mats to insure the safety of the general public and workmen.

(b) In every case where a possibility exists either of a serious complaint or actual property damage from blasting vibration, the user shall provide approved seismic instrumentation to determine the actual magnitude of such ground vibration. The State Fire Marshal, may, on his own initiative, order the use of such instrumentation conducted by a professional service, and may determine the maximum vibration level.

(Effective December 24, 1987)

Sec. 29-349-207. On the job explosives. Container

Original containers or Class 3 magazines shall be used for taking detonators and other explosives from storage magazines to the blasting area.

(Effective December 24, 1987)

Sec. 29-349-208. Smoking, drugs, liquor. Prohibited

When explosives are being handled or used, smoking shall not be permitted and no one near the explosives shall possess matches, open light or other fire or flame. No person shall handle explosives when under the influence of liquor or drugs.

(Effective December 24, 1987)

Sec. 29-349-209. Blasting precautions

When blasting is done in congested areas or in close proximity to a structure, railway or highway or any other installation that may be damaged, the blaster shall take special precautions in the loading, delaying, initiation and/or confinement of each blast with mats or other methods so as to control the throw of fragments, and thus prevent bodily injury or property damage.

(Effective December 24, 1987)

Sec. 29-349-210. Blasting on Sunday

Blasting operations may not be conducted on Sundays or between sunset and sunrise, except with special permission of the State or Local Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-211. Removal of explosives from magazine

No more than a reasonably necessary quantity of explosives or detonators shall be removed from the storage magazines.

(Effective December 24, 1987)

Sec. 29-349-212. Blasting precautions for areas of public utilities

Whenever blasting is being conducted in the vicinity of gas, electric, water, fire alarm, telephone, telegraph and steam utilities, the blaster shall notify the appropriate representative of such utilities and the Local Fire Marshal at least 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notice shall be confirmed with written notice. In an emergency, this time limit may be waived by the State or Local Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-213. Warning signs

During the period of any blasting operation which is being initiated electrically, the blaster, contractor, or person in charge shall cause signs to be erected on all

adjacent highways at a point 350 feet from the blasting site to warn motorists not to use two-way radios. These signs shall be placed on the road just prior to the loading of the holes, and shall be removed immediately after the blast is completed.

(Effective December 24, 1987)

Sec. 29-349-214. Blasting caps

Electric blasting caps of different manufacturers shall not be used in the same blast regardless of the manner of connection.

(Effective December 24, 1987)

Sec. 29-349-215. Amount of explosives at blast site

Under no circumstances shall the amount of explosives taken into a blast area exceed the amount estimated by the blaster as necessary for the blast. Such explosives shall be properly stacked and at such distance apart that any premature explosion will not be likely to propagate from one pile to another.

(Effective December 24, 1987)

Sec. 29-349-216. Empty containers. Destruction

Empty boxes and paper and fiber packing materials which have previously contained explosives shall not be used again for any purpose, but shall be destroyed by burning at an approved isolated location out of doors, and no person shall be nearer than 100 feet after the burning has started.

(Effective December 24, 1987)

Sec. 29-349-217. Use of damaged material

Explosives or blasting equipment that are obviously deteriorated or damaged shall not be used.

(Effective December 24, 1987)

Sec. 29-349-218. Abandoned explosives

No explosives shall be abandoned.

(Effective December 24, 1987)

Sec. 29-349-219. Open flames prohibited

No open flame light shall be used in the vicinity of explosives.

(Effective December 24, 1987)

Sec. 29-349-220. Blasting operations

Blasting operations shall be conducted in accordance with nationally recognized good practices.

(Effective December 24, 1987)

Sec. 29-349-221. Water soaked explosives

No person shall attempt to reclaim or use blasting caps, electric blasting caps or other explosives that have been water soaked, even if dried out.

(Effective December 24, 1987)

Sec. 29-349-222. Minimum current

A circuit shall not be fired electrically with less than the minimum current specified by the manufacturer.

(Effective December 24, 1987)

Sec. 29-349-223. Blasting cap containers

Electric blasting caps shall be kept in their original container or in a closed metal box lined with a soft material such as wood or sponge rubber. The coils and folds

in the wires of electric blasting caps should not be straightened out until made ready for use.

(Effective December 24, 1987)

Sec. 29-349-224. Extraneous electricity hazards

Blasting areas shall be surveyed for possible hazards caused by extraneous electricity. Non electric initiation shall be used if a current testing device shows more than 0.06 ampere.

(Effective December 24, 1987)

Sec. 29-349-225. Drill hole size

All drill holes shall be sufficiently large to admit freely the insertion of the cartridges of explosives.

(Effective December 24, 1987)

Sec. 29-349-226. Tamping

Tamping shall be done only with wood rods without exposed metal joints, but non-sparking metal connectors may be used for jointed poles. Plastic tamping poles may be used, provided they have been approved by the State Fire Marshal. Violent tamping shall be avoided.

(Effective December 24, 1987)

Sec. 29-349-227. Loading of holes

No holes shall be loaded except those to be fired in the next round of blasting. After loading, all remaining explosives shall be immediately returned to an authorized magazine.

(Effective December 24, 1987)

Sec. 29-349-228. Examination for unexploded explosives

Drilling shall not be started until all remaining butts of old holes are examined for unexploded charges, and if any are found, they shall be handled by or under the supervision of a competent and experienced person.

(Effective December 24, 1987)

Sec. 29-349-229. Deepening drill holes

No person shall deepen drill holes which have contained explosives.

(Effective December 24, 1987)

Sec. 29-349-230. Loading holes completed—return explosives to magazine

After loading for a blast is completed, all excess blasting caps or electric blasting caps and other explosives shall immediately be returned to their separate storage magazines.

(Effective December 24, 1987)

Sec. 29-349-231. Fuses. Length

Safety fuse shall be cut sufficiently long to extend beyond the collar of the hole, and sufficient in length to assure ample time in retiring from the blast, and shall be not less than three feet in length.

(Effective December 24, 1987)

Sec. 29-349-232. Fuses into cap

Safety fuse shall be cut squarely across and not at a slant. At least one inch of safety fuse shall be cut off, and the freshly cut end immediately inserted into the

blasting cap and crimped with a standard crimper so that the safety fuse is seated against the detonating composition in the cap.

(Effective December 24, 1987)

Sec. 29-349-233. Cartridges

Cartridges for use in blasting shall be primed only as required for immediate use.

(Effective December 24, 1987)

Sec. 29-349-234. Leading wires

Rubber covered or equally insulated wires in good condition shall be used for leading wires. Permanent lines shall be properly supported and insulated and of sufficient size to provide theoretical current requirements for the maximum proposed blast allowing for the ultimate length of the firing line. The firing circuit should be kept completely insulated from the ground or other conductors such as bare wires, tails, pipes or other paths of stray currents.

(Effective December 24, 1987)

Sec. 29-349-235. Equipment of blaster

Each blaster shall be equipped with a galvanometer and blasting machine in good working order; and shall be further equipped with fuse cutters and cap crimpers if cap and fuse is used.

(Effective December 24, 1987)

Sec. 29-349-236. Short circuiting leading wires

Prior to firing shots electrically, the leading wires shall be kept short circuited until ready to actually fire the shot.

(Effective December 24, 1987)

Sec. 29-349-237. Testing of circuits

Blasters, when testing circuits to charge holes, shall use only blasting galvanometers designed for this purpose.

(Effective December 24, 1987)

Sec. 29-349-238. Loading and drilling restricted

No loading operation shall be conducted within 25 feet of a drilling operation.

(Effective December 24, 1987)

Sec. 29-349-239. Springing holes

Drill holes shall not be sprung unless they are more than 100 feet from the nearest hole containing explosives. Holes that have been sprung shall not be charged with explosives until the maximum temperature in any portion of such hole has been reduced to less than 150°F. If an accurate method of measuring the temperature is not available, the hole shall not be reloaded for at least two hours. Sprung holes may be cooled by the addition of sufficient water.

(Effective December 24, 1987)

Sec. 29-349-240. Stemming

Stemming shall consist of clean fine clay, sand or crushed rock screenings. The use of leaves or trash is prohibited. Each blast hole shall be stemmed to the collar or to a point high enough to provide sufficient confinement of the charge and to minimize the chance of injury to personnel from flying material.

(Effective December 24, 1987)

Sec. 29-349-241. Misfire. Suspected

If a misfire is suspected, all wires or commercial detonating fuse in broken rock shall be carefully traced and search made for unexploded cartridges. If recovery is not made, the Local Fire Marshal shall be notified.

(Effective December 24, 1987)

Sec. 29-349-242. Misfire. Investigation

No person shall be permitted to examine a shot after a misfire until specifically authorized by the person in charge of the blasting operations. If practicable, the misfired charge shall be re-primed and fired. Misfires shall be handled only by or under the direction of a competent and experienced person.

(Effective December 24, 1987)

Sec. 29-349-243. Misfire. Precautions

If a misfire occurs or is suspected, no person shall return to the vicinity of the misfire until at least one hour after the misfire if the shot was cap and fuse firing, or minimum of 30 minutes for electric firing. If there is reason to believe that the explosive is burning in the hole, no person shall return to the vicinity of the misfire for at least 12 hours, and the site shall be guarded in the interim.

(Effective December 24, 1987)

Sec. 29-349-244. Airline hose prohibited within twenty-five feet

In no case shall an airline hose be permitted to be located within 25 feet of a loading operation or a space where explosives are stored or handled.

(Effective December 24, 1987)

Sec. 29-349-245. Loaded holes to be guarded. Warning whistle

When a charge of explosives has been loaded there shall be a constant guard over same until the blast is fired. Before a blast is fired, a loud warning signal shall be given by the person in charge, who has made certain that all surplus explosives are in a safe place, all persons and vehicles are at a safe distance or under sufficient cover, and that an adequate warning has been given. Said guard shall remain until the person in charge is reasonably certain there have been no misfires.

(Effective December 24, 1987)

Sec. 29-349-246. Blasting caps in congested areas

Only electric blasting caps or commercial detonating fuse shall be used for blasting operations in congested districts, or on highways, or adjacent to highways open to traffic, except where sources of extraneous electricity make such use dangerous.

(Effective December 24, 1987)

Sec. 29-349-247. Cap crimpers

When fuse is used, the blasting cap shall be securely attached to the fuse with a standard ring type cap crimper. All primers shall be assembled at least 50 feet from any magazine.

(Effective December 24, 1987)

Sec. 29-349-248. Accidents, thefts, fires to be reported

All accidents, thefts or fires occurring with the use of explosives shall be reported to the Local Fire Marshal immediately by verbal communication and, within 24 hours, shall report in detail the chronological events pertaining to same, in writing, to the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-249. Inserting. Blasting caps

No blasting cap shall be inserted in the explosives without first making a hole in the cartridge for the cap with a wooden or non-ferrous metal punch of proper size or standard cap crimper.

(Effective December 24, 1987)

Sec. 29-349-250. Misfired explosives, not to be dug out

Explosives shall not be extracted from a hole that has once been charged or has misfired unless it is impossible to safely detonate the unexploded charge by insertion of a fresh additional primer.

(Effective December 24, 1987)

Sec. 29-349-251. Lead wire connector to fire shot

Only the man making leading wire connections in electric firing shall fire the shot. All connections should be made from bore hole back to the source of the firing current, and the leading wires shall remain shorted and not be connected to the blasting machine or other source of current until the charge is to be fired.

(Effective December 24, 1987)

Sec. 29-349-252. Extraneous electricity. Precautions

Due precautions shall be taken to prevent accidental discharge of electric blasting caps from current induced by radar, radio transmitters, adjacent power lines, lightning, dust storms and other sources of extraneous electricity. The precautions shall include:

(a) The suspension of all blasting operations regardless of the method of initiation and removal of persons from the blasting area during the approach and progress of an electric storm.

(b) Special precautions may be required by the State Fire Marshal when blasting operations are conducted in a radar environment.

(c) Electric blasting shall not be carried out at lesser distances from radio transmitter antennas than is set forth in the following table:

Distances for AM Transmitters (Fixed or Mobile)

Transmitter Power in Watts	Minimum Distance in Feet
5 — 25	100
25 — 50	150
50 — 100	220
100 — 250	350
250 — 500	450
500 — 1,000	650
1,000 — 2,500	1,000
2,500 — 5,000	1,500
5,000 — 10,000	2,200
10,000 — 25,000	3,500
25,000 — 50,000	5,000
50,000 — 100,000	7,000

Distances for FM Mobile Transmitters

Transmitter Power in Watts	Minimum Distance in Feet
1 — 10	5
10 — 30	10
30 — 60	15
60 — 250	30
250 — 600	45

Where the power of an FM or TV transmitter exceeds 100,000 watts, electric blasting shall be conducted at a distance of at least 600 feet or more. No electric blasting will be carried out at lesser distances than in the aforesaid tables without the specific permission of the State Fire Marshal.

(Effective December 24, 1987)

**CHAPTER VII. EXPLOSIVES AT PIERS, RAILWAY STATIONS
AND CARS OR VESSELS NOT OTHERWISE
SPECIFIED IN THESE REGULATIONS**

Sec. 29-349-253. Railroad cars

Except in an emergency, and with the permission of the State Fire Marshal, no person shall have or keep explosives in a railway car unless said car and contents and methods of loading are in accordance with the U.S. Department of Transportation regulations for the transportation of explosives.

(Effective December 24, 1987)

Sec. 29-349-254. Packing to conform to D.O.T. regulations

No person shall deliver any explosives to any carrier unless such explosive conforms in all respects, including marking and packaging to the U.S. Department of Transportation regulations for the transportation of explosives.

(Effective December 24, 1987)

Sec. 29-349-255. Warning signs

Every railway car containing explosives which has reached its destination, or is stopped in transit so as no longer to be in interstate commerce shall have attached to both sides and ends of the car, cards with the words ‘‘EXPLOSIVES—HANDLE CAREFULLY—KEEP FIRE AWAY’’ in red letters at least one and one-half inches high in a white background.

(Effective December 24, 1987)

Sec. 29-349-256. Explosives to be isolated at terminals

Any explosives at a railway facility, truck terminal, pier, wharf, harbor facility or airport terminal whether for delivery to a consignee or forwarded to some other destination shall be kept in a safe place, isolated as far as is practicable and in such manner that they can be easily and quickly removed.

(Effective December 24, 1987)

Sec. 29-349-257. Delivery between sunset and sunrise

Explosives shall not be delivered to or received from any railway station, truck terminal, pier, wharf, harbor facility or airport terminal between the hours of sunset

and sunrise without notifying the Local Fire Marshal, who shall take appropriate steps to assure the safety of the public.

(Effective December 24, 1987)

Sec. 29-349-258. Unclaimed or undelivered explosives

Whenever explosives brought into this State by any means of transportation for delivery to an intermediate receiver, consignee's agent or consignee, or to be forwarded to some other destination, shall remain unclaimed or undelivered for 48 hours (Sundays and holidays excluded) such shipper shall notify the Local Fire Marshal. The Local Fire Marshal shall then order the transportation company to move said explosives to an approved storage magazine or place of safety and the cost of such movement shall be borne by the shipper of the explosives.

(Effective December 24, 1987)

Sec. 29-349-259. Consignee to remove explosives

Any person having been notified, as consignee, of a shipment of explosives being in the hands of any carrier shall remove the said explosives within 48 hours, Sundays and holidays excluded, after receiving such notification, to a place meeting the requirements of these regulations.

(Effective December 24, 1987)

Sec. 29-349-260. Authority to designate location and quantity of explosives

The Local Fire Marshal has the authority to and may designate the location for, and limit the quantity of, explosives which may be loaded, unloaded, reloaded, or temporarily retained at any facility within his jurisdiction.

(Effective December 24, 1987)

Sec. 29-349-261. Permits for waterfront facilities

Before the owner or operator of a waterfront facility shall handle, load, discharge, transport on or over such facility any Class A explosive in any quantity, he shall hold a permit issued by the Local Fire Marshal. The owner or operator of a waterfront facility shall notify the Fire Marshal when the quantity of Class B explosives present on the facility is in excess of one ton. No permit shall be issued by the Local Fire Marshal for the loading or discharging to or from any vessel any explosives unless such explosives are marked, labeled and packaged in accordance with D.O.T. regulations and meet the regulations of the United States Coast Guard. Such Fire Marshal shall specify the limits as to maximum quantity, isolation and remoteness. Nothing herein contained shall be deemed to limit or restrict the shipment, transportation or handling of military explosives by or for the Armed Forces of the United States.

(Effective December 24, 1987)

CHAPTER VIII. BLASTING AGENTS

Sec. 29-349-262. Application of regulations

Unless otherwise set forth in these regulations, blasting agents shall be transported, stored and used in the same manner as explosives.

(Effective December 24, 1987)

Sec. 29-349-263. Facilities used for mixing blasting agents

(a) Buildings or other facilities used for mixing blasting agents shall be located, with respect to inhabited buildings, passenger railroads and public highways, in accordance with the American Table of Distances.

(b) Any ammonium nitrate stored at a closer distance to the blasting agent storage area than as provided in (c) below shall be added to the quantity of blasting agents to calculate the total quantity involved for application of the aforementioned Table.

(c) Minimum intra-plant separation distances between mixing units and the ammonium nitrate storage areas and blasting agent storage areas shall be in conformity with the Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents.

(Effective December 24, 1987)

Sec. 29-349-264. Buildings used for mixing of blasting agents

(a) Buildings used for the mixing of blasting agents shall conform to the requirements of this section, unless otherwise specifically approved by the State Fire Marshal.

(b) Buildings shall be of noncombustible construction or sheet metal on wood studs.

(c) The layout of the mixing building shall be such as to provide physical separation between the finished product storage, and the mixing and packaging operation.

(d) Floors in the storage areas and in the processing plant shall be of concrete, metal or other approved material. Isolated fuel storage shall be provided to avoid contact between molten ammonium nitrate and fuel in case of fire.

(e) The building shall be well ventilated.

(f) Heat shall be provided exclusively from a source outside the building. However, space heaters that do not depend on combustion processes within the heating unit may be satisfactory if they are located overhead to provide a minimum clearance of 30 inches from raw materials and finished products. The space heaters must also meet the requirements of the most recent edition of the National Electrical Code for the specific type of hazard encountered.

(Effective December 24, 1987)

Sec. 29-349-265. Mixer design

The design of the mixer shall be such as to minimize the possibility of frictional heating, compaction, and especially confinement. Open mixers are preferable to enclosed mixers. Bearing and gears should be protected against the accumulation of ammonium nitrate dust. All surfaces should be accessible for cleaning. Mixing and packaging equipment shall be constructed of materials compatible with fuel-ammonium nitrate composition.

(Effective December 24, 1987)

Sec. 29-349-266. Determination of blasting agent compositions

The provisions of this section shall be considered when determining blasting agent compositions. The sensitivity of the blasting agent shall be determined by means of a No. 8 test blasting cap at regular intervals and after every change in formulation or as may be required by the State Fire Marshal.

(a) Oxidizers of small particle size such as crushed prills or fines may be more sensitive and hazardous than the ordinary prills and shall be handled with greater care.

(b) No liquid fuel with flash point lower than that of No. 2 diesel fuel oil (125°F. minimum or legal) shall be used.

(c) Crude oil and crankcase oil shall not be used because they may contain light ends that offer increased vapor-explosion hazards or gritty particles that tend to sensitize the resulting blasting agent.

(d) If solid fuels are used, they shall be chosen so as to minimize dust-explosion hazard.

(e) Metal dust (aluminum powder, etc.) peroxides, chlorates, or perchlorates shall not be used unless such operations are conducted in a manner approved by the State Fire Marshal.

(f) Unusual compositions shall not be attempted except under the supervision of competent personnel equipped to determine the over-all hazard of the resulting compositions.

(g) Suitable means shall be provided to prevent the flow of fuel oil to the mixer in case of fire. In gravity flow systems an automatic spring-loaded shutoff valve with fusible link shall be installed.

(Effective December 24, 1987)

Sec. 29-349-267. Power sources for mixing plants

(a) All electrical switches, controls, motors, and lights, if located in the mixing rooms shall conform to the requirements of Class II, Division 2 of the National Electrical Code; otherwise they should be located outside the mixing room. The frame of the mixer and all other equipment that may be used shall be electrically bonded and provided with a continuous path to the ground.

(b) All internal-combustion engines used for electric power generation shall be located outside the mixing plant building, or shall be properly ventilated and isolated by a fire wall. The exhaust systems on all such engines shall be located so any spark emission can not be a hazard to any materials in or adjacent to the plant.

(Effective December 24, 1987)

Sec. 29-349-268. Washdown facilities

An automatic water-deluge system with adequate capacity shall be provided to protect mixers and the finished-explosives storage area in permanently located plants. Floors shall be constructed so as to eliminate open floor drains and piping into which molten materials could flow and be confined in case of fire. The floors and equipment of the mixing and packaging room shall be washed down frequently to prevent accumulation of oxidizers or fuels and other sensitizers. The entire mixing and packaging plant shall be washed down periodically to prevent excessive accumulation of dust.

(Effective December 24, 1987)

Sec. 29-349-269. Smoking prohibited

Smoking or open flames shall not be permitted in or within 50 feet of any building or facility used for the mixing of blasting agents.

(Effective December 24, 1987)

Sec. 29-349-270. Disposal of nitrate bags

Empty ammonium nitrate bags shall be disposed of daily by burning in small quantities in a safe location. No person shall remain within 100 feet once the burning has started.

(Effective December 24, 1987)

Sec. 29-349-271. Limited production

Not more than one day's production of blasting agents or the limit determined by the American Table of Distances, whichever is less, shall be permitted in or near the mixing and packaging plant or area. Larger quantities shall be stored in separate warehouses or magazines.

(Effective December 24, 1987)

Sec. 29-349-272. Storage of blasting agents and supplies

Blasting agents, ammonium nitrate and all oxidizers used for mixing of blasting agents shall be stored in the manner set forth in this section.

(a) Blasting agents or ammonium nitrate, when stored in conjunction with explosives shall be stored in conformity with the Table of Distances Chart, Chapter IX of this Code. The mass of blasting agents and one-half the mass of ammonium nitrate shall be included when computing the total quantity of explosives for determining distance requirements.

(b) Blasting agents when stored entirely separate may be stored in the manner set forth for Class A explosives or in one-story warehouses (without basements) which shall be:

1. Noncombustible or fire-resistive;
2. Constructed so as to eliminate open floor drains and piping into which molten materials could flow and be confined in case of fire;
3. Weather resistant;
4. Well ventilated; and
5. Equipped with a strong door kept securely locked, in the same manner as explosives magazines, except when open for business under supervision.

(c) Semitrailer or full trailer vans used for highway or on-site transportation of the blasting agents are satisfactory for temporary storing of these materials, provided they are located according to the American Table of Distances with respect to inhabited buildings, passenger railroads and public highways and according to the Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents with respect to one another. Trailers shall be provided with substantial means for locking and the trailer doors shall be kept locked, except during the time of placement and removal of stocks and blasting agents.

(Effective December 24, 1987)

Sec. 29-349-273. Blasting agents stored in warehouses

Warehouses used for the storage of blasting agents separate from explosives shall be located as set forth in this section:

(a) Warehouses used for the storage of blasting agents shall be located in accordance with the provisions of the American Table of Distances with respect to inhabited buildings, passenger railroads, public highways and according to the Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents with respect to one another.

(b) If both blasting agents and ammonium nitrate are handled or stored within the distance limitations prescribed in the Table of Distance chart of this Code, one-half the mass of ammonium nitrate shall be added to the mass of the blasting agent when computing the total quantity of explosives for determining the proper distance for compliance with the American Table of Distances.

(Effective December 24, 1987)

Sec. 29-349-274. Smoking, firearms, etc. prohibited locations

Smoking, matches, open flames, spark producing devices and firearms shall be prohibited inside of or within 50 feet of any mixing and packaging plant or area or any warehouse used for the storage of blasting agents. Combustible materials, shall not be stored within 50 feet of mixing plants of warehouses used for the storage of blasting agents and the land surrounding such places shall be maintained clear of dried grass, leaves and brush for this distance.

(Effective December 24, 1987)

Sec. 29-349-275. Warehouse housekeeping

The interior of warehouses used for the storage of blasting agents shall be kept clean and free from debris and empty containers. Spilled materials shall be cleaned up promptly and safely removed. Combustible materials, flammable liquids, corrosive acids shall not be stored in any warehouse used for blasting agents unless separated therefrom by a fire-resistive separation of not less than one hour resistance. The provisions of this section shall not prohibit the storage of blasting agents with non-explosive blasting supplies.

(Effective December 24, 1987)

Sec. 29-349-276. Fuels to be separated

Piles of ammonium nitrate and warehouses containing ammonium nitrate shall be adequately separated from readily combustible fuels.

(Effective December 24, 1987)

Sec. 29-349-277. Loosening materials by blasting prohibited

Caked ammonium nitrates either in bags or in bulk, shall not be loosened by blasting.

(Effective December 24, 1987)

Sec. 29-349-278. Warehouses to be supervised by competent person

Every warehouse used for the storage of blasting agents shall be under the supervision of a competent person who shall be not less than 21 years of age.

(Effective December 24, 1987)

Sec. 29-349-279. Authority to designate location and quantity of blasting agents

The State Fire Marshal has the authority to and may designate the location for, and limit the quantity of blasting agents which may be loaded, unloaded, reloaded or temporarily retained at any facility within the state.

(Effective December 24, 1987)

Sec. 29-349-280. Transportation of blasting agents

When blasting agents are transported all of the requirements of these regulations concerning the transportation of explosives shall be complied with, and vehicles involved shall be placarded and marked in the same manner as explosives vehicles.

(Effective December 24, 1987)

Sec. 29-349-281. Operators of vehicles transporting blasting agents

Vehicles transporting blasting agents shall only be driven by and be in charge of a licensed driver who is physically fit, careful, capable, reliable, able to read and write the English language proficiently, and not addicted to the use, or under the influence of intoxicants, narcotics, or drugs, and not less than 21 years of age. He shall be familiar with the traffic regulations, state laws, and the provisions of these regulations.

(Effective December 24, 1987)

Sec. 29-349-282. Certain substances prohibited

No sparking metal, sparking metal tools, oils, matches, firearms, spark producing devices, acids or other corrosive liquids shall be carried in the bed or body of any vehicles containing blasting agents.

(Effective December 24, 1987)

Sec. 29-349-283. Use of intoxicating liquor prohibited

No person shall be permitted to ride upon, drive, load or unload a vehicle containing blasting agents while smoking or under the influence of intoxicants or drugs.

(Effective December 24, 1987)

Sec. 29-349-284. Transportation on public vehicles prohibited

It is prohibited for any person to transport or carry any blasting agents upon any public vehicle carrying passengers for hire.

(Effective December 24, 1987)

Sec. 29-349-285. Condition of vehicle

Vehicles transporting blasting agents shall be in safe operating condition at all times.

(Effective December 24, 1987)

Sec. 29-349-286. Packaging and marking of containers

When offering blasting agents for transportation on public highways, the packaging, marking and labeling of containers of blasting agents shall comply with the requirements of the U.S. Department of Transportation.

(a) Vehicles used for transporting blasting agents on public highways shall be placarded in accordance with the U.S. Department of Transportation regulations.

(Effective December 24, 1987)

Sec. 29-349-287. Bulk delivery and mixing vehicle of blasting agents

Regulations of the section shall apply to off-highway private operation as well as to all public highway transportation.

(a) A bulk vehicle body shall be constructed of noncombustible materials.

(b) Vehicles used to transport bulk pre-mixed blasting agents on public highway shall have closed bodies.

(c) All moving parts of the mixing system shall be designed as to prevent a heat build up. Shafts or axles which contact the product shall have outboard bearing with 1-inch minimum clearance between the bearing and outside of the product container. Particular attention shall be given to the clearance on all moving parts.

(d) A bulk delivery vehicle shall be strong enough to carry the load without difficulty and be in good mechanical condition.

(e) The operator shall be trained in the safe operation of the vehicle together with its mixing, conveying and related equipment, and also be familiar with commodities being delivered and procedure used in emergency situations.

(f) Caution shall be exercised in the movement of the vehicle in the blasting area to avoid driving the vehicle over or dragging hoses over firing lines, cap wires, or explosive materials. The employer shall provide a second person to guide his movements.

(g) No intransit mixing of materials shall be performed.

(h) No repairs to bulk delivery or mixing vehicles shall be made unless it has been completely washed down and all oxidizer material removed.

(i) When electric power is supplied by a self-contained motor generator located on the vehicle the generator shall be at a point separate from where the blasting agent is discharged.

(j) The location chosen for the blasting agent transfer from a support vehicle into the borehole loading vehicle shall be away from the blast hole site when the boreholes are loaded or in the process of being loaded.

(k) A positive action parking brake will set the wheel brakes on at least one axle shall be provided on vehicles when equipped with air brakes and shall be used during bulk delivery operations. Wheel chocks shall supplement parking brakes.

(Effective December 24, 1987)

Sec. 29-349-288. Use of blasting agents

Persons using blasting agents shall comply with all the applicable provisions of these regulations concerning the use of explosives and as set forth in this section.

(a) Pneumatic loading from bulk delivery vehicles into boreholes primed with electric blasting caps or other static-sensitive systems shall meet the following requirements:

(1) A positive grounding device shall be used to prevent accumulation of static electricity.

(2) A discharge hose shall be used that has a resistance range that will prevent conducting stray currents, but that is conductive enough to bleed off static buildup.

(Effective December 24, 1987)

CHAPTER IX. STORAGE OF AMMONIUM NITRATE

Sec. 29-349-289. General application

These regulations apply to the storage of ammonium nitrate in the form of crystals, flakes, grains or prills including fertilizer grade, dynamite grade, nitrous oxide grade, technical grade and other mixtures containing 60 per cent or more ammonium nitrate by weight, but does not apply to blasting agents.

(Effective December 24, 1987)

Sec. 29-349-290. Prohibited storage

The storage of ammonium nitrate that does not meet the specifications of fertilizer grade ammonium nitrate as set forth by the State Fire Marshal shall not be permitted by these regulations except on the specific approval of said marshal.

(Effective December 24, 1987)

Sec. 29-349-291. Regulations application

These regulations shall apply to all persons, firms, corporations, co-partnerships and associations storing, having or keeping ammonium nitrate, and to the owner or lessee of any building, premises or structure in which ammonium nitrate is stored in quantities of 1,000 pounds or more.

(Effective December 24, 1987)

Sec. 29-349-292. Maximum storage

Not more than 60 tons of ammonium nitrate shall be stored unless the location and storage facility have been approved.

(Effective December 24, 1987)

Sec. 29-349-293. Approval of storage locations

Storage locations shall be subject to the approval by the State Fire Marshal with respect to nearness of residential occupancies, places of public assembly, schools, hospitals, railroads and public highways. Limitations on storable quantities shall be considered with regard to proximity of these exposures and congested commercial or industrial districts.

(Effective December 24, 1987)

Sec. 29-349-294. Approval of large quantity storage

Approval of large quantity storage shall be subject to due consideration of possible toxic vapors from burning or decomposing ammonium nitrate.

(Effective December 24, 1987)

Sec. 29-349-295. Storage building requirements

Storage buildings shall not be over one story in height or have basements, unless approved for such use, and shall be equipped with lightning rod protection.

(Effective December 24, 1987)

Sec. 29-349-296. Ventilation

Storage buildings shall have adequate ventilation or be of a construction that will be self-ventilating in the event of fire.

(Effective December 24, 1987)

Sec. 29-349-297. Walls exposed to combustible buildings. Protection

The wall on the exposed side of a storage building within 50 feet of a combustible building, forest, piles of combustible material and similar exposure hazards shall be of fire resistive or noncombustible construction. In lieu of the fire-resistive or noncombustible wall, other better means of exposure protection such as outside automatic sprinklers or free standing walls may be used. The roof coverings shall be Class C or better, as defined in Roof Coverings, NFPA No. 203.

(Effective December 24, 1987)

Sec. 29-349-298. Floor construction

All flooring in storage and handling areas shall be of noncombustible material or protected against impregnation by ammonium nitrate and shall be without open drains, traps, tunnels, pits, or pockets into which any molten ammonium nitrate could flow and be confined in the event of fire.

(Effective December 24, 1987)

Sec. 29-349-299. Existing storage buildings

The continued use of an existing storage building or structure not in strict conformity with these regulations may be approved in cases where such continued use will not constitute a hazard to life or adjoining property.

(Effective December 24, 1987)

Sec. 29-349-300. Buildings to be dry

Buildings and structures shall be dry free from water seepage through the roof, walls and floors.

(Effective December 24, 1987)

Sec. 29-349-301. Bags and container requirements

Bags and containers used for ammonium nitrate must comply with specifications and standards required for use in interstate commerce.

(Effective December 24, 1987)

Sec. 29-349-302. Containers requirement exemption

Containers used on the premise in the actual manufacturing or processing need not comply with provisions of Section 29-349-301.

(Effective December 24, 1987)

Sec. 29-349-303. Maximum temperature for storage

Containers of ammonium nitrate shall not be accepted for storage when the temperature of the ammonium nitrate exceeds 130°F.

(Effective December 24, 1987)

Sec. 29-349-304. Ammonium nitrate storage height limitation

Bags of ammonium nitrate shall not be stored within 30 inches of the storage building walls and partitions.

(Effective December 24, 1987)

Sec. 29-349-305. Pile storage requirements

The height of piles shall not exceed 20 feet. The width of piles shall not exceed 20 feet and the length 50 feet except that where the building is of noncombustible construction or is protected by automatic sprinklers the length of piles shall not be limited. In no case shall the ammonium nitrate be stacked closer than 36 inches below the roof or supporting and spreader beams overhead.

(Effective December 24, 1987)

Sec. 29-349-306. Width of aisles

Aisles shall be provided to separate piles by a clear space of not less than 3 feet in width. At least one service or main aisle in the storage shall be not less than 4 feet in width.

(Effective December 24, 1987)

Sec. 29-349-307. Waiver for pile sizes

The requirements for pile sizes and aisles, as set forth in Sections 29-349-305 and 29-349-306 may be waived by the State Fire Marshal where storage facilities are located in remote areas.

(Effective December 24, 1987)

Sec. 29-349-308. Bulk storage by specific approval

Bulk storage of ammonium nitrate shall be permitted only after specific approval by the Local or State Fire Marshal, who shall give due consideration to the location in regard to heavily populated and built up centers.

(Effective December 24, 1987)

Sec. 29-349-309. Permissible bulk storage

Bulk storage may be in covered open piles, in bins, in warehouses, or in silo-type structures and shall totally exclude all other commodities of an organic, combustible or oxidizable nature.

(Effective December 24, 1987)

Sec. 29-349-310. Warehouse ventilation. Combustible construction

Warehouses, if of combustible construction, shall have adequate ventilation or be capable of adequate ventilation in case of fire.

(Effective December 24, 1987)

Sec. 29-349-311. Maximum height requirements

Unless constructed of noncombustible material, bulk storage structures shall not exceed a height of 40 feet.

(Effective December 24, 1987)

Sec. 29-349-312. Bin contamination

Bins shall be clear and free of materials which may contaminate ammonium nitrate.

(Effective December 24, 1987)

Sec. 29-349-313. Prohibited bin construction materials

Due to corrosive and reactive properties of ammonium nitrate, and to avoid contamination, steel, galvanized iron, copper, lead and zinc shall not be used in bin construction unless suitably protected.

(Effective December 24, 1987)

Sec. 29-349-314. Warehouse subdivision

The warehouse may be subdivided by tight partition walls into any desired number of ammonium nitrate storage compartments or bins.

(Effective December 24, 1987)

Sec. 29-349-315. Identification signs

The ammonium nitrate storage bins or piles shall be clearly identified by signs reading "AMMONIUM NITRATE" with letters at least 2 inches high.

(Effective December 24, 1987)

Sec. 29-349-316. Periodic moving of material

Piles or bins shall be so sized and arranged that all material in the pile is moved out periodically in order to minimize possible caking of the stored ammonium nitrate.

(Effective December 24, 1987)

Sec. 29-349-317. Limitations of depth of piles

Height or depth of piles shall be limited by the pressure setting tendency of the product. However, in no case shall the ammonium nitrate be piled higher at any point than 36 inches below the roof or supporting and spreader beams overhead.

(Effective December 24, 1987)

Sec. 29-349-318. Maximum temperature for storage

Ammonium nitrate shall not be accepted for storage when the temperature of the product exceeds 130°F.

(Effective December 24, 1987)

Sec. 29-349-319. Use of explosives prohibited for loosening

Dynamite, other explosives, and blasting agents shall not be used to break up or loosen caked ammonium nitrate.

(Effective December 24, 1987)

Sec. 29-349-320. Wall construction requirements for separation

Ammonium nitrate shall be separated by approved type walls of not less than one hour fire-resistance rating from storage or organic chemicals, acids or corrosive liquids, or other contaminating substances including but not limited to animal fats, baled cotton, baled rags, baled scrap paper, bleaching powder, burlap or cotton bags, caustic soda, coal, coke, charcoal, cork, camphor, excelsior, fibers of any kind, fish oils, fish meal, foam rubber, hay, lubricating oil, linseed oil, or other oxidizable or drying oils, naphthalene, oakum, oiled clothing, oiled paper, oiled textiles, paint, straw, sawdust, wood shavings, or vegetable oils. Walls referred to in this section need extend only to the underside of the roof.

(Effective December 24, 1987)

Sec. 29-349-321. Separation requirements with outwalls

In lieu of separation walls, ammonium nitrate may be separated from the materials referred to in the foregoing section by a space at least 30 feet or more as required

by the Local or State Fire Marshal, and if necessary, sill or curbs shall be provided to prevent mixing during fire conditions.

(Effective December 24, 1987)

Sec. 29-349-322. Flammable liquid storage prohibited

Flammable liquids such as gasoline, kerosene, solvents and light fuel oils shall not be stored on the premises except as approved by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-323. LP-Gas storage prohibited

LP-Gas shall not be stored on the premises except as approved by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-324. Other materials storage restricted

Sulphur and finely-divided metals shall not be stored in the same building with ammonium nitrate except as approved by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-325. Prohibited storage of explosives and blasting agents

(a) Explosives and blasting agents shall not be stored in the same building with ammonium nitrate except on the premises of makers, distributors and user-compounders of explosives or blasting agents.

(b) When explosives or blasting agents are stored in separate buildings, other than on the premises of makers, distributors, and user-compounders of explosives, or blasting agents, they shall be separated from the ammonium nitrate by the distances and/or barricades specified in the Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents, but by not less than 50 feet.

(c) Storage and/or operations on the premises of makers, distributors and user-compounders of explosives or blasting agents shall be in conformity with this Code.

(Effective December 24, 1987)

Sec. 29-349-326. Electrical installations

Electrical installations shall conform to the requirements of the National Electric Code. They shall be designed to minimize damage from corrosion.

(Effective December 24, 1987)

Sec. 29-349-327. Electric light protection

Electric lamps shall be located or guarded so as to preclude contact with bags or other combustible materials.

(Effective December 24, 1987)

Sec. 29-349-328. Housekeeping

Good housekeeping shall be maintained.

(Effective December 24, 1987)

Sec. 29-349-329. Broken bag content salvage

Uncontaminated contents of broken bags may be salvaged by placing the damaged bag inside a clean, new slip-over bag and closing securely. Other spilled materials and discarded containers shall be promptly gathered and disposed of in a safe manner.

(Effective December 24, 1987)

Sec. 29-349-330. Open lights or flames and smoking prohibited

Open lights or flames and smoking shall be prohibited in storage buildings, but this is not meant to exclude heating units approved by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-331. Entrances to warehouses to be properly identified

All points of entry to commercial warehouses in which ammonium nitrate is stored shall be properly identified with durable signs meeting the following specifications:

(a) Signs shall have background and letters in contrasting colors.

(b) Signs shall be worded "AMMONIUM NITRATE," with letters at least 2 inches high.

(Effective December 24, 1987)

Sec. 29-349-332. Vehicle parking in buildings restricted

Internal combustion motor vehicles, lift trucks and cargo conveyors shall not be permitted to remain overnight in a building where ammonium nitrate is stored unless parked in an area approved exclusively for such parking purposes.

(Effective December 24, 1987)

Sec. 29-349-333. Trucks inside warehouses to conform to requirements

Fork trucks, tractors, platform lift trucks, and other specialized industrial trucks used within the warehouse shall conform to the requirements of the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-334. Lightning protection

In areas where lightning storms are prevalent, lightning protection shall be provided. See the Lightning Protection Code, NFPA No. 78.

(Effective December 24, 1987)

Sec. 29-349-335. Unauthorized personnel

Provisions shall be made to prevent unauthorized personnel from entering the ammonium nitrate storage area.

(Effective December 24, 1987)

Sec. 29-349-336. Automatic sprinkler requirements

Unless the storage of a greater quantity is approved by the State Fire Marshal, not more than 2,500 tons of bagged ammonium nitrate shall be stored in a building or structure not equipped with an automatic sprinkler system suitable for high hazard occupancies. When determining whether greater quantities shall be permitted without sprinkler protection, the State Fire Marshal shall take into consideration proximity of the storage building to built-up areas, possible presence of contaminants in the storage building, and the availability of water supplies. Sprinkler protection may be required for the storage of less than 2,500 tons of ammonium nitrate where location of the building or the presence of other stored hazard materials may present a special hazard.

(Effective December 24, 1987)

Sec. 29-349-337. Automatic sprinkler installation

Sprinkler systems shall be approved type and installed in accordance with the requirements of the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-338. Portable fire extinguishers

Suitable fire control devices such as small hose or portable extinguishers shall be provided throughout the warehouse and in the loading and unloading areas as required by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-339. Fire hydrants

Water supplies and fire hydrants shall be available in accordance with recognized good practices and as required by the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-340. Sprinklers, hydrants may be waived

The requirements for automatic sprinklers, water supplies and fire hydrants set forth in this Code may be waived by the State Fire Marshal when storage facilities are located in remote areas.

Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents (Notes 1, 6)**

Donor Weight		Minimum Separation Distance of Receptor When Barricaded (Note 2)	Minimum Thickness of Artificial Barricades (Note 5) (Feet)	(Inches)
Pounds over	Pounds not over	Ammonium Nitrate	Blasting Agent	
	100	3	11	12
100	300	4	14	12
300	600	5	18	12
600	1,000	6	22	12
1,000	1,600	7	25	12
1,600	2,000	8	29	12
2,000	3,000	9	32	15
3,000	4,000	10	36	15
4,000	6,000	11	40	15
6,000	8,000	12	43	20
8,000	10,000	13	47	20
10,000	12,000	14	50	20
12,000	16,000	15	54	25
16,000	20,000	16	58	25
20,000	25,000	18	65	25
25,000	30,000	19	68	30
30,000	35,000	20	72	30
35,000	40,000	21	76	30
40,000	45,000	22	79	35
45,000	50,000	23	83	35
50,000	55,000	24	86	35
55,000	60,000	25	90	35
60,000	70,000	26	94	40
70,000	80,000	28	101	40
80,000	90,000	30	108	40
90,000	100,000	32	115	40
100,000	120,000	34	122	50
120,000	140,000	37	133	50
140,000	160,000	40	144	50
160,000	180,000	44	158	50
180,000	200,000	48	173	50
200,000	220,000	52	187	60
220,000	250,000	56	202	60
250,000	275,000	60	216	60
275,000	300,000	64	230	60

** This Table appears in Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents, adopted as an NFPA Tentative Standard (No. 492-T) in 1967. For a discussion of the derivation of the Table and examples of how it is applied to actual storage situations, see No. 492-T.

NFPA 495 46 NOTE A46 New reference replaced reference to tentative recommendations in Information Circular 7988. New is as follows: "Safety Recommendation for Sensitized Ammonium Nitrate Blasting Agents," Bureau of Mines, U.S. Department of Interior, Information Circular 8179, 1963.

NOTES TO TABLE OF RECOMMENDED SEPARATION AMMONIUM
NITRATE AND BLASTING AGENTS FROM EXPLOSIVES
OR BLASTING AGENTS

Note 1 — Recommended separation distances to prevent explosion of ammonium nitrate and ammonium nitrate based blasting agents by propagation from nearby stores of high explosive or blasting agents referred to in the Table as the “donor.” Ammonium nitrate, by itself, is not considered to be a donor when applying this Table. If stores of ammonium nitrate are located within the sympathetic detonation distance of explosives or blasting agents, one-half the mass of the ammonium nitrate should be included in the mass of the donor. These distances allow for the possibility of high velocity metal fragments from mixers, hoppers, truck bodies, sheet metal structures, metal containers, and the like, which may enclose the “donor.” These distances apply to the separation of stores only. The American Table of Distances shall be used in determining separation distances from inhabited buildings, passenger railways, and public highways.

Note 2 — When the ammonium nitrate and/or blasting agent is not barricaded, the distances shown in the Table shall be multiplied by six. Where storage is in bullet-resistant magazines* recommended for explosives, or where the storage is protected by a bullet resistant wall, distances and barricade thickness in excess of those prescribed in the American Table of Distances are not required.

Note 3 — The distances in the Table apply to ammonium nitrate that passes the insensitivity test prescribed in the National Plant Food Institute;** and ammonium nitrate failing to pass said test shall be stored at separation distances determined by competent persons and approved by the State Fire Marshal’s Office.

Note 4 — These distances apply to nitro-carbo-nitrates and blasting agents which pass the insensitivity test prescribed in the DOT regulations.

* For construction of bullet-resistant magazines, see Chapter 3, NFPA 1967-68.

** Definition and Test Procedures of Ammonium Nitrate Fertilizer, National Plant Food Institute, November 1964.

Note 5 — Earth or sand dikes or enclosures filled with the prescribed minimum thickness of earth or sand are acceptable artificial barricades. Natural barricades, such as hills or timber of sufficient density that the surroundings exposures which require protection cannot be seen from the “donor” when the trees are bare of leaves, are also acceptable.

Note 6 — When the ammonium nitrate must be counted in determining the distances to be maintained from inhabited buildings, passenger railways and public highways, it may be counted at one-half its actual weight.

(Effective December 24, 1987)

CHAPTER X. PROTECTION OF STORED EXPLOSIVES

Sec. 29-349-341. American Table of Distances

The following is the American Table of Distances for Storage of Explosives.

<i>American Table of Distances for Storage of Explosives</i>			<i>Distance in Feet</i>		
<i>Explosives</i>		<i>When Storage is Barricaded</i>			
<i>Pounds over</i>	<i>Pounds not over</i>	<i>Inhabited buildings</i>	<i>Passenger railways</i>	<i>Public highways</i>	<i>Separation of magazines</i>
2	5	70	30	30	6
5	10	90	30	30	8
10	20	110	45	45	10
20	30	125	50	50	11
30	40	140	55	55	12
40	50	150	60	60	14
50	75	170	70	70	15
75	100	190	75	75	16
100	125	200	80	80	18
125	150	215	85	85	19
150	200	235	95	95	21
200	250	255	105	105	23
250	300	270	110	110	24
300	400	295	120	120	27
400	500	320	130	130	29
500	600	340	135	135	31
600	700	355	145	145	32
700	800	375	150	150	33
800	900	390	155	155	35
900	1,000	400	160	160	36
1,000	1,200	425	170	165	39
1,200	1,400	450	180	170	41
1,400	1,600	470	190	175	43
1,600	1,800	490	195	180	44
1,800	2,000	505	205	185	45
2,000	2,500	545	220	190	49
2,500	3,000	580	235	195	52
3,000	4,000	635	255	210	58
4,000	5,000	685	275	225	61
5,000	6,000	730	295	235	65
6,000	7,000	770	310	245	68
7,000	8,000	800	320	250	72
8,000	9,000	835	335	255	75
9,000	10,000	865	345	260	78
10,000	12,000	875	370	270	82
12,000	14,000	885	390	275	87
14,000	16,000	900	405	280	90
16,000	18,000	940	420	285	94
18,000	20,000	975	435	290	98
20,000	25,000	1,055	470	315	105
25,000	30,000	1,130	500	340	112
30,000	35,000	1,205	525	360	119
35,000	40,000	1,275	550	380	124
40,000	45,000	1,340	570	400	129
45,000	50,000	1,400	590	420	135

<i>Explosives</i>		<i>Distance in Feet When Storage is Barricaded</i>			
<i>Pounds over</i>	<i>Pounds not over</i>	<i>Inhabited buildings</i>	<i>Passenger railways</i>	<i>Public highways</i>	<i>Separation of magazines</i>
50,000	55,000	1,460	610	440	140
55,000	60,000	1,515	630	455	145
60,000	65,000	1,565	645	470	150
65,000	70,000	1,610	660	485	155
70,000	75,000	1,655	675	500	160
75,000	80,000	1,695	690	510	165
80,000	85,000	1,730	705	520	170
85,000	90,000	1,760	720	530	175
90,000	95,000	1,790	730	540	180
95,000	100,000	1,815	745	545	185
100,000	110,000	1,835	770	550	195
110,000	120,000	1,855	790	555	205
120,000	130,000	1,875	810	560	215
130,000	140,000	1,890	835	565	225
140,000	150,000	1,900	850	570	235
150,000	160,000	1,935	870	580	245
160,000	170,000	1,965	890	590	255
170,000	180,000	1,990	905	600	265
180,000	190,000	2,010	920	605	275
190,000	200,000	2,030	935	610	285
200,000	210,000	2,055	955	620	295
210,000	230,000	2,100	980	635	315
230,000	250,000	2,155	1,010	650	335
250,000	275,000	2,215	1,040	670	360
275,000	300,000	2,275	1,075	690	385

(Effective December 24, 1987)

Sec. 29-349-342. Existing Class B magazines

Magazines constructed and licensed prior to September 1, 1964 and used exclusively for the storage of Class B explosives may be located at one-half the distance specified in the table.

(Effective December 24, 1987)

Sec. 29-349-343. Non-barricaded magazines

When a building containing explosives is not barricaded, the distance shown in the table shall be doubled.

(Effective December 24, 1987)

Sec. 29-349-344. Requirements for two or more magazines on same property

When two or more storage magazines are located on the same property, each magazine must comply with the minimum distances specified from inhabited buildings, railways and highways, and in addition, they should be separated from each other by not less than the distances shown for "Separation of Magazines" except that the quantity of explosives contained in cap magazines shall govern in regard to the spacing of said cap magazine from magazines containing other explosives. If any two or more magazines are separated from each other by less than the specified "Separation of Magazines" distances, then such two or more magazines, as a group must be considered as one magazine, and the total quantity of explosives stored in each group must be treated as if stored in a single magazine located on the site of

any magazine of the group, and must comply with the minimum distances specified from other magazines, inhabited buildings, railways and highways.

(Effective December 24, 1987)

Sec. 29-349-345. Storage of explosives exceeding 300,000 pounds

The permanent storage of more than 300,000 pounds of commercial explosives in one magazine or in a group of magazines which is considered as one magazine is not permitted except by the specific approval of the State Fire Marshal.

(Effective December 24, 1987)

Sec. 29-349-346. Explosive rating of blasting caps

All types of blasting caps in strength through No. 8 shall be rated at 1½ pounds of explosives per 1,000 caps. The State Fire Marshal shall designate the ratings of caps higher in strength than No. 8.

(Effective December 24, 1987)

CHAPTER XI. WATER GELS OR SLURRY EXPLOSIVES**

Sec. 29-349-347. General provisions

Unless otherwise set forth in this chapter, water gels shall be transported, stored and used in the same manner as explosives or blasting agents in accordance with the classification of the product.

(Effective December 24, 1987)

** Chapter 9, NFPA 1968-68

Sec. 29-349-348. Premixed water gels

Premixed water gels containing a substance in itself classified as an explosive shall be classified as an explosive and manufactured, transported, stored, and used as specified for explosives in this Code.

(Effective December 24, 1987)

Sec. 29-349-349. Cap-sensitive premixed water gels

Premixed water gels containing no substance in itself classified as an explosive and which are cap-sensitive as defined in Section 29-349-106 of this Code under Blasting Agent shall be classified as an explosive and manufactured, transported, stored, and used as specified for explosives in this Code.

(Effective December 24, 1987)

Sec. 29-349-350. Non cap-sensitive premixed water gels

Premixed water gels containing no substance in itself classified as an explosive and which are NOT cap-sensitive as defined in Section 29-349-106 of this Code under Blasting Agent shall be classified as blasting agents and manufactured, transported, stored, and used as specified for blasting agents in this Code.

(Effective December 24, 1987)

Sec. 29-349-351. On-site mixed water gels

Ingredients for on-site mixed water gels shall be stored as set forth in this section.

(a) Ingredients in themselves classified as Class A or Class B explosives shall be stored in conformity with Chapter IV of this Code.

(b) Ingredients, other than ammonium nitrate, not in themselves classified as explosives, shall be stored in warehouses which shall be noncombustible or fire resistive.

(c) Prilled, grained, or granulated ammonium nitrate shall be stored in accordance with Chapter IX, Code for the Storage of Ammonium Nitrate. If ammonium nitrate is stored in the vicinity of explosives or blasting agents, the separation distances specified in the Table of Recommended Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives shall be observed.

(d) Liquid ammonium nitrate solutions shall be stored in tank cars, tank trucks, or permanent tanks in a location approved by the authority having jurisdiction. Spills or leaks which may contaminate combustible materials shall be cleaned up immediately.

(Effective December 24, 1987)

Sec. 29-349-352. Electric power sources

If electric power is used it may be furnished by cable from an outside source or by a self-contained motor generator. In the case of a self-contained power source, it shall be located at the end of the storage container opposite that at which the blasting agent is discharged. It shall have adequate capacity for the loads to be expected and be equipped with suitable overload protection devices.

(Effective December 24, 1987)

Sec. 29-349-353. Electric wiring requirements

Electric wiring carrying voltages greater than 21 volts shall be armored or in conduit and, if dry ingredients are employed, the wiring shall conform to the requirements of Class II, Division 2 of the National Electrical Code NFPA No. 70. The materials protecting the electric wiring must be of such composition that they will not be chemically attacked by the ingredients being processed.

(Effective December 24, 1987)

Sec. 29-349-354. Mixing equipment requirements

Mixing equipment for on-site mixed water gels shall comply with the requirements of this section.

(a) All electric motors, electrically operated proportioning devices, etc., shall be electrically bonded.

(b) All electric motors, electrically operated proportioning devices, etc., used for dry ingredients shall conform to the requirements of Class II, Division 2 of the National Electrical Code, NFPA No. 70.

(c) The entire loading and mixing equipment shall be cleaned periodically to insure against accumulations of ingredients.

(Effective December 24, 1987)

CHAPTER XII. SMALL ARMS AMMUNITION, SMALL ARMS PRIMERS AND SMOKELESS PROPELLANTS

Sec. 29-349-355. General provisions

In addition to all other applicable requirements in this Code, the intrastate transportation of small arms ammunition, small arms ammunition primers and smokeless propellants shall be in accordance with current U.S. Department of Transportation regulations.

(Effective December 24, 1987)

Sec. 29-349-356. Chapter provisions that do not apply

The provisions of this chapter do not apply in process storage and intra-plant transportation during manufacture of small arms ammunition, small arms primers, and smokeless propellants.

(Effective December 24, 1987)

Sec. 29-349-357. Small arms ammunition

No restrictions are imposed on truck or rail transportation of small arms ammunition other than those which are imposed by the U.S. Department of Transportation or by the presence of other hazardous material.

(Effective December 24, 1987)

Sec. 29-349-358. Small arms ammunition warehouse storage unlimited

No quantity limitations shall be imposed on storage of small arms ammunition in warehouses, retail stores and other general occupancies, except those imposed by limitations of storage facilities and consistency with public safety.

(Effective December 24, 1987)

Sec. 29-349-359. Separation from flammables

Small arms ammunition shall be separated from flammable liquids, flammable solids (as classified by the U.S. Department of Transportation), and oxidizing materials by a fire-resistive wall of one-hour rating or by a distance of 25 feet.

(Effective December 24, 1987)

Sec. 29-349-360. Storage with Class A or Class B explosives prohibited

Small arms ammunition shall not be stored together with Class A or Class B explosives (as defined by U.S. Department of Transportation regulations) unless the storage facility is adequate for this later storage.

(Effective December 24, 1987)

Sec. 29-349-361. Smokeless propellants

Quantities of smokeless propellants in shipping containers approved by the U.S. Department of Transportation not in excess of 50 pounds may be transported in a passenger vehicle.

(Effective December 24, 1987)

Sec. 29-349-362. Limits for transportation in passenger vehicles

Quantities in excess of 25 pounds but not exceeding 50 pounds in a passenger vehicle shall be transported in a portable magazine having wooden walls of at least 1 inch nominal thickness.

(Effective December 24, 1987)

Sec. 29-349-363. Transportation in passenger vehicles of quantities in excess of 50 pounds. Prohibited

Transportation of quantities in excess of 50 pounds is prohibited in passenger vehicles.

(Effective December 24, 1987)

Sec. 29-349-364. Display of warning placards

Transportation of quantities in excess of 50 pounds in other than passenger vehicles shall be in accordance with U.S. Department of Transportation regulations, except that warning placards shall be prominently displayed when more than 250 pounds are being transported.

(Effective December 24, 1987)

Sec. 29-349-365. Shipping container storage

All smokeless propellants shall be stored in DOT-approved shipping containers.

(Effective December 24, 1987)

Sec. 29-349-366. Residential storage

Smokeless propellants intended for personal use in quantities not to exceed 50 pounds may be stored in residences; quantities over 20 pounds but not to exceed 50 pounds shall be stored in a wooden box or cabinet having walls or at least 1 inch nominal thickness.

(Effective December 24, 1987)

Sec. 29-349-367. Commercial establishment displays

Not more than 50 pounds of smokeless propellants, in containers of 1-pound maximum capacity, shall be displayed in commercial establishments. Commercial stocks of smokeless propellants over 20 pounds and not more than 100 pounds shall be stored in approved wooden boxes having walls of at least 1 inch nominal thickness. Not more than 50 pounds shall be permitted in any one box.

(Effective December 24, 1987)

Sec. 29-349-368. Commercial stock storage

Commercial stocks in quantities not to exceed 750 pounds shall be stored in storage cabinets having wooden walls of at least 1 inch nominal thickness. Not more than 400 pounds shall be permitted in any one cabinet.

(Effective December 24, 1987)

Sec. 29-349-369. Storage in excess of 750 pounds to be in magazines

Quantities in excess of 750 pounds shall be stored in magazines constructed and located as specified in Chapter IV.

(Effective December 24, 1987)

Sec. 29-349-370. Small arms ammunition primers

Small arms ammunition primers shall not be transported or stored except in the original shipping container approved by the U.S. Department of Transportation.

(Effective December 24, 1987)

Sec. 29-349-371. Truck or rail transportation

Truck or rail transportation of small arms ammunition primers shall be in accordance with U.S. Department of Transportation regulations.

(Effective December 24, 1987)

Sec. 29-349-372. Primers limited in passenger vehicles

Not more than 25,000 small arms ammunition primers shall be transported in a passenger vehicle.

(Effective December 24, 1987)

Sec. 29-349-373. Primer storage limited in residence

Not more than 10,000 small arms ammunition primers may be stored in residences.

(Effective December 24, 1987)

Sec. 29-349-374. Primer displays limited

Not more than 10,000 small arms ammunition primers may be displayed in commercial establishments.

(Effective December 24, 1987)

Sec. 29-349-375. Primers to be separated from other materials

Small arms ammunition primers shall be separated from flammable liquids, flammable solids (as classified by the U.S. Department of Transportation), and oxidizing materials by a fire-resistant wall of one-hour rating or by a distance of 25 feet.

(Effective December 24, 1987)

Sec. 29-349-376. Primer storage limitations

Not more than 750,000 small arms ammunition primers shall be stored in any one building, except as provided in Section 29-349-377; not more than 100,000 shall be stored in any one pile, and piles shall be at least 15 feet apart.

(Effective December 24, 1987)

Sec. 29-349-377. Primer storage in magazines

Quantities of small arms ammunition primers in excess of 750,000 shall be stored in magazines in accordance with this Code.

(Effective December 24, 1987)

CHAPTER XIII. FORBIDDEN EXPLOSIVES

Sec. 29-349-378. Forbidden explosives list

Explosives forbidden or not acceptable for transportation by these regulations shall include, but are not limited to:

- (a) Liquid nitroglycerin.
- (b) Dynamite (except gelatin dynamite) containing over 60 percent of liquid explosive ingredient.
- (c) Dynamite having an unsatisfactory absorbent or one that permit leakage of a liquid explosive ingredient under any conditions liable to exist during storage.
- (d) Nitrocellulose in a dry and uncompressed condition in quantity greater than 10 pounds net weight in one package.
- (e) Fulminate of mercury in a dry condition and fulminate of all other metals in any condition except as a component of manufactured articles not hereinafter forbidden.
- (f) Explosive compositions that ignite spontaneously or undergo marked decomposition rendering the products of their use more hazardous when subjected for 48 consecutive hours or less to a temperature of 167°F. (75°C.)
- (g) Explosives containing an ammonium salt and a chlorate.
- (h) New explosives until approved by the U.S. Department of Transportation except that a permit may be granted for transportation and possession for laboratory examination of such explosives when under development by responsible research organizations.
- (i) Explosives not packed or marked in accordance with the requirements of the U.S. Department of Transportation.
- (j) Explosives condemned by the U.S. Department of Transportation.

(Effective December 24, 1987)

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Sale, Use, Transportation and Storage of Fireworks and Special Effects

Secs. 29-357-1—29-357-16.

Repealed, December 30, 1990.

Connecticut Fireworks and Special Effects Code

Sec. 29-357-1a.

Repealed, November 24, 1999.

Sec. 29-357-1b. Introduction

Regulations of the Department of Public Safety Sections 29-357-1b to 29-357-12b, inclusive, and Sections 29-357-15a to 29-357-23a, inclusive, shall be known as the Connecticut Fireworks and Special Effects Code.

(Adopted effective November 24, 1999)

Secs. 29-357-2a—29-357-14a.5.

Repealed, November 24, 1999.

Sec. 29-357-2b. Authority having jurisdiction

For the purposes of regulations adopted by reference under Section 29-357 of the Connecticut General Statutes, “the authority having jurisdiction” means the State Fire Marshal. The State Fire Marshal is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within the Connecticut Fireworks and Special Effects Code.

(Adopted effective November 24, 1999)

Sec. 29-357-3b. Variations, exemptions or modifications

The Connecticut Fireworks and Special Effects Code is not intended to prevent the use of any material, equipment, method of construction or installation procedure not specifically prescribed herein. The State Fire Marshal may grant variations or exemptions from, or approve equivalent or alternate compliance with, particular provisions of the Connecticut Fireworks and Special Effects Code, where strict compliance with such provisions would entail practical difficulty or unnecessary hardship or is otherwise adjudged unwarranted, provided any such variation or exemption or approved equivalent or alternate compliance shall, in the opinion of the State Fire Marshal, secure the public safety. Requests for variations, exemptions or modifications of any provisions of the Connecticut Fireworks and Special Effects Code, shall be in writing on a form prescribed by the State Fire Marshal. The State Fire Marshal may require the submission of sufficient supporting technical data to substantiate the proposed variation, exemption or modification.

(Adopted effective November 24, 1999)

Sec. 29-357-4b. Definitions

As used in the Connecticut Fireworks and Special Effects Code:

(1) “Amusement park” means an outdoor area used, maintained and operated as a place of recreation or amusement;

(2) “Applicant” means any person, firm or corporation requesting a permit to conduct a supervised display of fireworks or for the indoor use of pyrotechnics for

special effects by municipalities, fair associations, amusement parks, other organizations or groups of individuals or artisans in pursuit of their trade;

(3) “ASTM” means the American Society for Testing and Materials, located at 100 Barr Drive, West Conshohocken, PA 19428-2959;

(4) “Black match” means a fuse made from thread impregnated with black powder and used for igniting pyrotechnic devices;

(5) “Boxed finale” means a number of racks of mortars grouped closely together;

(6) “Break” means an individual effect from an aerial shell;

(7) “Certificate of competency” means a written assurance of an operator’s qualifications, issued by the State Fire Marshal in accordance with the provisions of Section 29-357 of the Connecticut General Statutes;

(8) “Certified” means an individual certified in accordance with the provisions of Section 29-298 of the Connecticut General Statutes;

(9) “Common fireworks” means any small fireworks device designed primarily to produce visible effects by combustion, including whistling devices, ground devices containing 50 milligrams or less of explosive composition, novelty devices and trick noise makers;

(10) “Debris” means materials remaining after the discharge of fireworks or special effects, excluding non-pyrotechnic materials such as small pieces of paper, cardboard or plastic and litter left by spectators;

(11) “Discharge site” means the area immediately surrounding the mortars used to fire aerial shells;

(12) “Display” means the set up, firing or deflagration of fireworks, including ground or aerial displays;

(13) “Fair association” means an association organized for the purpose of promoting, encouraging, improving and exhibiting agricultural and mechanical products;

(14) “Finale rack” or “aboveground rack” means a row of closely spaced mortars with an inside diameter of up to 6 inches, held in a wooden frame, and similar to a boxed finale;

(15) “Fireworks” shall have the meaning ascribed to it in Section 29-356 of the Connecticut General Statutes;

(16) “Fusee” means a friction match with a bulbous head not easily blown out;

(17) “Ground display piece” means a pyrotechnic device that functions on the ground, including fountains, Roman candles, wheels and set pieces;

(18) “HDPE” means high density polyethylene;

(19) “Inhabited building” means a building or structure regularly used in whole or in part as a place of human habitation, including any church, school, store, passenger station, airport terminal for passengers or other building or structure where people are accustomed to congregate or assemble, but excluding any building or structure occupied in connection with the manufacture of fireworks;

(20) “Lift charge” means the part of an aerial shell which actually lifts the shell into the air;

(21) “Mortar” means a metal, HDPE, fiber reinforced epoxy or heavy cardboard tube from which aerial shells are fired;

(22) “Operator” means the holder of a certificate of competency who fires off, discharges, or deflagrates fireworks or special effects;

(23) “Permit” means a written license, issued by the State Fire Marshal, for the display of fireworks or special effects;

(24) “Port fire” means a long tube containing slow-burning pyrotechnic composition that is sometimes used to ignite fireworks at outdoor fireworks displays;

(25) "Potential landing area" means the area over which aerial shells are fired and do not normally burst;

(26) "Pyrotechnics" means the display of fireworks;

(27) "Pyrotechnic composition" means any combination of chemical elements or chemical compounds capable of burning independently of the oxygen and atmosphere;

(28) "Pyrotechnic device" means any combination of materials, including pyrotechnic compositions that, by the agency of fire, produce an audible, visual, mechanical or thermal effect;

(29) "Quick match" means a black match encased in a loose fitting paper sheath for instantaneous burning;

(30) "Ready box" means a storage container for aerial fireworks, such as mines, comets and shells, at the site of a fireworks display.

(31) "Safety cap" means a paper tube that is placed over the end of the fuse of an aerial shell to protect it from accidental ignition;

(32) "Safety fallout zone" means potential landing area;

(33) "Shell" or "aerial" means a cylindrical or spherical cartridge containing pyrotechnic composition, a long fuse, and a black powder lift charge;

(34) "Special effects" means any article containing pyrotechnic composition manufactured and assembled, designed, or discharged in connection with television, theater, or motion picture productions, which may or may not be presented before live audiences. The definition of special effects may also encompass other articles containing any pyrotechnic composition used for education, recreation or entertainment purposes, which may or may not be presented before live audiences, indoors or outdoors;

(35) "Stage" means a partially enclosed portion of an assembly building which is designed or used for the presentation of displays, demonstrations, or other entertainment wherein scenery, drops, or other effects may be installed or used, and where the distance between the top of the proscenium opening and the ceiling above the stage is more than 5 feet;

(36) "Standard dimensional ratio" or "SDR" means the numerical designation of the formula used to determine the inside diameter of high density polyethylene by dividing the outside diameter by the wall thickness; and

(37) "Static set piece" means a ground display attached to a frame and connected with quick match for simultaneous ignition.

(Adopted effective November 24, 1999)

Sec. 29-357-5b. Permits to display fireworks or special effects

(a) Applications for permits for supervised displays of fireworks or the indoor use of pyrotechnics for special effects shall be made in accordance with the requirements of subsection (b) of Section 29-357 of the Connecticut General Statutes.

(b) Denial of any permit application for such display of fireworks or special effects by the police or fire chief or first selectman of the municipality in which the display is to be held shall constitute sufficient cause for the State Fire Marshal to refuse issuance of the requested permit.

(c) The State Fire Marshal shall be notified in writing of any changes in the information contained within the application not later than 24 hours before the scheduled display.

(Adopted effective November 24, 1999)

Sec. 29-357-6b. Certificate of competency required to display fireworks or special effects

(a) Applications for a certificate of competency to display fireworks or special effects shall be submitted on forms furnished by the State Fire Marshal, subject to the following requirements:

(1) The applicant shall provide evidence of at least three years of employment on a professional fireworks or special effects crew with responsibility for at least 10 supervised displays. In the case of fireworks, such displays shall include at least one finale of 100 or more 3-inch shells.

(2) Such evidence shall consist of a log book containing the date and location of each supervised display that the applicant was associated with, the applicant's responsibilities with respect to each such display, and the name, signature and license number of the operator responsible for the display.

(3) Each applicant for a certificate of competency shall produce the following: a recent photograph, fingerprints, two positive forms of identification, two personal references by persons who have known the applicant for at least five years, a letter from the chief of police of the municipality in which the applicant resides attesting to the applicant's good character and suitability to handle fireworks or special effects, and three letters from operators in the applicable field, fireworks or special effects, attesting to the applicant's competence in handling fireworks or special effects. At least one of the operators attesting to the applicant's competency shall hold a valid Connecticut certificate of competency in the specific field for which application is made.

(4) Applicants shall receive a passing grade on a written examination administered by the State Fire Marshal in order to be issued a certificate of competency.

(b) The holder of a certificate of competency shall keep such certificate in his possession whenever he handles fireworks or special effects.

(c) Following notice and the opportunity to be heard in accordance with the provisions of Chapter 54 of the Connecticut General Statutes, the State Fire Marshal may revoke a certificate of competency for any violation of the Connecticut Fireworks and Special Effects Code, or in instances where the holder's conduct or condition constitutes a threat to public safety.

(Adopted effective November 24, 1999)

Sec. 29-357-7b. Operator responsibilities

(a) When handling or firing fireworks or special effects, the operator shall assure the following:

(1) That the display is in strict compliance with all the provisions of the Connecticut Fireworks and Special Effects Code;

(2) That all fireworks or special effects are properly unloaded, stored, prepared, set, and discharged. The operator shall also ensure the proper disposition of all unfired or defective fireworks or special effects and, in determining the appropriate firing angle, he shall consider the wind direction and velocity predicted for the firing time;

(3) That all fireworks or special effects are properly inspected; and

(4) That all persons employed in connection with the fireworks or special effects display properly perform their duties and conduct themselves in a safe and appropriate manner.

(b) Two or more persons shall be on duty during a display of fireworks or special effects. At least one of them shall hold a certificate of competency, while the second

shall assist the certificate holder. The state or local fire marshal or senior fire officer at the scene may limit the number of persons in the safety fallout zone in the interests of safety.

(c) Persons serving as assistants to the operator shall be at least 18 years of age and not have had a certificate of competency suspended or revoked at the time of the display.

(d) Drugs or alcohol, persons under the influence of drugs or alcohol, or persons under the age of 18 shall be prohibited from the discharge or storage site.

(Adopted effective November 24, 1999)

Sec. 29-357-8b. Accidents, personal injury or property damage involving displays of fireworks or special effects

(a) All accidents involving fireworks or special effects that cause personal injury or property damage shall be reported to the State Fire Marshal and the local fire marshal.

(b) Personal injury accidents.

(1) The local fire marshal or, in his absence, the senior fire officer at the scene of any accident resulting in personal injury due to the use of fireworks or special effects, shall immediately notify the State Fire Marshal of such accident. The local fire marshal or senior fire officer at the scene shall also submit a detailed written report to the State Fire Marshal within 48 hours of the occurrence of such accident.

(2) Within 48 hours of the occurrence of any accident involving personal injury, the operator shall submit a detailed written report to the State Fire Marshal, which report shall include the cause and extent of injuries to any person, name and addresses of the person or persons injured, and name and addresses of the operator and his assistants.

(3) Protection of the accident scene.

Whenever an accident resulting in personal injury occurs due to the use of fireworks or special effects, all equipment and items used in the display shall be secured in place until the accident scene is released by the senior police or fire officer at the scene, the local fire marshal or the State Fire Marshal.

(c) Accidents or incidents causing property damage only.

Within 10 days of any fireworks or special effects display that results in property damage, the operator shall submit a detailed written report to the State Fire Marshal, which report shall contain the following information:

(1) The nature and extent of any property damage resulting from the discharge of fireworks or special effects;

(2) A statement regarding whether any fires were caused by the fireworks or special effects; and

(3) The manufacturer's name, type and size of any shell that failed to discharge or was otherwise defective.

(Adopted effective November 24, 1999)

Sec. 29-357-9b. Disposal of unfired shells and debris from fireworks or special effects displays

(a) Upon completion of the display, the operator shall cause to be made a complete and thorough search for any unfired fireworks or fireworks components that have failed to fire or function properly, and shall dispose of them in a safe manner.

(b) Such search shall begin at the earliest possible time following the conclusion of the display, but in no event later than the first period of daylight which follows the display. Retrieval of all unfired fireworks shall be confirmed by the senior fire officer at the display site.

(c) Any fireworks that remain unfired after the display is concluded shall be immediately disposed of or removed from the display site in a manner safe for the particular type of fireworks used.

(d) Debris from discharged fireworks shall be properly disposed of by the operator before leaving the display site.

(Adopted effective November 24, 1999)

Sec. 29-357-10b. Cancellation of fireworks or special effects displays

The local fire chief, local fire marshal, or senior law enforcement or fire officer at the display site shall be authorized to cancel any fireworks or special effects display when the behavior or condition of the operator or one or more of his assistants threatens public safety or when any condition exists which threatens public safety.

(Adopted effective November 24, 1999)

Sec. 29-357-11b. Displays of special effects

(a) Fire and police protection required at special effect displays.

(1) The local fire marshal or his certified designee shall be present at all special effects displays.

(2) Reasonable and adequate supervision of areas within the immediate vicinity of any display may be determined by the chief of police, local fire marshal, state police in areas under the jurisdiction of the Department of Public Safety, Division of State Police, or the first selectman of any municipality not having a police or fire department.

(3) Police and fire protection shall be paid for by the applicant.

(b) The following standard promulgated by the National Fire Protection Association (NFPA) is hereby adopted as part the Connecticut Fireworks and Special Effects Code:

NFPA 1126-1996

Standard for the Use of Pyrotechnics before a Proximate Audience.

This standard is available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, Massachusetts 02269.

(Adopted effective November 24, 1999)

Sec. 29-357-12b. Displays of fireworks

(a) Fire and police protection required at fireworks displays.

(1) The local fire marshal or his certified designee shall be present at all fireworks displays.

(2) Duration of police and fire personnel assignment to fireworks displays.

(A) Fire Department personnel shall remain on duty from the time that the fireworks are delivered to the display site until termination of the display and removal of all fireworks and debris from the site.

(B) Reasonable and adequate supervision of areas within the immediate vicinity of any display may be determined by the chief of police, local fire marshal, state police in areas under the jurisdiction of the Department of Public Safety, Division of State Police, or the first selectman of any municipality not having a police or fire department.

(3) Police and fire protection shall be paid for by the applicant.

(b) Days, hours and weather conditions when fireworks displays shall be prohibited.

(1) No fireworks display shall be conducted on any day between midnight and 8:00 a.m., except on July 3, July 4, December 31 and January 1.

(2) Fireworks displays shall not be held during any electrical storm or at any time when the wind consistently reaches a velocity of more than 20 miles per hour during the period when the display is to be fired. Within the allowable limits of the permit, a display may be delayed for a few minutes if a brief storm can pass in a reasonable time. The operator shall have available for use at all times a portable anemometer or similar device for measuring wind velocity.

(c) Distances from general public and structures.

(1) Members of the general public shall be restrained by a physical barrier at least 300 feet from the point at which the aerial fireworks are discharged. Only operators, their assistants and necessary emergency personnel shall be allowed inside such lines. The minimum separation distance shall be maintained from the time that fireworks are loaded into mortars until a post-display search of the site is conducted.

(2) A fireworks display of aerial shells shall be permitted only when the actual point at which fireworks are to be fired is in compliance with the following table of distances:

NOTE: THE MINIMUM SEPARATION DISTANCE FROM SPECTATORS AND INHABITED BUILDINGS SHALL NOT BE LESS THAN 300 FEET.

Mortar size in inches	Minimum distance from spectators and inhabited buildings	Other buildings, public highways, railroads	Inhabited school, hospital, church, theater, penal institution or similar institution or bulk storage facilities of explosives, flammable or toxic materials
0'' to 4''	300 feet	200 feet	500 feet
5''	350 feet	200 feet	500 feet
6''	420 feet	250 feet	600 feet
7''	490 feet	300 feet	700 feet
8''	560 feet	300 feet	800 feet
9''	630 feet	400 feet	900 feet
10''	700 feet	400 feet	1000 feet
11''	770 feet	400 feet	1100 feet
12''	840 feet	400 feet	1200 feet
Over 12''	70 feet per mortar bore inch		100 feet per mortar bore inch

(3) Ground displays of common fireworks with moving parts, the functioning height of which shall not be more than 100 feet, shall be located at least 200 feet from the general public or any inhabited building.

(4) Static set pieces containing no moving parts shall be located at least 75 feet from the general public or any inhabited building.

(5) No vehicles, water craft, amusement rides, portable structures or equipment shall be located within the safety fallout zone, except as follows:

(A) Necessary emergency equipment or equipment required for the display set up, such as a backhoe or similar equipment; or

(B) With special permission from the local fire marshal or the State Fire Marshal, if present, amusement rides placed within the safety fallout zone, provided that the rides are at least 300 feet from the discharge site, all rides located inside the safety fallout zone are shut down for the day at least one hour before the scheduled firing time, and all persons maintain required separation distances.

(6) Fireworks discharge sites shall be located 50 feet or more from any overhead obstruction, except that such discharge sites may be located within 25 feet of trees.

(7) Whenever possible, all ground display pieces and set pieces shall be positioned out of the firing range of aerial displays.

(8) No dry grass or combustibles shall be located beneath ground display pieces. If dry, the area shall be thoroughly wet down before the display.

(9) Poles for ground display pieces shall be securely placed and firmly braced to prevent accidental displacement from any cause.

(d) Temporary and prohibited storage of fireworks.

(1) No person, firm or corporation shall store fireworks or special effects in any municipality until permission for such storage has been granted by the local fire marshal.

(2) The local fire marshal shall ensure that all fireworks and special effects at display sites or awaiting public display shall be stored in a place and manner secure from fire, accidental discharge or theft.

(3) Whenever fireworks or special effects are stored at places of public display, they shall be securely locked and labeled ‘FIREWORKS NO SMOKING.’

(4) Fireworks shall not be stored in the following locations:

(A) Buildings used in whole or part as schools, theaters, churches, hospitals, workshops, residences, factories or buildings that are otherwise inhabited;

(B) Buildings where paints, oils or varnishes are manufactured or stored;

(C) Buildings where any hazardous materials, matches, turpentine, resin, or gasoline are stored or kept; or

(D) Buildings in which stoves or exposed flames are used.

(e) Safety equipment required during the display of fireworks.

(1) All operators and assistants shall wear appropriate safety equipment including, but not limited to, eye protection, ear protection and protective headgear.

(2) Any person manually discharging aerial shells or reloading shells into mortars during the display shall wear eye protection, a hard hat, long-sleeved shirt or jacket, long pants, shoes or boots, gloves and ear protection.

(f) Ready boxes.

(1) Before any firing begins, the entire complement of shells for any public display shall be brought to the firing site and stored in ready boxes at a point not less than 25 feet distance upwind from the nearest mortar.

(2) Ready boxes shall be constructed of wood, metal, heavy cardboard or plastic and arranged to open away from the mortars.

(3) A flameproof water repellent cover shall protect all ready boxes from the time that they are placed into position to the time that they are empty, except when shells are being taken from or returned to such boxes.

(g) Angle of projectile.

All fireworks that fire a projectile shall be set in such a manner that the projectile is launched as nearly vertical as possible, provided that where such fireworks are to be fired beside a lake or other large body of water, they may be directed in such a manner that falling residue will fall into the water.

(h) Electrical firing mechanisms.

(1) Power sources for firing fireworks shall be limited to batteries or individual isolated mechanisms specifically approved by a recognized national testing laboratory.

(2) Only a low voltage power source shall be permitted from the firing mechanism to the fireworks, unless the source consists of a system listed by a nationally recognized testing laboratory.

(3) Short circuit shunts shall be maintained on all electrically fired fireworks during preparatory operations, including loading, setting and adjusting. Fireworks that fail to ignite during a show shall be shunted prior to their removal.

(4) All firing switches, including battery and power-circuit types, shall be designed or altered to insure against accidental firing by providing as follows:

(A) An automatic short circuiting shunt across the firing leads until the switch is intentionally thrown to the firing position; and

(B) An automatic positive disconnection when the switch is released by the operator. Firing boxes shall be designed to prevent firing unless the switch is manually operated.

(5) Connection of any electrical firing circuit to any power supply is prohibited until all fireworks in the sequence are connected to firing leads and cleared for firing, except for circuit testers, provided that the circuit testers shall not be capable of delivering sufficient energy to cause the fireworks circuit being tested to fire. Permissible testers include galvanometers, low current multimeters, or built-in circuit testers in the firing system supplying no more than 25 miliamps.

(i) Shells.

(1) Electrical firing, chained fuse firing, or other approved types of remote firing shall be required for all shells larger than 8 inches in diameter. The operator shall be located at least 100 feet from such shells when firing.

(2) Shells shall be ignited by electrical initiation or by lighting the tip of the fuse with a fusee, torch, port fire or similar device. Electrical firing must comply with the requirements of subsection (h) of this section. As soon as the fuse is ignited, the operator shall retreat from the mortar area.

(3) The safety cap protecting the fuse shall not be removed by the operator responsible for lighting the fuse until immediately before the shell is to be fired, except where electrical or other remote-type ignition is used.

(4) The operator shall carefully observe the first shell fired to determine that its trajectory will carry it into the intended firing range and that the shell functions over, and any debris falls into, the potential landing area. Mortars shall be re-angled or reset if necessary at any time during the display.

(5) Shells shall be measured and classed only in terms of the inside diameter of the mortar from which they are designed to be shot. Shells shall be constructed so that the difference between the inside diameter of the mortar and the outside diameter of the shell is not less than 1/8 inch and not more than 1/4 inch for 2- and 3-inch shells, or not more than 1/2 inch for shells larger than 3 inches.

(6) All shells shall be inspected prior to the display by the operator. Shells shall be inspected for proper fit into the mortars. Any shell not fitting properly shall not be fired. No shell shall be forced into a firing mortar.

(7) Any shell having tears, leaks or showing signs of having been wet shall be returned to the supplier or destroyed according to manufacturer's instructions, except that minor tears on fuses may be repaired with tape.

(8) After the fireworks have been delivered to the display site, all shells shall be separated according to diameter and stored in covered containers of metal, wood,

plastic, or corrugated cardboard. Such containers shall meet the requirements of 49 CFR Part 173, U.S. Department of Transportation regulations covering the transportation of explosives and other dangerous articles by motor, rail or water.

(9) Quick match leaders for shells shall be long enough to allow not less than 6 inches of fuse to protrude from the mortar after the shell is inserted.

(10) Staple guns shall not be permitted for securing quick match that is connected to aerial shells or mines, shells, comets, rockets and similar devices.

(11) The length of the exposed black match shall not be less than 3 inches. Minimum delay time from ignition to the tip of the exposed black match and ignition of the lift charge shall not be less than 4 seconds in order to allow the operator to retreat to safety.

(12) In the event that a shell fails to ignite in the mortar, the mortar shall be left alone for at least 30 minutes. Mortars containing misfires shall be clearly identified during the display. Lighted flashlights or boxes placed over the mortar may be used for identification.

(j) Mortars: construction.

(1) Metal mortars shall be made of steel tubing, the tensile strength of which shall be at least 40,000 pounds per square inch, or from metal of equivalent strength. Cast iron or other fragmenting types of metals shall be prohibited. The mortar shall have a smooth bore and base plate equal in thickness to the tube, welded continuously around its perimeter. Aluminum mortars may be provided with bottom plugs meeting the specifications of subdivision (5) of this subsection or they may have a bottom plate which incorporates the bottom plugs and which is approved by the State Fire Marshal. No salutes or multi-break shells shall be fired out of an aluminum mortar.

(2) Mortars limited solely to firing single break shells may be made of spiral or convolute paper tubes or may be made of HDPE. Paper tubes for 3-inch shells shall have a wall thickness of not less than 3/8 inch. Paper tubes for 4-, 5- and 6-inch shells shall have a wall thickness of not less than 1/2 inch. The cross grain tensile strength of the paper shall be at least 2,300 pounds per square inch.

(3) Mortars constructed of HDPE shall be used for firing single-break shells only. HDPE mortars may be reloaded once during the display, provided that at least 75 percent of the mortar is buried in the ground.

(4) HDPE mortars shall meet the following requirements:

(A) Tube material shall be manufactured in accordance with ASTM specifications F714-97 and ASTM DD3350-98, which may be obtained from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959;

(B) ASTM wall thickness ratings or Standard Dimensional Ratios (SDR) must be clearly marked on each tube; and

(C) HDPE mortar tubes shall comply with the following SDR rating requirements:

3-inch mortars	SDR	15.5	.226 inch
4-inch mortars	SDR	21.0	.214 inch
5-inch mortars	SDR	21.0	.265 inch
6-inch mortars	SDR	21.0	.315 inch
8-inch mortars	SDR	26.0	.332 inch
10-inch mortars	SDR	32.5	.331 inch
12-inch mortars	SDR	32.5	.392 inch

(5) All tubes shall have a base plug in good condition, the thickness of which shall not be less than one-half the inside diameter of the tube. The base plug shall be securely attached to the mortar tube by the use of nails or screws. The base plug shall be of solid one-piece construction or commercially manufactured laminate with the grain parallel to the long axis of the mortar.

(6) The minimum inside length of completed mortar assemblies shall not be less than four times their inside diameter for mortars up to 7 inches inside diameter and not less than five times their inside diameter for mortars having an inside diameter greater than 7 inches.

(7) Any damaged mortar shall not be used for firing. This prohibition shall apply to split or bulged tubes, bases, seams, or loose rivets, bolts or wooden base plugs.

(k) Mortars: setting.

(1) All mortars, except finale batteries, shall be set upon a heavy plank or timber footing buried in solidly tamped clean earth, except mortars specially set as provided in subsection (l) of this section and mortars up to 6 inches in diameter, which are placed in aboveground racks as provided in subsection (n) of this section. The plank or timber requirement may be omitted for electrically fired shows or mortars which will not be reloaded during the display.

(2) Not less than 75 percent of the mortar tube length shall be placed below the normal surface of the ground.

(3) When personnel are to be in the immediate vicinity of the mortars during an outdoor fireworks display, sand bags or other suitable protection shall be placed around the mortars up to the approximate level of the mouth of the mortar in each direction where personnel could be located.

(l) Mortars: special settings.

At locations where it would be impractical to bury mortars in suitable clean earth or where there is agreement among the local fire marshal, the senior fire officer at the scene, the operator, and the State Fire Marshal, if present at the site, that the interests of public safety are met, mortars may be set for firing in approved sand-filled containers. Heavy steel drums, plastic drums or troughs constructed in accordance with the following requirements, shall be used for setting mortars:

(1) The diameter of the drum or width of the trough shall not be less than three times the diameter of the largest mortar tube;

(2) The diameter of the drum or width of the trough shall permit spaces between all mortars and the sides of the drum or trough equal to the diameter of the largest mortar. Whenever sequentially firing more than three shells, the minimum separation of mortars shall be at least four times the diameter of such shells;

(3) The depth of the drum or trough shall permit burial in clean sand of not less than 75 percent of the length of each mortar;

(4) The space between the bottom of the mortar and the container shall be filled with heavy wood blocking at least 2 inches thick. The wood blocking requirement may be omitted where the mortars are placed over solid ground and are not being reloaded during the display;

(5) The length of the trough shall permit spaces between all mortars and the end of the trough equal to the diameter of the largest mortar;

(6) The sides, ends and bottom shall be constructed of at least 3/4-inch plywood or of 2-inch boards in good condition and nailed securely with 20d common nails. Trough panels shall be secured by 1/2-inch threaded rods, through bolts or "U"-shaped brackets located in the center and at each end;

(7) The maximum length of a trough shall be 8 feet for plywood construction, or 16 feet for 2-inch board construction. Individual troughs may be positioned in continuous rows provided that they are properly secured and stable; and

(8) After the containers are set, the mortars shall be secured at an angle determined as safe for firing;

(m) Mortars: loading.

(1) Mortars shall be cleared of burning material after firing.

(2) When loaded into mortars, shells shall be held by the thick portion of their fuses and carefully lowered into the mortar. At no time shall the operator place any part of his body over the throat of the mortar.

(n) Mortars: finale racks and aboveground racks.

(1) Finale racks and aboveground racks shall be limited to mortars with an inside diameter of not more than 6 inches, which shall be set squarely upon lumber at least 2 inches thick, the width of which shall be equal to the outside diameter of the largest mortar. The ends of the rack shall be constructed of similar material. The unit shall be boxed along both sides at the top and bottom by boards of 1-inch-by-6-inch dimension or its equivalent. The assembly shall be fastened together using screws or nails of a length that shall provide a minimum of 1 1/2-inch penetration into the holding member.

(2) Aboveground set-ups may consist of as many racks as required for the display. Each rack shall be independently set, braced and secured. Cubed bracing may be employed, provided that each rack is independently secured.

(3) Whenever possible, aboveground racks shall be set up perpendicular to the location of the general public.

(o) Marine displays: special provisions.

(1) Marine displays, which are set up and loaded in Connecticut but are to be discharged at locations outside of the state, shall be subject to the provisions of this subsection.

(2) Barges.

(A) All barges and vessels used as platforms for the discharge of fireworks shall be of sturdy, seaworthy construction and shall be provided with adequate anchor, towing and mooring lines.

(B) No barge previously used for the transportation of hazardous cargo shall be used as a discharge site for fireworks unless such hazardous cargo and its residue have been properly removed.

(C) Barges without sides shall be of sufficient height from the water to keep personnel and the fireworks safe from boarding seas.

(D) Barges with decks constructed of combustible materials shall have all exposed decking covered with at least 1 inch of clean sand.

(E) Barges shall be towed to the firing location by a tug.

(F) From the time that it leaves the dock until it returns to the loading site, the barge, during shell loading of the display, shall display warning signs on both sides reading "FIREWORKS STAY CLEAR." Signs shall be at least 3 feet wide and 2 feet high, with red lettering on a white background, and characters at least 6 inches high and 2 inches apart.

(3) Barges: set-up and location on barges.

(A) Security, separation distances and fire safety requirements shall apply only during the time that fireworks are on the display site.

(B) Except during setup, fireworks shall be stored in a locked transport vehicle or set up on the barge and shall not be left unattended. The operator shall be present

during handling and loading operations and security personnel shall be present at the dock area, except where the barge is located within a larger guarded area to which the public is denied access.

(C) No personnel other than those directly responsible for loading and discharging the display shall be allowed on the display barge, except necessary emergency and private safety watch personnel in performance of their duties.

(D) No one under the age of 18 shall be allowed on the barge or in the loading area during loading operations.

(E) No smoking shall be permitted on any vessel containing fireworks or within 50 feet of fireworks loading operations or storage facilities.

(F) Each barge shall be provided with at least two Class A fire extinguishers during shell loading of the display.

(G) Warning signs prohibiting public access and smoking shall be clearly posted on shore areas near barges and storage areas.

(H) Trucks and other motor vehicles shall not be permitted to remain parked in the waterfront loading area, except when awaiting opportunity to load or discharge cargo, supplies or passengers; when loading, discharging or storing tools, equipment or materials related to the display; or when used to set up the display.

(I) The minimum separation distances provided in subsection (c) of Section 29-357-12b shall be maintained from the time fireworks loading operations begin until the completion of the display, except for shorefront buildings associated with dock operations which have been cleared and remain vacant for the duration of the fireworks loading operations.

(4) The operator shall obtain all necessary permits and approvals from the United States Coast Guard.

(5) The operator shall ensure that the required safety fallout zone is kept clear of unauthorized personnel or craft during the time that the barge is at its firing location and before and during the display.

(Adopted effective November 24, 1999)

Sec. 29-357-15a. Transportation

Sec. 29-357-15a.1. Motor vehicle transportation

Motor vehicles used for the transportation of special effects shall comply with all applicable sections of Title 49 Code of Federal Regulations and Motor Carrier Safety Regulations including but not limited to: placarding, shipping papers, route plans, parking restrictions, vehicle attendance, emergency equipment and procedures, operator training and medical certificate. Vehicles shall be properly placarded on each side and each end as required.

(Effective December 30, 1990)

Sec. 29-357-15a.2. Parking prohibition

Vehicles containing any special effects materials shall not be parked within any building at any time. Location of exterior parking locations shall be subject to the approval of the local authority having jurisdiction.

(Effective December 30, 1990)

Sec. 29-357-15a.3. Copy of permit required

No person, firm or corporation shall transport special effects materials for display within this state unless the shipment is accompanied by a copy of the permit to display the materials being shipped.

(Effective December 30, 1990)

Sec. 29-357-15a.4. Interstate shipments

Interstate shipments of special effects materials shall be in accordance with Title 49, Code of Federal Regulations.

(Effective December 30, 1990)

Sec. 29-357-16a. Reserved

**Sale and Storage of Class B and Class C
Fireworks and Special Effects**

Sec. 29-357-17a. Applications

Sec. 29-357-17a.1. Application

(a) An application for a license under section 29-364 of the Connecticut General Statutes to engage in the business of fireworks sales at the wholesale level, dealership, or jobber of fireworks, or the storage of fireworks, under the provisions of Section 29-361 of the Connecticut General Statutes shall be made on forms furnished by the state fire marshal, to said fire marshal.

(b) An application for a license to engage in the business of special effects sales at the wholesale level, dealership, or jobber of special effects, or the storage of special effects shall be made on forms furnished by the state fire marshal, to said fire marshal.

(Effective December 30, 1990)

Sec. 29-357-17a.2. Approval of officials

Prior to submission of the application to the state fire marshal, the applicant shall submit said application to the local fire marshal of the municipality within which such business is to be located. The application shall include plans for the business location and lay out, specifically detailing the storage area. If satisfied that the business location is not in violation of any local ordinances, the fire marshal shall approve the application. Failure of the local authorities to approve the application shall be a factor considered by the state fire marshal.

(Effective December 30, 1990)

Sec. 29-357-18a. Storage

Sec. 29-357-18a.1. License

No person, firm or corporation shall keep or store fireworks or special effects in any municipality until the facility is inspected by both local and state authorities. The state fire marshal shall give final approval and licensing for the facility. A separate license shall be required for each individual storage site.

(Effective December 30, 1990)

Sec. 29-357-18a.2. Prohibited places of storage

(a) Fireworks or special effects shall not be stored or kept in any building used in whole or in part as a school, theater, church, hospital, workshop, residence, factory or any inhabited building.

(b) Fireworks or special effects shall not be stored in any building where paints, oil or varnishes are manufactured or kept.

(c) Fireworks or special effects shall not be stored in any building where any hazardous materials, matches, turpentine, resin, or gasoline are stored or kept for sale.

(d) Fireworks or special effects shall not be stored in any building where stoves or exposed flames are used.

(Effective December 30, 1990)

Sec. 29-357-18a.3. Magazine requirements

Except as herein provided all Class B and Class C fireworks and special effects shall be kept in magazines which meet the requirements of these regulations.

(Effective December 30, 1990)

Sec. 29-357-18a.4. Magazine Type Class B fireworks or special effects

Class I magazines shall be required for the storage of Class B fireworks or special effects.

(Effective December 30, 1990)

Sec. 29-357-18a.5. Magazine for Class C fireworks magazines

Type I or II shall be required for the storage of Class C fireworks.

Exception: All fireworks and special effects articles and items at places of public display shall be stored in a manner and in a place secure from fire, accidental discharge and theft and in a manner approved by the local fire marshal.

(Effective December 30, 1990)

Sec. 29-357-18a.6. Storage places to be locked

All places where fireworks or special effects are stored shall be securely locked and labeled.

(Effective December 30, 1990)

Sec. 29-357-19a. Storage magazines

Storage magazines for fireworks or special effects shall be a permanent structure, such as a building, or a mobile facility such as a box trailer.

(Effective December 30, 1990)

Sec. 29-357-19a.1. Magazine construction

Magazines shall be of either masonry or metal covered wood, or fabricated metal. Magazines are to be fire resistant, theft resistant and ventilated. They are to be supported to prevent direct contact with the ground and if less than one cubic yard in size, must be securely fastened to a fixed object. The ground around the magazine must slope away for drainage and the area must be clear of all debris, dry grass or combustibles for a distance of at least 25 feet.

(Effective December 30, 1990)

Sec. 29-357-19a.2. Type I magazine

The exterior and doors are to be constructed of not less than 1/4 inch steel and lined with at least (2) two inches of hardwood. Magazines with top openings will have lids with water resistant seals or which overlap the sides by at least one inch when in a closed position.

Type II magazine. Shall be of either masonry construction, or metal covered wood or fabricated metal. The exterior and doors shall be constructed of not less than 1/8 inch metal and lined with a non-sparking material.

Wood construction magazines shall have exterior and doors constructed of not less than (2) two inch hardwood and shall be braced at corners. They should be covered with not less than twenty gauge sheet metal.

The interior of magazines shall be lined with non-sparking material. The spark producing metal shall be exposed below the top of walls in the interior.

All nails shall be blind nailed or counter sunk.
(Effective December 30, 1990)

Sec. 29-357-19a.3. Hinges and hasps

Hinges and hasps are to be attached to doors by welding, riveting or bolting (nuts on inside of door). Hinges and hasps must be installed so that they cannot be removed when the doors are closed and locked.
(Effective December 30, 1990)

Sec. 29-357-19a.4. Locks

Each door is to be equipped with two (2) padlocks fastened in separate hasps. Padlocks must have at least five tumblers and a case hardened shackle of at least 3/8" diameter. Padlocks must be protected with not less than 1/4 inch steel hoods constructed so as to prevent sawing or lever action on the locks or hasps.
These requirements do not apply to magazine doors that are adequately secured on the inside by means of a bolt, lock or bar that cannot be actuated from the outside.
(Effective December 30, 1990)

Sec. 29-357-19a.5. Foundations

Shall be constructed of either brick or concrete, or cement block or wood posts. (If piers or posts are used, space under magazine shall be enclosed with metal.)
(Effective December 30, 1990)

Sec. 29-357-19a.6. Smoking and open flames

Smoking, matches, open flames or spark producing devices are not permitted.
(a) In any magazine.
(b) Within 50 feet of any magazine.
(Effective December 30, 1990)

Sec. 29-357-19a.7. Housekeeping

Magazines are to be kept clean, dry and free of grit, paper, empty packages, containers and rubbish. Floors are to be regularly swept. Brooms and other utensils used in the cleaning and maintenance of magazines must have non-sparking metal parts and may be kept in magazines.
(Effective December 30, 1990)

Sec. 29-357-19a.8. Storage

Containers are to be stored so that the markings are visible. Stocks of fireworks must be stored so that they can easily be counted and checked upon inspection. Containers must be closed while being stored. Tools for opening or closing containers must be of non-sparking materials, except that metal slitters may be used for opening fiberboard containers.
(Effective December 30, 1990)

Sec. 29-357-19a.9. Repair of magazines

Before repairing the inside of a magazine all fireworks are to be removed and placed in either:
(a) Another magazine or
(b) A safe distance from the magazine being repaired where they are to be properly guarded and protected until repairs have been completed.
(Effective December 30, 1990)

Sec. 29-357-19a.10. Lights

Electric lighting used in any fireworks storage magazine must meet the standard prescribed by the National Electrical Code as referenced in the Connecticut State Fire Safety Code.

All electrical switches are to be located outside the magazine and also meet the standards prescribed by the National Electrical Code.

Copies and invoices, work orders or similar documents which indicate that lighting complies with the National Electrical Code as referenced in the Connecticut State Fire Safety Code as indicated must be available for inspection by the state fire marshal or his designee.

(Effective December 30, 1990)

Sec. 29-357-20a. Location of magazines

Magazines used for the storage of fireworks shall be located in compliance with the Table of Distances #2.

(Effective December 30, 1990)

Sec. 29-357-20a.1. Process buildings

Buildings used for the preparation of fireworks for shipment shall be located a minimum of thirty feet from storage facilities.

(Effective December 30, 1990)

Sec. 29-357-20a.2. Table of Distances #2

<i>Class</i>	<i>Weight Fireworks</i>	<i>Inhabited Bldg.</i>	<i>Public Highway</i>	<i>Bulk Storage Flammables Liqs. & Gases</i>
B 1-3	Up to 1000	500	50	500
C 2-3	Up to 1000	200	50	200

An additional 100 feet separation shall be added for each additional 1000 pounds or part thereof.

NOTES:

1. Gross Weight
2. Net Weight of explosive and pyrotechnic composition and fuse only. Determined at rate of 2.5 lbs. explosive for each 20 lbs. of fireworks or part thereof.
3. Distances apply with or without barricades.

(Effective December 30, 1990)

Sec. 29-357-21a. Sales

Sales at the retail level are prohibited.

(Effective December 30, 1990)

Sec. 29-357-21a.1. Sales authorized

Sales authorized under section 29-361 of the general statutes shall be restricted to persons twenty-one (21) years of age and over and shall be subject to the record-keeping provisions of sections 29-357-22a to 29-357-22a.4 inclusive.

(Effective December 30, 1990)

Sec. 29-357-21a.2. Wholesale sales

Sales at the wholesale level are restricted to licensed fireworks or special effects shooters holding a valid public display permit, limited to the particular display.

(Effective December 30, 1990)

Sec. 29-357-21a.3. Sales to out of state residents

(a) Sales shall be shipped directly out of state and shall be subject to all packaging, labeling, and the transportation requirements of the U.S. Department of Transportation Interstate Title 49, Code of Federal Regulations.

(b) Sales to out of state residents shall be limited to states where sales, possession or use of said fireworks is not prohibited by law.

(Effective December 30, 1990)

Sec. 29-357-22a. Records

The licensee shall keep a record of all sales, purchases and inventories of fireworks.

(Effective December 30, 1990)

Sec. 29-357-22a.1. Sales of Class B fireworks

Records for the sale of Class B fireworks shall contain the following information:

- (a) Name and address of buyer.
- (b) State pyrotechnician's certificate number.
- (c) Display permit number and photocopy.
- (d) Number and types of fireworks sold.
- (e) Method of delivery or transportation.

(Effective December 30, 1990)

Sec. 29-357-22a.2. Sales of Class C fireworks

Sales of Class C fireworks for public displays in Connecticut shall be subject to all requirements of Section 29-357-22a.1.

(Effective December 30, 1990)

Sec. 29-357-22a.3. Records of sales to out of state residents shall contain the following information

- (a) Name and addresses of buyers.
- (b) Dates.
- (c) Amounts.
- (d) Method of delivery.

(Effective December 30, 1990)

Sec. 29-357-22a.4. Record retention schedule

Records shall be kept for a period of three (3) years and shall be available for inspection by the state fire marshal.

(Effective December 30, 1990)

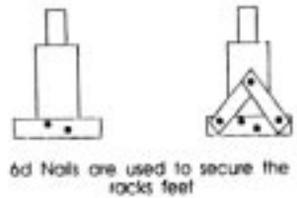
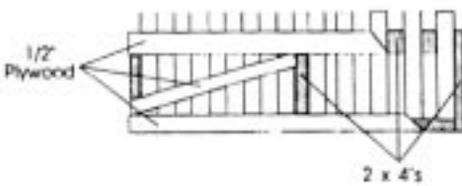
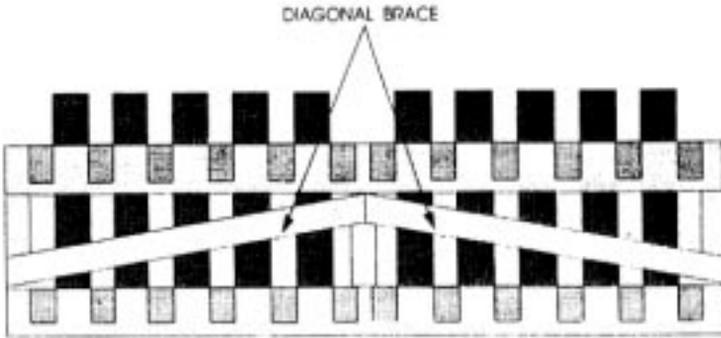
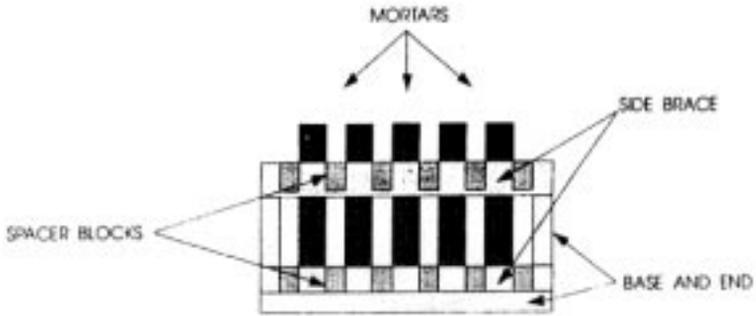
Sec. 29-357-23a. Thefts, fires, accidents

Licensee shall keep a running inventory of all fireworks and shall notify the state fire marshal of any thefts, fires or accidents occurring in connection with the storage, sale or use of fireworks. Notification shall be made immediately by phone and in writing within forty-eight (48) hours.

(Effective December 30, 1990)

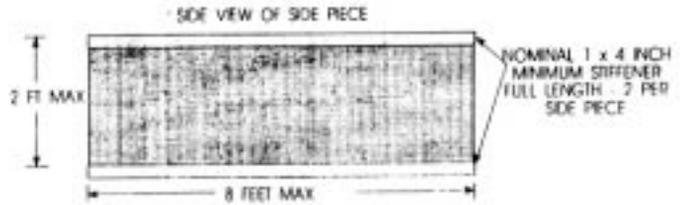
APPENDIX A

DIAGRAM OF A TYPICAL RACK

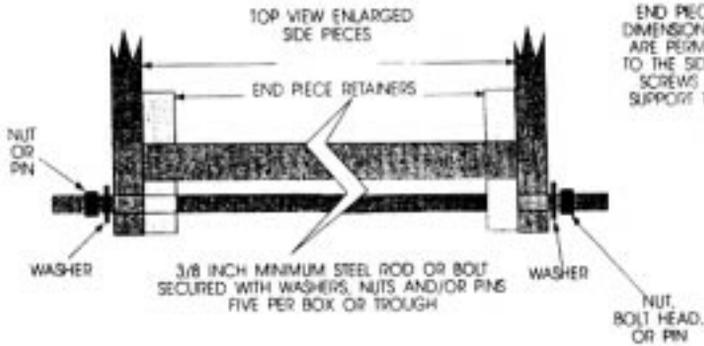


APPENDIX B

DIAGRAM OF A TYPICAL TROUGH SETTING



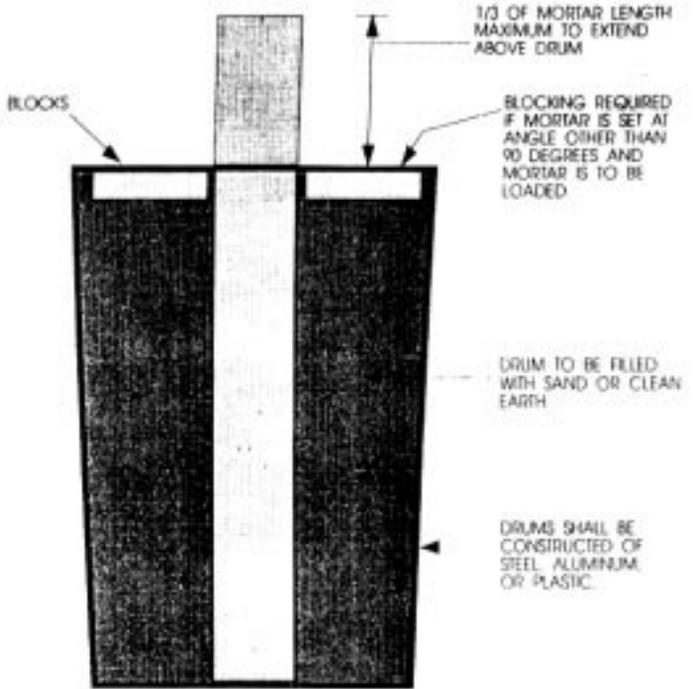
(STIFFENERS ARE NOT SHOWN FOR CLARITY)



END PIECE RETAINERS ARE DIMENSIONAL LUMBER WHICH ARE PERMANENTLY SECURED TO THE SIDE PIECES BY NAILS, SCREWS OR STAPLES AND SUPPORT THE END PIECES IN PLACE.

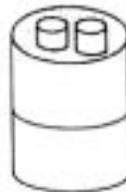
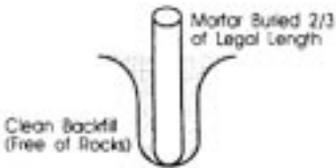
APPENDIX C

DIAGRAM OF A TYPICAL DRUM SETTING



Buried setting

Drum Setting



Mortars Covered 1/4 of Legal Length

Clean Backfill of Rock-Free Sand or Soft Dirt

Ranking (If Necessary)

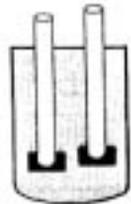


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Connecticut Model Rocketry Code

Sec. 29-367-1. The Connecticut model rocketry code: Introduction

Regulations of the Department of Public Safety, Sections 29-367-1 to 29-367-3, inclusive, shall be known as the Connecticut Model Rocketry Code.

(Adopted effective March 26, 1998)

Sec. 29-367-2. Authority having jurisdiction

For the purposes of regulations adopted by reference under Section 29-367 of the Connecticut General Statutes, “the authority having jurisdiction” means the Commissioner of Public Safety. The Commissioner of Public Safety is the authority having jurisdiction regarding the proper administration, application, interpretation, and modification of the requirements contained within Sections 29-367-1 to 29-367-3, inclusive.

(Adopted effective March 26, 1998)

Sec. 29-367-3. Adopted standard

(a) The following standard promulgated by the National Fire Protection Association (NFPA) is hereby adopted as part of Section 29-367-1 to 29-367-3, inclusive:

NFPA 1122-1997, Code for Model Rocketry;

NFPA 1125-1995, Code for the Manufacture of Model Rocket and High Power Rocket Motors;

NFPA 1127-1995, Code for High Power Rocketry.

(b) The standards promulgated by the National Fire Protection Association, (NFPA), are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, Massachusetts 02269; telephone number, 1-800-344-3555. Copies of Sections 29-367-1 to 29-367-3, inclusive, are available from the Department of Public Safety, Division of Fire, Emergency and Building Services, P.O. Box 2794, Middletown, Connecticut 06457-9294; telephone number, (860) 685-8380.

(Adopted effective March 26, 1998)

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Pyrotechnics

Sec. 29-359-1. Pyrotechnics defined

For the purposes of subsection (a) of section 29-359 of the general statutes, pyrotechnics shall have the same definition as that found in the Regulations of Connecticut State Agencies, Section 29-357-1, Definitions Applicable To The Sale And Use of Fireworks And Special Effects.

(Effective April 8, 1986)

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State Demolition Code

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State Demolition Code

Sec. 29-401-1. Definitions

Unless otherwise expressly stated, the following terms shall have these meanings:

(a) "Application" means a formal written request for a certificate of registration.

(b) "Building" means any structure built for the support, shelter or enclosure of persons, animals, chattels, or property of any kind.

(c) "Commissioner" means the commissioner of public safety or his designee.

(d) "Demolition" means any wrecking activity directed to the disassembling, dismantling, dismembering and/or razing of any structure or part thereof not exempted under the provisions of section 29-402 (c) of the Connecticut General Statutes.

(e) "Person" means an individual, a corporation or a partnership.

(f) "Structure" means an assembly of materials above or below ground level forming a construction for occupancy or use including, but not limited to, buildings, stadiums, platforms, radio towers, storage tanks, towers, trestles, piers, wharves, sheds, coal bins, bridges, boilers, shelters, and display signs. The term structure shall include a structure or any part or parts thereof.

(Effective March 26, 1991)

Sec. 29-401-2. Application and fees

(a) Applications shall be submitted to the demolition unit of the department of public safety on forms provided by the department of public safety.

(b) Initial applications shall be accompanied by a fee of five hundred dollars for a Class A certificate and, in the case of a Class B certificate, the fee shall be two hundred dollars. Annual renewal applications shall be accompanied by a fee of three hundred dollars in the case of a Class A certificate and in the case of a Class B certificate the fee shall be one hundred dollars. Renewal applications shall not be accepted after thirty days next following the expiration date of the certificate.

(c) Applications received without the required fees shall be returned to the applicant without further processing by the department.

(d) In the event that the person requesting the certificate is a partnership or corporation, a partnership authorization or a corporate resolution, as appropriate, authorizing the request for a certificate shall accompany the application.

(e) In the instance of a corporate or partnership request for a Class A certificate, no application shall be accepted unless at least one of the active officers or active partners or full-time employees of the corporation sets forth sufficient knowledge and experience to be considered an expert in the field of demolition in the opinion of the commissioner. Such expert shall have not less than five years supervisory experience in the field of demolition for a Class A certificate to be issued to the applicant. In the event that a Class B certificate is requested, then the expert must furnish proof that he has been engaged in the demolition business in a supervisory capacity for at least three years. The knowledge and experience of the proposed expert shall be set forth in the application.

(f) In the event a certificate is requested in the name of an individual, then that person must present satisfactory proof that he has been engaged in the demolition field in a supervisory capacity for at least five years for a Class A certificate or three years in the case of a Class B certificate. The knowledge and experience of such person shall be set forth in the application.

(Effective March 26, 1991)

Sec. 29-401-3. Certificates of registration

(a) Certificates shall be of two types, Class A and Class B. A Class A certificate shall be required for the demolition of any structure or part thereof which exceeds two and one-half stories in height or thirty-five feet in height. A Class B certificate shall be required for the demolition of any structure two and one-half stories or less in height or less than thirty-five feet in height. A person holding a Class A certificate shall also be permitted to perform such work as that permitted by the holder of a Class B certificate.

(b) All persons who obtain a demolition certificate shall be responsible for the performance of their servants and/or agents engaging in the demolition activity.

(c) There shall be no subcontracting of demolition operations unless the subcontractor possesses a proper demolition certificate.

(d) The business of demolition shall be carried on or executed only by the person, corporation, or partnership to whom the certificate for such demolition has been issued and no persons, corporations or partnerships shall conduct or carry on a demolition operation under a demolition certificate issued to some other person. In the instance of a corporate or partnership certificate, at least one of the active officers or active partners or full-time employees must have sufficient knowledge and experience to be considered an expert in the field of demolition in the opinion of the commissioner. The commissioner shall be notified immediately when such expert is no longer a member of or employed by the certificate holder.

(e) In the event a certificate is requested in the name of an individual, then that person must show sufficient knowledge and experience to be considered an expert in the field of demolition.

(f) The commissioner shall not issue a certificate until he finds:

(1) That the applicant has the necessary experience for the type of certificate requested.

(2) That the credit report and financial statements of the applicant show that the applicant is financially able to engage in the demolition business for which the certificate is requested.

(3) That the applicant as well as all partners of a partnership and all officers and directors of a corporation possess a reputation for honesty, integrity, and good character. In considering such reputation, the commissioner may take into account the information contained in the letters of recommendation submitted by the applicant and any other statements submitted to or obtained by the Commissioner.

(Effective March 26, 1991)

Sec. 29-401-4. Revocation of the certificate

(a) Any certificate issued pursuant to these regulations may be revoked by the commissioner after notice and opportunity for hearing if:

(1) The certificate was fraudulently obtained or erroneously issued.

(2) The holder of the certificate, any partner of a partnership or officer or director of a corporation, or that individual providing the technical expertise has violated any of the provisions of the regulations of the department of public safety, the department of environmental protection, or any local, state or federal rule or regulation concerning demolition, health, demolition, waste disposal or if the same persons failed to comply with any directive of a local municipality authorized to issue specific demolition permits.

(3) The holder of the certificate failed to carry out and conform to the provisions of Part IV of Chapter 541 of the Connecticut General Statutes.

(b) The commissioner may refuse to issue any certificate or renewal thereof for cause as set forth in section 29-402 of the Connecticut General Statutes.

(c) The revocation of a certificate shall automatically revoke any demolition permit issued by any local municipality.

(Effective March 26, 1991)

Sec. 29-401-5. Administration of the state demolition code

The local building official shall administer the state demolition code as set forth in sections 29-406 to 29-413, inclusive, of the Connecticut General Statutes.

(Effective March 26, 1991)