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Inspection of Manufacturing Facilities

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Inspection of Existing Manufacturing Occupancies

What is Changing

Tentative Adoption July 2018

- **2016 Connecticut State Fire Safety Code to the 2018 Connecticut State Fire Safety Code**
- **2016 Connecticut State Fire Prevention Code to the 2018 Connecticut State Fire Prevention Code**

Inspection of Existing Manufacturing Occupancies History 2005

- 2005 Connecticut Fire Safety Code Adopted
- Chapter 40 Industrial Occupancies
- 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.

History 2009

- Amendments to the 2005 Connecticut Fire Safety Code.
- Frequency of Inspections was changed for F-1 and F-2 Occupancies to every 4 years.
- No Change to the exclusion of Manufacturing Occupancies.

History 2010

- Adoption of the 2010 Connecticut Fire Prevention Code
effective July 1,2010

Adopting Portions of NFPA 1 (2003 edition)
with the Connecticut Amendments

HISTORY 2015

- Adoption of the 2015 Connecticut Fire Prevention Code
effective May 7,2015

Adopting Portions of NFPA 1 (2012 edition)
with the Connecticut Amendment

2018

- Tentative Adoption of the 2018 Connecticut State Fire Safety Code referencing portions of the IFC (2015 edition) and NFPA 101 (2015 edition) with the Connecticut Amendments.
- Tentative Adoption of the 2018 Connecticut State Fire Prevention Code referencing portions of NFPA 1 (2015 edition) with the Connecticut Amendments

Manufacturing; The business of making products or goods in a factory.

- NFPA 101 ***2015 Edition Chapter 40 Industrial Occupancies***
- ***40.1.1.4 "Industrial occupancies shall include Factories making products of all kinds and operations such as processing ,assembling, mixing, packaging, finishing or decorating, repairing , and similar operations."***

Connecticut Amendment

- **(Amd) 40.1.1.1 The requirements of this chapter shall apply to existing industrial occupancies.**

Sub-classification of Industrial Occupancies

- General Industrial Occupancy
(40.1.2.1.1)
- Special- Purpose Industrial Occupancy
(40.1.2.1.2)
- High-Hazard Industrial Occupancy
(40.1.2.1.3)

Connecticut Amendment

- **(Amd) 40.1.2.1.3 High –Hazard Industrial Occupancy**
- **High-hazard industrial occupancies shall include all of the following:**
 - (1) Industrial occupancies that conduct industrial operations that use high-hazard materials or processes or house high-hazard content in excess of the maximum allowable quantities (MAQ) as permitted by the Connecticut State Fire Prevention Code.(see Chapter 60)
 - (2) the basis for overall Industrial occupancies in which incidental high- hazard operations in low- or ordinary – hazard occupancies that are protected in accordance with Section 8.7 and 40.3.2 are not required to be the basis for overall occupancy classification .

Means of Egress

- **40.2.1.1** Each Means of Egress shall be in accordance with the Applicable portions of Chapter 7
- **40.2.1.2 Normally unoccupied** utility chases **that are secured** to unauthorized access and are used **exclusively** for routing of electrical, mechanical, or plumbing equipment shall not be required to comply with the provisions of chapter 7.

Excerpt from Chapter 7

- **Table 7.3.1.2** Occupancy Load Factors

Industrial Use:

General and High Hazard industrial
100 sq. ft./person (gross)

Special-purpose industrial (Not applicable)

Means of Egress Components

- **40.2.2.1 Components of means of egress limited to 40.2.2.2 through 40.2.2.13**

Means of Egress Components Doors

- **40.2.2.2.1 Doors complying with 7.2.1 Shall be permitted.**

Means of Egress Components Doors

- **40.2.2.2.2** Delayed egress locks complying with 7.2.1.6.1 shall be permitted.

Means of Egress Components Doors

- **40.2.2.2.3** Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted.

Means of Egress Components Doors

- **40.2.2.2.4** Locks in accordance with 7.2.1.6.3 shall be permitted.

Means of Egress Components Doors

- **40.2.2.2.5** Approved existing horizontal-sliding fire doors shall be permitted in a means of egress where they comply with all of the following conditions:
 - (1) They are held open by fusible links.
 - (2) The fusible links are rated at not less than 165°F (74°C).
 - (3) The fusible links are located not more than 10' (3050 mm) above the floor.
 - (4) The fusible links are in immediate proximity of the door opening.
 - (5) The fusible links are not located above a ceiling.
 - (6) The door is not credited with providing any protection under this *Code*.

Means of Egress Components

Stairs

- **40.2.2.3.1** Stairs shall comply with 7.2.2 and shall be permitted to be modified by any of the following:
 - (1) Noncombustible grated stair treads and noncombustible grated landing floors shall be permitted.
 - (2) Industrial equipment access stairs in accordance with 40.2.5.2 shall be permitted.

Means of Egress Components

Stairs

- **40.2.2.3.2** Spiral stairs complying with 7.2.2.2.3 shall be permitted.

Means of Egress Components Stairs

- **40.2.2.3.3** Existing winders complying with 7.2.2.2.4. shall be permitted.

Means of Egress Components Smoke proof Enclosures

- **40.2.2.4 Smoke proof Enclosures**
Smoke proof enclosures complying with 7.2.3 shall be permitted.

Means of Egress Components

Horizontal Exits

- **40.2.2.5.1** Horizontal exits complying with 7.2.4 shall be permitted.
- **40.2.2.5.2** In horizontal exits where the opening is protected by a fire door assembly on each side of the wall in which it is located, one fire door shall be of the swing type, as provided in 7.2.4.3.8, and the other shall be permitted to be an automatic-sliding fire door that shall be kept open whenever the building is occupied.

Means of Egress Components

Ramps

- **40.2.2.6 Ramps**
Ramps complying with any of the following shall be permitted:
 - (1) Ramps in accordance with 7.2.5
 - (2) Industrial equipment access in accordance with 40.2.5.2.

Means of Egress Components Exit Passageways

- **40.2.2.7** Exit Passageways complying with 7.2.6 shall be permitted.

Means of Egress Components Escalators and Moving Walks

- **40.2.2.8** Existing previously approved escalators and moving walks complying with 7.2.7 and located within the means of egress shall be permitted.

Means of Egress Components

Fire Escape Stairs

- **40.2.2.9** Existing fire escape stairs complying with 7.2.8 shall be permitted.

Means of Egress Components

40.2.2.10 Fire Escape Ladders

- **40.2.2.10.1** Fire Escape Ladders complying with 7.2.9 shall be permitted.
- **40.2.2.10.2** Fixed industrial stairs in accordance with the minimum requirements for fixed stairs and stair railing systems in ANSI/ASSE A1264.1, *Safety Requirements for workplace walking/ Working Surfaces and their Access; Workplace floors, Wall and Roof openings; Stairs and Guard Rail Systems, Shall be permitted where Fire Escape ladders are permitted in accordance with 7.2.9.1*

Means of Egress Components

40.2.2.1 Slide Escapes

- **40.2.2.11.1** Approved Slide escapes complying with 7.2.10 shall be permitted as components in 100 percent of the required means of egress for both new and existing high hazard industrial occupancies.
- **40.2.2.11.2** Slide escapes permitted by 40.2.2.11.1 shall be counted as a means of egress only where regularly used in emergency egress drills to ensure that the occupants are familiar with use through practice.

Means of Egress Components

Alternating Tread Devices

- **40.2.2.12** Alternating Tread Devices complying with 7.2.11 shall be permitted.

40.2.4 Number of Means of Egress

- **Connecticut Amendment**
- **(Amd) 40.2.4.1 The number of means of egress shall comply with Section 40.2.4.1.1, Section 40.2.4.1.2, or Section 40.2.4.1.3.**
- **40.2.4.1.1 Not less than two means of egress shall be provided from every story or section, and not less than one exit shall be reached without traversing another story.**

40.2.4 Number of Means of Egress

- **Connecticut Amendment**
- **(Amd) 40.2.4.1.2 Single Means of Egress shall be permitted from any story or section in low and ordinary hazard industrial occupancies, provided that the following limits are not exceeded:**
 - (1) One Story, 30 occupants and 100 feet maximum travel distance.**
 - (2) Two Story, 30 occupants and 75 feet maximum travel distance.**

Number of Means of Egress

7.11 Special Provisions for Occupancies with High Hazard Contents

- 7.11.1 Where the contents are classified as high hazard, exits shall be provided and arranged to allow all occupants to escape from the building or structure, or from the hazardous area therefore, to the outside or to a place of safety with a travel distance of not more than 75 ft. measured as required in 7.6.1 unless otherwise provided in 7.11.2 . (7.11.2 *applies to storage*)

7.11 Special Provisions for Occupancies with High Hazard Contents

- 7.11.3 Egress Capacity for High Hazard Content Areas shall be based on 0.7 in./person for stairs or 0.4 in./person for level components and ramps in accordance with 7.3.3.1

7.11 Special Provisions for Occupancies with High Hazard Contents

- 7.11.4 No less than two means of egress shall be provided from each building or hazardous thereof, unless all of the following criteria are met:
 - (1) Rooms or spaces do not exceed 200 sq./ft.
 - (2) Rooms or spaces have an occupant load not exceeding three persons.
 - (3) Rooms or spaces have a travel distance to the room door not exceeding 25 Feet.

7.11 Special Provisions for Occupancies with High Hazard Contents

- **7.11.5** Means of Egress, for rooms or spaces other than those that meet the criteria of 7.11.4 (1) through (3), shall be arranged so there are no dead ends in corridors.

7.11 Special Provisions for Occupancies with High Hazard Contents

- **7.11.6** Doors serving high hazard content areas with occupant loads in excess of five shall be permitted to be provided with a latch or lock only if the latch or lock is panic hardware or fire exit hardware complying with 7.1.1.7.

40.2.5 Arrangement of Means of Egress

- **Connecticut Amendment**
- **(Amd) 40.2.5.1 General.** Means of Egress, arranged in accordance with Section 7.5, shall not exceed that provided by Table 40.2.5.1, **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.**
>>>>>>>>>

Table 40.2.5.1

	General Ind.	Special-Purpose	High Hazard
Dead-End Corridor Protected by Auto Sprinkler System**	50 ft.	50 ft.	Prohibited except as permitted by 7.11.4
Not Protected by Auto Sprinkler **	50 ft.	50 ft.	Prohibited except as permitted by 7.11.4

** (abbreviated) Read entire table 40.2.5.1

Table 40.2.5.1

	General Ind.	Special-Purpose	High Hazard
Common Path of Travel Protected w/Auto Sprinkler system**	100 ft.	100 ft.	Prohibited, except as permitted by 7.11.4
Not Protected with Auto Sprinkler System Throughout **	50 ft.	50 ft.	Prohibited, except as permitted by 7.11.4

** (abbreviated) Read entire Table 40.2.5.1

40.2.5.3 Industrial Equipment Access

- 40.2.5.3.1 Industrial Equipment access doors, walkways, platforms ,ramps and stairs that serve as a component of a means of egress from the involved equipment shall be permitted in accordance with the applicable provisions of Chapter 7 as modified by **Table 40.2.5.3.1.**
- 40.2.5.3.2 Any means of egress component permitted by 40.2.5.3.1 shall serve no more than 20 people.

40.2.5.3 Industrial Equipment Access (Continued)

Table 40.2.5.3.1 Industrial Equipment Dimensional Criteria

- Minimum horizontal dimension of any walkway, landing or platform>>>> **22 in. clear**
- Minimum stair or ramp width>>>> **22 in. clear**
- Minimum tread width >>>>>>>> **22 in. clear**
- Minimum tread depth >>>>>>>> **10 in.**
- Maximum riser height >>>>>>>> **9 in.**

Table 40.2.6.1 Maximum Travel Distances to Exits

- Protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1.(1)

General Industrial Occupancy 250 ft. *

*In one story buildings, a travel distance of 400 ft. is permitted, provided that a performance-based analysis demonstrates that safe egress can be accomplished.

Special Purpose Industrial Occupancy 400 ft.

High Hazard Industrial Occupancy 75 ft.

Table 40.2.6.1 Maximum Travel Distances to Exits

Not Protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1.(1)

General Industrial Occupancy
200 ft.

Special Purpose Industrial Occupancy
300 ft.

High Hazard Industrial Occupancy
Not Permitted

40.2.6 Travel Distance to Exits (Continued)

- 40.2.6.2 Power Generation Buildings.
- Buildings of noncombustible construction used exclusively for the enclosure of steam generators, steam turbines, gas turbines, heat recovery generators, and flue gas treatment equipment shall be permitted to have a maximum travel distance of 400 ft., where all special hazards are protected by approved automatic suppression systems in accordance with one or more of the following standards , as applicable:

(continued)

40.2.6. Travel Distance to Exits (Continued)

- (1) NFPA 11, Standard for Low-,Medium-, and High Expansion Foam
- (2) NFPA 12, Standard on Carbon Dioxide Extinguishing Systems
- (3) NFPA 13, Standard for the Installation of Sprinkler Systems
- (4) NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection

(continued)

40.2.6 Travel Distance to Exits (Continued)

- (5) NFPA 16, Standard for the Installation of Foam-Water Sprinklers and Foam-Water Spray Systems
- (6) NFPA 17, Standard for Dry Chemical Extinguishing Systems
- (7) NFPA 750, Standard on Water Mist Fire Protection Systems
- (8) NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems

40.2.7 Discharge from Exits

- Discharge from Exits Shall be in accordance with **Section 7.7**

40.2.8 Illumination of Means of Egress

- Means of Egress shall be illuminated in accordance with **Section 7.8** or with natural lighting that provides the required levels of illumination in structures occupied only during **daylight hours**.

40.2.9 Emergency Lighting.

- 40.2.9.1 Emergency lighting shall be provided in accordance with **Section 7.9**.
- 40.2.9.2 Emergency Lighting **Shall not** be required for any of the following:
 - (1) Special-purpose industrial occupancies **without routine** human occupancies.
 - (2) Structures occupied only during daylight hours, with skylights or windows arranged to provide the required illumination on **all portions of the means of egress** during such hours.

40.2.10 Marking of the Means of Egress

- Means of Egress shall have signs in accordance with **Section 7.10**

40.2.11 Special Means of Egress Features

- 40.2.11.1 Reserved
- 40.2.11.2 Lockups.
 - 40.2.11.2.1 Lockups in new industrial occupancies shall comply with the requirements of 22.4.5
 - **40.2.11.2.2 Lockups in existing industrial occupancies, other than approved existing lockups, shall comply with the requirements of 23.4.5**

40.3 Protection

- **40.3.1 Protection of Vertical openings**

All vertical openings shall be protected in accordance with **Section 8.6**, unless otherwise permitted by one of the following:

(1) In special purpose and high-hazard industrial

Occupancies where unprotected vertical openings exist and are necessary to manufacturing operations, such openings shall be permitted beyond the specific limits, provided that every floor level has direct access to one or more enclosed stair or other exit protected against obstruction by any fire or smoke in the open areas connected by the unprotected vertical openings.

(continued)

40.3.1 Protection of Vertical Openings (continued)

40.3.1

- (2) Approved existing open stairs, existing open ramps, and existing escalators shall be permitted where connecting only two floor levels.
- (3) Approved, existing, unprotected vertical openings in building with low- or ordinary-hazard contents that are protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1) shall be permitted, provided that the following conditions exist:

(continued)

40.3.1 Protection of Vertical Openings (continued)

40.3.1(3)

(a) The vertical opening does not serve as a means of egress.

(b) All required exits consist of outside stairs in accordance with 7.2.2, smoke proof enclosures in accordance with 7.2.3, or horizontal exits in accordance with 7.2.4.

(continued)

40.3.1 Protection of Vertical Openings (continued)

- (4) Vertical openings in accordance with 8.6.9.1 shall be permitted.
- (5) Vertical openings in accordance with 8.6.9.2 shall be permitted.

40.3.2 Protection from Hazards

- 40.3.2.1 All High Hazard industrial occupancies, operations, or processes shall have approved, supervised automatic extinguishing system in accordance with Section 9.7 or other protection appropriate to the particular hazard, such as explosion venting or suppression.

(continued)

40.3.2 Protection from Hazards (continued)

- 40.3.2.2 Protection in accordance with 40.3.2.1 shall be provided for any area subject to an explosion hazard in order to minimize danger to occupants in case of fire or other emergency before they have time to use the exits to escape.

(continued)

40.3.2 Protection from Hazards (continued)

- 40.3.2.3 Activation of the fire-extinguishing or suppression system required by 40.3.2.1 shall initiate the required building fire alarm system in accordance with 40.3.4.3.4
- 40.3.2.4 Hazardous areas in industrial occupancies protected by an approved automatic extinguishing system in accordance with Section 9.7 shall be exempt from the smoke-resisting enclosure requirement of 8.7.1.2.

(continued)

40.3.2 Protection of Hazards (continued)

- 40.3.2.5 Commercial cooking equipment shall be protected in accordance with NFPA 96 *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*
- *(See Section 9.2.3.)*

40.3.3 Interior Finish

- 40.3.3.1 **General.** Interior finish shall be in accordance with Section 10.2.
- 40.3.3.2 **Interior Wall and Ceiling Finishes**
Interior wall and ceiling finish material complying with Section 10.2 shall be Class A, Class B, or Class C in operating areas and shall be **as required by 7.1.4** in exit enclosures.

(continued)

40.3.3 Interior Finishes (continued)

- **40.3.3.3 Interior Floor Finish**
 - **40.3.3.3.1** Interior Floor Finish in exit enclosures and in exit access corridors shall be Class 1 or Class 2 in accordance with 10.2.7.4.
 - **40.3.3.3.2** Interior Floor finish in areas other than those specified in 40.3.3.3.1 shall not be required to comply with Section 10.2.7.

40.3.4 Detection, Alarm, and Communication Systems

- **40.3.4.1 General**, A fire alarm system shall be required in accordance with section 9.6 for industrial occupancies, unless the **total occupancy load** of the building is **under 100 persons and unless ,of these, fewer than 25 persons are above or below the level of exit discharge.**

(continued)

40.3.4 Detection, Alarm, and Communications (continued)

- 40.3.4.2 Initiation. Initiation of the required fire alarm system shall be by any of the following means:
 - (1) Manual means in accordance with 9.6.2.1(1)
 - (2) Approved automatic fire detection system in accordance with 9.6.2.1(2) throughout the building , plus a minimum of one manual fire alarm box in accordance with 9.6.2.6

(continued)

40.3.4.2 Initiation (continued)

- (3) Approved, supervised automatic sprinkler system in accordance with 9.6.2.1(3) throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6.

40.3.4.3 Notification

- 40.3.4.3.1 The fire alarm system shall meet one of the following criteria:
 - (1) It shall provide occupant notification in accordance with 9.6.3.
 - (2) It shall sound an audible and visual signal in a constantly attended location for the purposes of initiating emergency action.

(continued)

40.3.4.3 Notification (continued)

- 40.3.4.3.2 Positive alarm sequencing in accordance with 9.6.3.4 shall be permitted.
- 40.3.4.3.3 Existing pre-signal systems in accordance with 9.6.3.3 shall be permitted.
- 40.3.4.3.4 high hazard industrial occupancies, as described in 40.1.2.1.3, the required fire alarm system shall automatically initiate an occupant evacuation alarm signal in accordance with 9.6.3.

40.3 Protection

- **Connecticut Amendment**
- **(Amd) 40.3.5 Automatic sprinkler protection shall be provided as required by Section 9.7.1.6 (Reserved)**
- 40.3.6 Corridors. The provisions of 7.1.3.1 shall not apply.

40.4 Special Provisions

- **40.4.1 Limited-Access or Underground Structures.** Limited Access or underground structures shall comply with Section 11.7.
- **40.4.2 High-Rise Buildings.**
- **Connecticut Amendment**
- **(Amd) 40.4.2.1 High-rise Buildings. Automatic sprinkler protection shall also be provided as required by Section 9.7.1.6 and Section 11.8.3.1.**

40.4.2.2 The provisions of 11.8.5.2.4(2) for jockey pumps and 11.8.5.2.4(3) for air compressors serving dry pipe and pre-action systems shall not apply to special-purpose industrial occupancies.
(continued)

40.4 Special Provisions (continued)

- **40.4.3 Alcohol-Based Hand-Rub Dispensers**
Alcohol-based hand-rub dispensers in accordance with 8.7.3.3 shall be permitted.

40.5 Building Services.

- 40.5.1 Utilities. Utilities shall comply with the provision of Section 9.1.
- 40.5.2 Heating, Ventilation, and Air-Conditioning Heating ventilation and air-conditioning equipment shall comply with the provisions of Section 9.2.
- 40.5.3 Elevators, Escalators, and Conveyors. Elevators , escalators and conveyors shall comply with the provisions of Section 9.4

(continued)

40.5 Building Services (continued)

- **40.5.4 Waste Chutes, Incinerators, and Laundry Chutes.** Shall comply with the provisions of Section 9.5

40.6 Special Provisions for Aircraft Servicing Hangers

- 40.6.1 The Requirements of Section 40.1 through 40.5 shall be met, except as modified by 40.6.2 through 40.6.4.
- 40.6.2 The Requirements for exits from aircraft servicing areas shall comply with 40.6.2.1 through 40.6.2.4.
- 40.6.2.1 There shall be not less than two means of egress from each aircraft servicing area.

(continued)

40.6 Special Provisions for Aircraft Servicing Hangers (continued)

- 40.6.2.2 Exits from aircraft servicing areas shall be provided at intervals not exceeding 150 feet on all **exterior walls**.
- **40.6.2.3** Where horizontal exits are provided, doors shall be provided in the horizontal exit fire barrier at intervals not exceeding 100 ft.
- **40.6.2.4** Where dwarf, or “smash,” doors are provided in doors that accommodate aircraft, such doors shall be permitted for compliance with 40.6.2.1 through 40.6.2.3.

(continued)

40.6 Special Provisions for Aircraft Servicing Hangars (continued)

- 40.6.3 Means of Egress from mezzanine floors in aircraft serving areas shall be arranged so that the travel distance to the nearest exit from any point on the mezzanine does not exceed 75 ft., and such means of egress shall lead directly to a properly enclosed stair discharging directly to the exterior, to a suitable cutoff area, or to outside stairs.
- 40.6.4 Dead ends shall not exceed 50 ft. for other than high-hazard content areas and shall not be permitted for high hazard-hazard content areas.

40.7 Operating Features

Connecticut Amendment

(Del) 40.7 Operating Features. Delete Section.

Excerpts from the Connecticut State Fire Prevention Code Chapter 10 General Safety Requirements

- 10.18 Storage of Combustible Materials
- 10.18.4 Combustible material shall not be stored in exits.
- 10.18.5 Equipment Rooms.
- 18.5.1 Combustible material shall not be stored in boiler rooms, mechanical rooms, and electrical rooms.
- 18.5.2 Materials and supplies for the operation and maintenance of the **equipment in the room** shall be permitted.

Excerpts from the Connecticut State Fire Prevention Code

- Connecticut Amendments
- **(Add) 3.3.183.14.1 In-home Industrial Occupancies other than High Hazard Industrial Occupancies. Customary in-home industrial occupancies, located within a single-family dwelling premises, in which processing, assembling, mixing, packaging, finishing, decorating or repair operations are conducted and employ a maximum of one employee within the dwelling in addition to the residents of the dwelling premises, shall be classified as a single-family Residential occupancy.**

Excerpts from the Connecticut State Fire Prevention Code

- **Connecticut Amendments**
- **(Amd) 4.5.8.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire resistive construction, or any other feature is required for compliance the provisions of this code, the CSFSC or the SBC, such device, equipment, system, condition, arrangement, level of protection or other feature shall be continuously maintained in accordance with the applicable NFPA requirements.**

Excerpts from the Connecticut State Fire Prevention Code Chapter 11 Building Services

- 11.1 Electrical Fire Safety
- 11.1.1 General. Section 11.1 shall apply to permanent and temporary electrical appliances , equipment , fixtures and wiring.
 - 11.1.5.1 Extension cords shall be plugged directly into an approved receptacle, power tap, or multiplug adapter and shall, except for approved multiplug extension cords, serve only one portable appliance.

Excerpts from the Connecticut State Fire Prevention Code Chapter 11 Building Services

- 11.1.5.2 The ampacity of extension cords shall not be less than the rated capacity of the **portable** appliance supplied by the cord.
- 11.1.5.3 The extension cords shall be maintained in good condition without splices, deterioration, or damage.
- 11.1.5.4 Extension cords shall be grounded when servicing grounded **portable** appliances.

Excerpts from the Connecticut State Fire Prevention Code Chapter 11 Building Services

- 11.1.5.5 Extension cords and flexible cords shall not be affixed to structures ; extend through walls, ceilings, or floors, or under doors or floor coverings; or be subject to environmental or physical damage.
- 11.1.5.6 Extension cords shall not be used as a substitute for permanent wiring.

Excerpts from the Connecticut State Fire Safety Code Chapter 11 Building Services

- **Connecticut Amendments:**
- **(Amd)11.2.2 Ventilation or Heat-Producing Equipment. Ventilation or Heat-Producing equipment shall be in accordance with the CSFSC. Approved existing installations may be continued in service.**
- **(Del) 11.3.1 Fire Fighter's Emergency Operations. (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)**

Excerpts from the Connecticut State Fire Safety Code Chapter 12 Features of Fire Protection

- 12.3.3 Maintenance of Fire-Resistive Construction
- 12.3.3.1 Required fire resistive construction, including fire barriers, fire walls, exterior walls due to location on the property, fire-resistive requirement based on type of construction, draft stop partitions, and roof coverings, shall be maintained and shall be properly repaired, restored, or replaced where damaged, altered, breached, penetrated, removed or improperly installed.

Excerpts from the Connecticut State Fire Prevention Code Chapter 12 Features of Fire Protection

- 12.4 Fire Doors and other Opening Protection
- 12.5 Interior Finish
- 12.9 Smoke Barriers

Excerpts from the Connecticut State Fire Prevention Code Chapter 13 Fire Protection Systems

- **Connecticut Amendments**
- **(AMD) 13.6.1.2 Where Required. Fire Extinguishers shall be provided where required by this Code as specified in Table 13.6.1.2 and the referenced codes and standard listed in chapter 2 of this code, as well as where required by the Connecticut State Fire Safety Code and its referenced codes and standards.**

Excerpts from the Connecticut State Fire Prevention Code Chapter 13 Fire Protection Systems

- **Connecticut Amendments**
- **Table 13.6.1.2 Portable Fire Extinguishers Required**
- **Industrial Group F Occupancy**
- **(New) Required (Existing) Not Required**

- **Industrial Group H Occupancies**
- **(New) Required (Existing) Required**

Excerpts from the Connecticut State Fire Prevention Code Chapter 13 Fire Protection Systems

- **Connecticut Amendment**
- **(Add) 13.6.1.2.1 Portable Fire extinguishers shall be required in all occupancies, outside and immediately adjacent to the entrance to all special hazardous areas except general storage areas. If the only entrance to a special hazardous area is from the exterior of the building, the fire extinguisher may be located just inside the entrance door.**

Excerpts from the Connecticut State Fire Prevention Code Chapter 13 Fire Protection Systems

- **Connecticut Amendments**
- **(Add) Portable fire extinguishers shall be required where commercial cooking equipment is utilized.**

Fire Prevention Code Chapter 14 Means of Egress

- **Connecticut Amendment**
- **(Amd) 14.4.1 Maintenance. Means of egress and primary means of escape shall be continuously maintained free of all obstruction or impediments to full instant use in the case of fire or other emergency.**

Connecticut State Fire Prevention Code Chapter 19 Combustible Waste and Refuse

- 19.2.1.4.1 Areas containing dumpsters or other containers shall be protected by an approved automatic sprinkler system and enclosed with a fire resistance rating of 1 hour.
- 19.2.1.4.2 Structures of Type I and Type II fire-resistive construction used for dumpster or container storage shall be located not less than 10 feet (3 m) from openings or other buildings.

Connecticut State Fire Prevention Code Chapter 20 Occupancy Fire Safety

- **Connecticut Amendments**
- **(Amd) 20.14 Industrial Occupancies Including Factory Industrial Groups F-1 and F-2.**
- **20.14.1 Application. New and existing industrial occupancies shall comply with section 20.14 and NFPA 101.**
- **20.14.2 Permits. Permits , where required, shall comply with section 1.12**

Connecticut State Fire Prevention Code Chapter 20 Occupant Fire Safety

- **20.14.3 Interior Finish.**
- **20.14.3.1 General.** Interior Finish shall be in accordance with section 12.5 [NFPA 101-40.3.3.1].
- **20.14.3.2 Interior Wall and Ceiling Finishes.** Interior Wall and Ceiling Finish materials complying with Section 12.5 shall be Class A, Class B, or Class C in operating areas and shall be as required by 7.1.4 of NFPA 101 in exit enclosures [NFPA 101- 40.3.3.2].

Connecticut State Fire Prevention Code Chapter 20 Occupancy Fire Safety

- **20.14.3.3 Interior Floor Finish**
- **20.14.3.3.1** Interior Floor Finish in exit enclosures and in exit access corridors shall be Class I or Class II in accordance with 12.5.8.4 [NFPA 101- 40.3.3.3.1].
- **20.14.3.3.2** Interior Floor finish in areas other than those specified in 20.14.3.3.1 shall not be required to comply with 12.5.8 [NFPA 101-40.3.3.3.2].

Connecticut State Fire Prevention Code Chapter 20 Occupancy Safety

- **Connecticut Amendments**
- **(Add) 20.14.4 Group H-5 Occupancies.** Group H-5 occupancies shall comply with the requirements of section 20.14.4.1 to 20.14.4.4, inclusive, of this code and the CSFSC.
- **(Add) 20.14.4.1 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 material (HPM) stored, handled, and used, location of shut off valves for HPM supply piping, emergency telephone locations and location of exits.

Connecticut State Fire Prevention Code Chapter 20 Occupancy Fire Safety

- **Connecticut Amendments**
- **(Add) 20.14.4.2 Plan updating.** The Plans and diagrams required by section 20.14.4.1 of this code shall be maintained up to date and the fire code official and fire department shall be informed of all major changes.
- **(Add) 20.14.4.3 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.

(continued)

Connecticut State Fire Prevention Code
Chapter 20 Occupancy Safety

- (Add) 20.14.4.3 (Continued)
- 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 shift shall be designated.

Connecticut State Fire Prevention Code Chapter
20 Occupancy Fire Safety

- **Connecticut Amendments**
- **(Add) 20.14.4.4 Emergency Drills.** Each on-site emergency response team shall conduct emergency drills on a regular basis, but not less than once every three months, and maintain records of drills conducted.

Connecticut State Fire Prevention Code other Related Chapters

- Chapter 43 **Spraying, Dipping , and Coating using Flammable or Combustible Materials**
- Chapter 44 **Solvent Extraction**
- Chapter 45 **Combustible Fibers**
- Chapter 50 **Commercial Cooking**
- Chapter 51 **Industrial Ovens and Furnaces**
- Chapter 53 **Mechanical Refrigeration**

Connecticut State Fire Prevention Code Other Related Chapters

- Chapter 60 **Hazardous Materials**
- Chapter 61 **Aerosol Products**
- Chapter 63 **Compressed Gases and Cryogenic Fluids**
- Chapter 64 **Corrosive Solids and Liquids (>Chapter 60)**
- Chapter 66 **Flammable and Combustible Liquids**

Connecticut State Fire Prevention Code Other Related Chapters

- Chapter 67 **Flammable Solids (> Chapter 60)**
- Chapter 68 **Highly Toxic and Toxic Solids and Liquids (> Chapter 60)**
- Chapter 69 **Liquefied Petroleum Gases and Liquefied Natural Gases (> Chapter 58 & 60.1 thru 60.4)**
- Chapter 70 **Oxidizer Solids and Liquids (> Chapter 60)**
- Chapter 71 **Pyrophoric Solids and Liquids (>Chapter 60)**

Connecticut State Fire Prevention Code Other Related Chapters

- Chapter 72 **Unstable (Reactive) Solids and Liquids (>Chapter 60)**
- Chapter 73 **Water-Reactive Solids and Liquids (>Chapter 60)**
- Chapter 74 **Ammonium Nitrate (>Chapter 60)**
- Chapter 75 **Organic Peroxides Solid and Liquids (>Chapter 60)**

Connecticut State Fire Prevention Code

- The Previous Listed Related Chapters are not all inclusive. Depending upon the Manufacturing Facility operations, other Chapters may be applicable. During Your Inspection you need to be observant and ask questions so you can be knowledgeable about the operations and processes in order so you can apply the code properly.
- Remember to Read the Code completely !

Inspection

Try to work with the facility :

**Owner
Fire Brigade
Fire Dept.
Safety Dept.
Loss Prevention Dept.
Facility / Maintenance Dept.**

They should all have the Same Common Goal

- **Worker Safety**
- **Loss Prevention**
- **Business continuity**

Inspection

- Have Permission or Administrative Warrant
- Request an Escort with knowledge of the facility
Follow facility Safety Rules
- Ask Question
- Photography (ask permission)
Trade Secrets
Government Top Secrets

Question ???