

**34.9.3 Storage Arrangement.** The floor load design shall take into account the added weight of water that could be absorbed by the commodity during fire-fighting operations.

**34.10 Storage of Idle Pallets.**

**34.10.1\* General.** Idle pallets shall be stored outside or in a separate building designated for pallet storage, unless permitted by 34.10.2.

**34.10.2 Indoor Storage.** Idle pallets shall be permitted to be stored in a building used for other storage or other purpose if the building is sprinklered in accordance with Section 13.3.

**34.10.3\* Outdoor Storage.** Idle pallets stored outside shall be stored in accordance with Table 34.10.3(a) and Table 34.10.3(b).

**34.10.4** Idle pallet stacks shall not exceed 15 ft (4.6 m) in height nor shall cover an area of greater than 400 ft<sup>2</sup> (37 m<sup>2</sup>). Pallet stacks shall be arranged to form stable piles. A distance of not less than 8 ft (2.4 m) shall separate stacks. Piles shall be no closer than 8 ft (2.4 m) to any property line.

**Chapter 35 Animal Housing Facilities**

**35.1 General.** Animal housing facilities shall comply with NFPA 150, *Standard on Fire and Life Safety in Animal Housing Facilities*, and this chapter.

**35.2 Permits.** Permits, where required, shall comply with Section 1.12.

**Table 34.10.3(a) Required Clearance Between Outside Idle Pallet Storage and Other Yard Storage**

Pile Size	Minimum Distance	
	ft	m
Under 50 pallets	20	6
50–200 pallets	30	9
Over 200 pallets	50	15

**Table 34.10.3(b) Required Clearance Between Outside Idle Pallet Storage and Building**

Wall Construction	Minimum Distance of Wall from Storage					
	Under 50 Pallets		50 to 200 Pallets		Over 200 Pallets	
	ft	m	ft	m	ft	m
Masonry with no openings	0	0	0	0	15	4.6
Masonry with wired glass in openings, outside sprinklers, and 1-hour doors	0	0	10	3	20	6
Masonry with wired or plain glass, outside sprinklers, and ¾-hour doors	10	3	20	6	30	9
Wood or metal with outside sprinklers	10	3	20	6	30	9
Wood, metal, or other	20	6	30	9	50	15

**Chapter 36 Telecommunication Facilities and Information Technology Equipment**

**36.1 General.**

**36.1.1** Telecommunication facilities shall comply with NFPA 76, *Standard for the Fire Protection of Telecommunications Facilities*.

**36.1.2** Information technology equipment and information technology equipment areas shall comply with NFPA 75, *Standard for the Protection of Information Technology Equipment*.

**Chapter 37 Fixed Guideway Transit and Passenger Rail Systems**

**37.1 General.** Fixed guideway transit and passenger rail system facilities shall comply with NFPA 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*.

**Chapter 38 Reserved**

**Chapter 39 Reserved**

**Chapter 40 Dust Explosion and Fire Prevention**

**40.1 General.** Equipment, processes, and operations that involve the manufacture, processing, blending, repackaging, or handling of combustible particulate solids or combustible dusts regardless of concentration or particle size shall be installed and maintained in accordance with this chapter and the following standards as applicable:

- (1) NFPA 61, *Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities*
- (2) NFPA 69, *Standard on Explosion Prevention Systems*
- (3) NFPA 85, *Boiler and Combustion Systems Hazards Code*
- (4) NFPA 120, *Standard for Fire Prevention and Control in Coal Mines*
- (5) NFPA 484, *Standard for Combustible Metals*

- (6) NFPA 654, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*
- (7) NFPA 655, *Standard for Prevention of Sulfur Fires and Explosions*
- (8) NFPA 664, *Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities*

**40.2 Permits.** Permits, where required, shall comply with Section 1.12.

### 40.3 Fugitive Dust Control and Housekeeping.

#### 40.3.1 Fugitive Dust Control.

**40.3.1.1** Continuous suction to minimize the escape of dust shall be provided for processes where combustible dust is liberated in normal operation. [654:8.1.1]

**40.3.1.2** The dust shall be conveyed to dust collectors. [654:8.1.2]

**40.3.2 Housekeeping.** The requirements of 40.3.2.1 through 40.3.2.3 shall be applied retroactively. [654:8.2]

#### 40.3.2.1\* General.

**40.3.2.1.1** Equipment shall be maintained and operated in a manner that minimizes the escape of dust. [654:8.2.1.1]

**40.3.2.1.2** Regular cleaning frequencies shall be established for walls, floors, and horizontal surfaces, such as equipment, ducts, pipes, hoods, ledges, beams, and above suspended ceilings and other concealed surfaces, to minimize dust accumulations within operating areas of the facility. [654:8.2.1.2]

#### 40.3.2.2\* Dust Clouds.

**40.3.2.2.1** Surfaces shall be cleaned in a manner that minimizes the generation of dust clouds. [654:8.2.2.1]

**40.3.2.2.2** Vigorous sweeping or blowing down with steam or compressed air produces dust clouds and shall be permitted only where the following requirements are met:

- (1) Area and equipment shall be vacuumed prior to blowdown.
- (2) Electrical equipment not suitable for Class II locations and other sources of ignition shall be shut down or removed from the area.
- (3) Only low-pressure steam or compressed air, not exceeding a gauge pressure of 15 psi (103 kPa), shall be used.
- (4) No hot surfaces or flames capable of igniting a dust cloud or layer shall exist in the area. [654:8.2.2.2]

#### 40.3.2.3 Vacuum Cleaners.

**40.3.2.3.1** Vacuum cleaners shall be listed for use in Class II hazardous locations or shall be a fixed-pipe suction system with remotely located exhauster and dust collector installed in conformance with Section 7.13 of NFPA 654. [654:8.2.3.1]

**40.3.2.3.2** Where flammable vapors or gases are present, vacuum cleaners shall be listed for Class I and Class II hazardous locations. [654:8.2.3.2]

### 40.4 Ignition Sources.

#### 40.4.1 Heat from Mechanical Sparks and Friction.

##### 40.4.1.1 Foreign Materials.

**40.4.1.1.1** Means shall be provided to prevent foreign material from entering the system when such foreign material presents an ignition hazard. [654:9.1.1.1]

**40.4.1.1.2** Floor sweepings shall not be returned to any machine. [654:9.1.1.2]

**40.4.1.1.3\*** Foreign materials, such as tramp metal, that are capable of igniting combustible material being processed shall be removed from the process stream by one of the following methods:

- (1) Permanent magnetic separators or electromagnetic separators that indicate loss of power to the separators
- (2) Pneumatic separators
- (3) Grates or other separation devices [654:9.1.1.3]

##### 40.4.1.2\* Inherently Ignitable Process Streams.

**40.4.1.2.1** Where the process is configured such that the pneumatic conveying system conveys materials that can act as an ignition source, means shall be provided to minimize the hazard. [654:9.1.2.1]

**40.4.1.2.2** The means used to minimize the ignition source hazard specified in 40.4.1.2.1 shall be permitted to include protection measures identified in 7.1.1 and Section 10.1 of NFPA 654, as appropriate. [654:9.1.2.2]

**40.4.1.3 Belt Drives.** Belt drives shall be designed to stall without the belt's slipping, or a safety device shall be provided to shutdown the equipment if slippage occurs. [654:9.1.3]

##### 40.4.1.4\* Bearings.

**40.4.1.4.1** Roller or ball bearings shall be used on all processing and transfer equipment. [654:9.1.4.1]

**40.4.1.4.2** Bushings shall be permitted to be used when a documented engineering evaluation shows that mechanical loads and speeds preclude ignition due to frictional heating. [654:9.1.4.2]

**40.4.1.4.3** Lubrication shall be performed in accordance with the manufacturer's recommendations. [654:9.1.4.3]

**40.4.1.5 Equipment.** Equipment with moving parts shall be installed and maintained so that true alignment is maintained and clearance is provided to minimize friction. [654:9.1.5]

**40.4.2 Electrical Equipment.** All electrical equipment and installations shall comply with the requirements of Section 6.6 of NFPA 654. [654:9.2]

**40.4.3 Static Electricity.** The requirements of 40.4.3.1 through 40.4.3.1.4 shall be applied retroactively. [654:9.3]

##### 40.4.3.1\* Conductive Components.

**40.4.3.1.1** All system components shall be conductive. [654:9.3.1.1]

**40.4.3.1.2** Where the use of conductive components is not practical, nonconductive equipment shall be permitted where one of the following criteria is met:

- (1) A documented engineering analysis that is acceptable to the AHJ has determined that no electrostatic ignition potential exists.
- (2) Materials being conveyed are not compatible with metal ductwork, and other means of explosion protection are provided in accordance with 7.1.2.1(1), 7.1.2.1(3), 7.1.2.1(4), or 7.1.2.1(5) of NFPA 654. [654:9.3.1.2]

**40.4.3.1.3** Bonding and grounding with a resistance of less than  $1.0 \times 10^6$  ohms to ground shall be provided for conductive components. [654:9.3.1.3]

**40.4.3.1.4** Where belt drives are used, the belts shall be electrically conductive and have a resistance of less than  $1.0 \times 10^6$  ohms to ground. [654:9.3.2]

**40.4.3.2 Intermediate Bulk Containers (IBCs).**

**40.4.3.2.1\*** Dispensing material from intermediate bulk containers into combustible atmospheres shall be performed only under the following conditions:

- (1) A conductive (i.e., metallic) rigid intermediate bulk container (RIBC) shall be permitted to be used for dispensing into any flammable vapor, gas, dust, or hybrid atmospheres provided the RIBC is electrically grounded.
- (2)\* A Type B flexible intermediate bulk container (FIBC) shall be permitted to be used for dispensing into dust atmospheres where the minimum ignition energy (MIE) is greater than 3 mJ, but no flammable vapor or gas is present.
- (3)\* A Type C FIBC shall be permitted to be used for dispensing into any flammable vapor, gas, dust, or hybrid atmosphere for which the FIBC has been tested and found suitable, provided the FIBC is electrically grounded with a resistance less than 1 megohm to ground.
- (4)\* A Type D FIBC shall be permitted to be used for dispensing into flammable vapor, gas, dust, or hybrid atmospheres for which the FIBC has been tested and found suitable.
- (5)\* A Type A FIBC or insulating RIBCs shall not be permitted to be used for combustible powder applications, processes, or operations unless a documented risk evaluation assessing the electrostatic hazards is acceptable to the AHJ. [654:9.3.3.1]

**40.4.3.2.2\*** FIBCs that are listed or tested by a recognized testing organization and are shown not to ignite flammable atmospheres during transfer shall be permitted to be used. [654:9.3.3.2]

**40.4.3.2.3** Documentation of test results shall be made available to the AHJ. [654:9.3.3.3]

**40.4.3.2.4** Particulate solids shall not be manually dumped directly into vessels containing flammable atmospheres (gases at a flammable concentration with an oxidant) or where displacement could cause a flammable atmosphere external to the vessel. [654:9.3.3.4]

**40.4.3.2.5** Manual additions of solids through an open port or a manway into a vessel containing flammable vapors shall be permitted to be done in 50 lb (25 kg) batches or smaller. [654:9.3.3.5]

**40.4.4 Cartridge-Actuated Tools.** The requirements of 40.4.4.1 through 40.4.4.3 shall be applied retroactively. [654:9.4]

**40.4.4.1** Cartridge-actuated tools shall not be used in areas where combustible material is produced, processed, or present unless all machinery is shut down and the area is cleaned and inspected to ensure the removal of all accumulations of combustible material. [654:9.4.1]

**40.4.4.2** Accepted lockout/tagout procedures shall be followed for the shutdown of machinery. [654:9.4.2]

**40.4.4.3** The use of cartridge-actuated tools shall be in accordance with 40.4.5.2. [654:9.4.3]

**40.4.4.4** An inspection shall be made after the work is completed to ensure that no cartridges or charges are left in the area where they can enter equipment or be accidentally discharged after operation of the dust-producing or handling machinery is resumed. [654:9.4.4]

**40.4.5 Open Flames and Sparks.** The requirements of 40.4.5.1 through 40.4.5.3 shall be applied retroactively. [654:9.5]

**40.4.5.1** Cutting and welding shall comply with the applicable requirements of NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*. [654:9.5.1]

**40.4.5.2** Grinding, chipping, and other operations that produce either sparks or open-flame ignition sources shall be controlled by a hot work permit system in accordance with NFPA 51B. [654:9.5.2]

**40.4.5.3** Smoking shall be permitted only in designated areas. [654:9.5.3]

**40.4.6 Process and Comfort Heating Systems.**

**40.4.6.1\*** In areas processing combustible dust, process and comfort heating shall be provided by indirect means. [654:9.6.1]

**40.4.6.2** Fired equipment shall be located outdoors or in a separate dust-free room or building. [654:9.6.2]

**40.4.6.3** Air for combustion shall be taken from a clean outside source. [654:9.6.3]

**40.4.6.4** Comfort air systems for processing areas containing combustible dust shall not be recirculated. [654:9.6.4]

**40.4.6.5** Recirculating systems shall be permitted to be used provided that all of the following criteria are met:

- (1) Only fresh makeup air is heated.
- (2) The return air is filtered to prevent accumulations of dust in the recirculating system.
- (3) The exhaust flow is balanced with fresh air intake. [654:9.6.5]

**40.4.6.6** Comfort air shall not be permitted to flow from hazardous to nonhazardous areas. [654:9.6.6]

**40.4.7 Hot Surfaces.** The temperature of external surfaces, such as compressors; steam, water, or process piping; ducts; and process equipment, in an area containing a combustible dust shall be maintained below 80 percent of the minimum ignition temperature of the dust layer as determined by recognized test methods acceptable to the AHJ or 329°F (165°C), whichever is lower. [654:9.7]

**40.4.8 Industrial Trucks.** In areas containing a combustible dust hazard, only industrial trucks listed or approved for the electrical classification of the area, as determined by Section 6.6 of NFPA 654, shall be used in accordance with NFPA 505, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations*. [654:9.8]

**40.5 Fire Protection.**

**40.5.1 General.** Fire protection systems, where installed, shall be specifically designed to address building protection, process equipment, and the chemical and physical properties of the materials being processed. [654:10.1]

**40.5.2 System Requirements.** Fire protection systems required by this Code shall comply with 40.5.2.1 and 40.5.2.6. [654:10.2]

**40.5.2.1\*** Fire-extinguishing agents shall be compatible with the conveyed materials. [654:10.2.1]

**40.5.2.2** Where fire detection systems are incorporated into pneumatic conveying systems, an analysis shall be conducted to identify safe interlocking requirements for air-moving devices and process operations. [654:10.2.2]

### 40.5.2.3 Detection Systems.

**40.5.2.3.1** Where fire detection systems are incorporated into the pneumatic conveying system, the fire detection systems shall be interlocked to shut down any active device feeding materials to the pneumatic conveying system on actuation of the detection system. [654:10.2.3.1]

**40.5.2.3.2** Where spark or infrared detection and extinguishing systems are provided, the process shall be permitted to continue operating on activation of the detection system. [654:10.2.3.2]

**40.5.2.3.3** Where a spark or infrared detection system actuates a diverter valve that sends potentially burning material to a safe location, the process shall be permitted to continue operating on activation of the detection system. [654:10.2.3.3]

**40.5.2.4** Where the actuation of fire-extinguishing systems is achieved by means of electronic fire detection, the fire detection system, including control panels, detectors, and notification appliances, shall be designed, installed, and maintained in accordance with 13.7.1.4. [654:10.2.4]

**40.5.2.4.1** All fire detection initiating devices shall be connected to the fire detection control panel via Style D or E circuits as described in *NFPA 72*. [654:10.2.5]

**40.5.2.4.2** All fire detection notification appliances shall be connected to the fire detection control panel via Style Y or Z circuits as described in *NFPA 72*. [654:10.2.6]

### 40.5.2.5 System Releasing Devices.

**40.5.2.5.1** All fire-extinguishing system releasing devices, solenoids, or actuators shall be connected to the fire detection control panel via Style Z circuits as described in *NFPA 72*. [654:10.2.7.1]

**40.5.2.5.2** The supervision shall include the continuity of the extinguishing system releasing device, whether that device is a solenoid coil, a detonator (explosive device) filament, or other such device. [654:10.2.7.2]

**40.5.2.5.3** All supervisory devices that monitor critical elements or functions in the fire detection and extinguishing system shall be connected to the fire detection control panel via Style D or E circuits as described in *NFPA 72*. [654:10.2.8]

### 40.5.2.6 Abort Gates and Abort Dampers.

**40.5.2.6.1** All fire protection abort gates or abort dampers shall be connected to the fire detection control panel via Style Z circuits as described in *NFPA 72*. [654:10.2.9.1]

**40.5.2.6.2** The supervision shall include the continuity of the abort gate or abort damper releasing device, whether that device is a solenoid coil, a detonator (explosive device) filament, or other such device. [654:10.2.9.2]

### 40.5.3 Fire Extinguishers.

**40.5.3.1** Portable fire extinguishers shall be provided throughout all buildings in accordance with the requirements of Section 13.6. [654:10.3.1]

**40.5.3.2\*** Personnel shall be trained to use portable fire extinguishers in a manner that minimizes the generation of dust clouds during discharge. [654:10.3.2]

### 40.5.4 Hoses, Nozzles, Standpipes, and Hydrants.

**40.5.4.1** Standpipes and hose, where provided, shall comply with Section 13.2. [654:10.4.1]

### 40.5.4.2 Nozzles.

**40.5.4.2.1** Portable spray hose nozzles that are listed or approved for use on Class C fires shall be provided in areas that contain dust, to limit the potential for generating unnecessary airborne dust during fire-fighting operations. [654:10.4.2.1]

**40.5.4.2.2** Straight-stream nozzles shall not be used on fires in areas where dust clouds can be generated. [654:10.4.2.2]

**40.5.4.3** Private outside protection, including outside hydrants and hoses, where provided, shall comply with Section 13.3. [654:10.4.3]

### 40.5.5\* Automatic Sprinklers.

**40.5.5.1\*** Where a process that handles combustible particulate solids uses flammable or combustible liquids, a documented risk evaluation that is acceptable to the AHJ shall be used to determine the need for automatic sprinkler protection in the enclosure in which the process is located. [654:10.5.1]

**40.5.5.2** Automatic sprinklers, where provided, shall be installed in accordance with Section 13.3. [654:10.5.2]

**40.5.5.3** Where automatic sprinklers are installed, dust accumulation on overhead surfaces shall be minimized to prevent an excessive number of sprinkler heads from opening in the event of a fire. [654:10.5.3]

**40.5.6 Spark/Ember Detection and Extinguishing Systems.** Spark/ember detection and extinguishing systems shall be designed, installed, and maintained in accordance with *NFPA 69, Standard on Explosion Prevention Systems*, and Section 13.7. [654:10.6]

### 40.5.7 Special Fire Protection Systems.

**40.5.7.1** Automatic extinguishing systems or special hazard extinguishing systems, where provided, shall be designed and installed in accordance with Section 13.8, and maintained as applicable in accordance with *NFPA 25*.

**40.5.7.2** The extinguishing systems shall be designed and used in a manner that minimizes the generation of dust clouds during their discharge. [654:10.7.2]

**40.5.8 Alarm Service.** Alarm service, if provided, shall comply with Section 13.7. [654:10.8]

### 40.6 Training and Procedures.

**40.6.1 Employee Training.** The requirements of 40.6.2 and 40.6.3 shall be applied retroactively. [654:11.1]

### 40.6.2 Plan.

**40.6.2.1** Operating and maintenance procedures and emergency plans shall be developed. [654:11.2.1]

**40.6.2.2** The plans and procedures shall be reviewed annually and as required by process changes. [654:11.2.2]

### 40.6.3 Initial and Refresher Training.

**40.6.3.1** Initial and refresher training shall be provided to employees who are involved in operating, maintaining, and supervising facilities that handle combustible particulate solids. [654:11.3.1]

**40.6.3.2** Initial and refresher training shall ensure that all employees are knowledgeable about the following:

- (1) Hazards of their workplace
- (2) General orientation, including plant safety rules

- (3) Process description
- (4) Equipment operation, safe startup and shutdown, and response to upset conditions
- (5) The necessity for proper functioning of related fire and explosion protection systems
- (6) Equipment maintenance requirements and practices
- (7) Housekeeping requirements
- (8)\* Emergency response plans [654:11.3.2]

**40.6.4 Certification.** The employer shall certify annually that the training and review required by 40.6.2 and 40.6.3 have been completed. [654:11.4]

#### 40.7 Inspection and Maintenance.

**40.7.1 General Requirements.** The requirements of 40.7.1.1 through 40.7.1.3 shall be applied retroactively. [654:12.1]

**40.7.1.1** An inspection, testing, and maintenance program shall be developed and implemented to ensure that the fire and explosion protection systems and related process controls and equipment perform as designed. [654:12.1.1]

**40.7.1.2** The inspection, testing, and maintenance program shall include the following:

- (1) Fire and explosion protection and prevention equipment in accordance with the applicable NFPA standards
- (2) Dust control equipment
- (3) Housekeeping
- (4) Potential ignition sources
- (5)\* Electrical, process, and mechanical equipment, including process interlocks
- (6) Process changes
- (7) Lubrication of bearings [654:12.1.2]

**40.7.1.3** Records shall be kept of maintenance and repairs performed. [654:12.1.3]

#### 40.7.2 Specific Requirements.

##### 40.7.2.1 Maintenance of Material Feeding Devices.

**40.7.2.1.1** Bearings shall be lubricated and checked for excessive wear on a periodic basis. [654:12.2.1.1]

**40.7.2.1.2** If the material has a tendency to adhere to the feeder or housing, the components shall be cleaned periodically to maintain good balance and minimize the probability of ignition. [654:12.2.1.2]

##### 40.7.2.2 Maintenance of Air-Moving Devices.

**40.7.2.2.1** Fans and blowers shall be checked periodically for excessive heat and vibration. [654:12.2.2.1]

**40.7.2.2.2** Maintenance, other than the lubrication of external bearings, shall not be performed on fans or blowers while the unit is operating. [654:12.2.2.2]

**40.7.2.2.3** Bearings shall be lubricated and checked periodically for excessive wear. [654:12.2.2.3]

**40.7.2.2.4\*** If the material has a tendency to adhere to the rotor or housing, the components shall be cleaned periodically to maintain good balance and minimize the probability of ignition. [654:12.2.2.4]

**40.7.2.2.5\*** The surfaces of fan housings and other interior components shall be maintained free of rust. [654:12.2.2.5]

**40.7.2.2.6** Aluminum paint shall not be used on interior steel surfaces. [654:12.2.2.6]

#### 40.7.2.3 Maintenance of Air-Material Separators.

##### 40.7.2.3.1 Means to Dislodge.

**40.7.2.3.1.1** Air-material separation devices that are equipped with a means to dislodge particulates from the surface of filter media shall be inspected periodically as recommended in the manufacturers' instructions for signs of wear, friction, or clogging. [654:12.2.3.1.1]

**40.7.2.3.1.2** These devices shall be adjusted and lubricated as recommended in the manufacturers' instructions. [654:12.2.3.1.2]

**40.7.2.3.2** Air-material separators that recycle air (i.e., cyclones and filter media dust collectors) shall be maintained to comply with 6.1.3 of NFPA 654. [654:12.2.3.2]

**40.7.2.3.3** Filter media shall not be replaced with an alternative type unless a thorough evaluation of the fire hazards has been performed, documented, and reviewed by management. [654:12.2.3.3]

##### 40.7.2.4 Maintenance of Abort Gates and Abort Dampers.

Abort gates and abort dampers shall be adjusted and lubricated as recommended in the manufacturers' instructions. [654:12.2.4]

##### 40.7.2.5 Maintenance of Fire and Explosion Protection Systems.

**40.7.2.5.1** All fire detection equipment monitoring systems shall be maintained in accordance with the requirements of 13.7.4.4. [654:12.2.5.1]

**40.7.2.5.2** All fire-extinguishing systems shall be maintained pursuant to the requirements established in the standard that governs the design and installation of the system. [654:12.2.5.2]

**40.7.2.5.3\*** All vents for the relief of pressure caused by deflagrations shall be maintained. [654:12.2.5.3]

**40.7.2.5.4** All explosion prevention systems and inerting systems shall be maintained pursuant to the requirements of NFPA 69. [654:12.2.5.4]

## Chapter 41 Welding, Cutting, and Other Hot Work

### 41.1 General.

**41.1.1** Hot work shall comply with NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*, and this chapter.

**41.1.2** Chapter 41 shall apply to the following hot work processes:

- (1) Welding and allied processes
- (2) Heat treating
- (3) Grinding
- (4) Thawing pipe
- (5) Powder-driven fasteners
- (6) Hot riveting
- (7)\* Torch-applied roofing in conjunction with the requirements of Section 16.6
- (8) Similar applications producing or using a spark, flame, or heat [51B:1.3.1]

**41.1.3** Chapter 41 shall not apply to the following:

- (1) Candles
- (2) Pyrotechnics or special effects