

527 CMR 10.00: FIRE PREVENTION, GENERAL PROVISIONS

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10.01: Definitions

For the purpose of 527 CMR 10.00, the following terms shall have the meanings respectfully assigned to them:

ANSI. The American National Standards Institute

Approved. Approved by the State Fire Marshal.

Authority Having Jurisdiction. The head of the fire department.

Bulk Merchandising Retail Buildings. A building where sales areas contain:

- (a) Combustible materials in piles greater than 12 feet in height or combustible materials on pallets, in racks or on shelves where the top of storage is greater than 12 feet in height or
- (b) Combustible materials such as rubber tires, Group A plastics, flammable liquids, idle pallets and commodities with similar heat release characteristics where the top of storage is greater than six feet in height.

D.E.P. Massachusetts Department of Environmental Protection.

Fire Protection System. Shall include any devices, equipment and systems used to detect a fire, activate an alarm, suppress or control a fire or any combination thereof.

Fumigant. Includes any substance which by itself or in combination with any other substance emits or liberates a gas, fume or vapor used for the destruction or control of insects, fungi, vermin, germs, rats, or other pests, and shall be distinguished from insecticides and disinfectants which are essentially effective in the solid or liquid phases. Examples are methyl bromide, ethylene dibromide, hydrogen cyanide, carbon disulphide and sulfuryl fluoride.

Fumigation. The use within an enclosed space of a fumigant in concentrations which may be hazardous or acutely toxic to people.

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Hospital. A building used as a hospital or sanatorium, a convalescent or nursing home, or an infirmary, as such terms are defined in M.G.L. c. 111, § 71, and licensed as such occupancies.

High Hazard Occupancies. Those having contents which are liable to burn with extreme rapidity or from which poisonous fumes or explosions are to be feared in the event of fire.

Low Hazard Occupancies. Those having contents of such low combustibility that no self propagating fire therein can occur and that consequently the only probable danger will be from panic, fumes or smoke, or fire from some external source.

Open Air Parking Spaces. A place which may be occupied by an automobile or by a component which may be attached to or transported by an automobile, trailer or semi-trailer as defined in M.G.L. c. 90 and c. 148, § 56.

Nationally Recognized Testing Laboratory (NRTL). An organization which tests for safety and lists, labels or accepts equipment or materials and which meets the criteria in 527 CMR 49.00 (Appendix C).

Ordinary Hazard Occupancies. Those having contents which are liable to burn with moderate rapidity and to give off a considerable volume of smoke, but from which neither poisonous fumes nor explosions are to be feared in case of fire.

Place of Assembly. A room or space accommodating 50 or more individuals for religious, recreational, educational, political, social or amusement purposes, or for the consumption of food or drink, including all connected rooms or space with a common means of egress and entrance.

School. Any building or premises in which a regular course of public or private instruction is afforded to not less than ten pupils at one time, or to kindergartens, pre-primary or nursery schools where ten or more children are enrolled for instruction or care.

Smoking. Possessing a lighted cigarette, cigar, pipe, or other smoking article.

Thermal Insecticidal Fogging. The use of insecticidal liquids which are passed through thermal fog-generating units where they are, by means of heat, pressure and turbulence, transformed and discharged in the form of a fog or mist that is blown into an area to be treated.

10.02: Fire Extinguishers

(1) Any building or other premises, which, due to its location, construction, character or occupancy, or the manner of conducting business therein or thereupon is such that it is considered necessary by the head of the fire department, shall be provided with portable fire extinguishers installed and maintained in accordance with NFPA 10.

(2) Every school, college and university laboratory newly constructed or renovated, or any room used for similar purposes wherein corrosives or flammable liquids are handled or where open flame devices are used, shall be equipped with one or more Emergency Wash Systems. Emergency Wash Systems shall include Drench/Deluge Showers, Hand Held Body/Face Washers and Deck Mounted Drench Hoses. The permanently mounted showers shall be located as close to the main door of the laboratory as possible (to provide an escape route), but should not be located greater than 50' from an experimental area. The permanently mounted showers shall be capable of discharging a continuous spray at a rate of 30 gallons per minute. Emergency Wash Systems shall be tempered to between 70° and 90°F. Cold potable water shall be permitted in those locations where tempered water is not accessible or as permitted by the head of the fire department.

The Drench/Deluge Showers, Hand Held Body/Face Washers and Deck Mounted Drench Hoses shall be installed in accordance with ANSI Z-358.1 and 248 CMR.

Each existing laboratory not equipped with an Emergency Wash System shall be equipped with at least one approved Fire Blanket, and a sign that reads:

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"In Case of Clothing Fire
STOP, DROP and ROLL"

The location of the Emergency Wash System Stations, and Fire Blankets shall be clearly indicated by signs of contrasting color, either RED and WHITE or GREEN and WHITE. The signs shall be at least 70 square inches in area bearing the words "EMERGENCY WASH STATION", or "SAFETY SHOWER" or "FIRE BLANKET".

Every wash station shall be tested by the owner of the building or his designee twice annually (every six months) for proper flow and operation. The owner shall upon request, provide the fire department with the test result, (including but not limited to): date of test, station operation, system malfunctions, and the name of the person performing the test.

Each student shall be advised of the location and proper use of the above emergency safety equipment by the teacher, instructor, or person in charge of the class before the first experiment is conducted.

Each student shall also be instructed in the proper procedure for the extinguishment of clothing fires at least twice during the course, as directed by the head of the fire department. The installation and operation of each safety device noted above shall be in order before the commencement of any class conducting laboratory experiments.

10.03: General Provisions

(1) Any obstacle which may interfere with the means of egress or escape from any building or other premises, or with the access to any part of said building or premises by the fire department in case of fire, shall be removed from aisles, floors, halls, stairways and fire escapes. Doors and windows designated as exits shall be kept clear at all times.

(2) Such aisles, floors, halls, stairways, fire escapes, doors and windows shall be kept in good repair and ready for use, and shall be kept properly lighted as required by 780 CMR: *State Board of Building Regulations and Standards*.

(3) Any vessel moored to or anchored near any dock or pier or located within the jurisdiction of any harbor or on any other water of the Commonwealth, which vessel is a danger by reason of explosion or fire, shall remain secure or be secured to such dock, mooring, or anchorage until the fire has been suppressed or the removal is ordered by the head of the fire department or his designated representative.

(4) Accumulations of Waste. Accumulations of waste paper, wood, hay, straw, weeds, litter or combustible or flammable waste or rubbish of any kind shall not be permitted to remain upon any roof or in any court, yard, vacant lot, alley, parking lot or open space, beneath a grandstand, pier, wharf or other similar structure. All weeds, grass, vines or other growth, when same endangers property, or is liable to be fired, shall be cut down and removed by the owner or occupant of the property. All combustible rubbish, oily rags or waste material when kept within a building, shall be stored in accordance with 527 CMR 34.00: *Rubbish Handling*. Storage shall not produce conditions which in the opinion and judgment of the head of the fire department will tend to create a nuisance or a hazard to the public health, safety or welfare.

(5) Materials Storage.

(a) General. The storage of combustible or flammable material shall be confined to approved storage areas.

(b) Permit Required. A person shall not store in any building or upon any premises in excess of 2,500 cubic feet gross volume of combustible empty packing cases, boxes, barrels or similar containers; or rubber tires, baled cotton, rubber, cork or other similarly combustible material without having obtained a permit from the head of the fire department.

(c) Inside Storage. Storage in buildings and structures shall be orderly, shall not be within two feet of the ceiling, and shall be located so as not to obstruct egress from the building.

(d) Outside Storage. The outside storage of combustible or flammable materials shall not be more than 20' in height and shall be compact and orderly. Such storage shall be located as not to constitute a hazard and not less than 25' from any other building on the site or from a lot line.

(e) The storage and use of Forest Products shall be regulated in accordance with the provisions of 527 CMR 17.00: *Forest Products*.

10.03: continued

- (6) Open Flame Devices. Open flame devices and special food service devices shall comply with the requirements of NFPA 101.
- (7) Chimneys and Heating Appliances.
- (a) General. All existing chimneys, smokestacks or similar devices for conveying smoke or hot gases to the outer air and all stoves, ovens, furnaces, incinerators, boilers or any other heat producing devices or appliances shall be constructed in accordance with 780 CMR: *State Board of Building Regulations and Standards* and BOCA Mechanical Code and maintained in accordance with NFPA 54 and 211 where the provisions of 527 CMR 10.00 does not specifically cover conditions and operations, and in such a manner as not to create a fire hazard.
- (b) Unsafe Heating Appliances. The head of the fire department shall order the sealing (preventing the use) of any existing stove, oven, furnace, incinerator, boiler or any other heat producing device or appliance found to be defective or in violation of code requirements for existing appliances after giving 24 hours notice to this effect to any person, owner, firm, agent or operator in charge of same. However, the head of the fire department shall seal any device or appliance without notice when inspection shows the existence of an immediate fire hazard or when imperiling human life. The sealed defective appliance shall remain withdrawn from service until all necessary repairs or alterations have been made.
- (c) Unauthorized Seal Removal. No person or user, firm or agent shall continue the use of any device or appliance which has been sealed or ordered sealed under 527 CMR 10.03(7)(b), unless written authority to remove said seal is given by the head of the fire department.
- (d) Incinerator Operations. All incinerating operations shall be subject to the following restrictions and a sign of permanent design, furnished by the owner, shall be posted in a conspicuous location at or near the incinerator to inform the operators of said restrictions:
1. Fuel-fired incinerators shall be preheated 30 minutes before using.
 2. Only competent operators shall be allowed to operate the incinerator.
 3. After loading the main combustion chamber, the feed door shall be closed until the combustion cycle is complete.
 4. The waste material ash compartment shall be cleaned regularly.
 5. Waste matter shall not be burned, under permit or otherwise, which shall, in burning, cause or create a dense smoke or odor.
 6. Chimney flues or vent pipes connected to a permanent heating device or incinerator shall be inspected, and cleaned when required, by the owner or his designee at least once each year. Such person shall inspect, maintain and clean, when necessary, each incinerator at least once each six months.
 7. Suitable spark arresters shall be installed and maintained in incinerators and in chimneys connected with permanent wood-burning furnaces.
 8. On complaint of a violation of 527 CMR 10.03(7)(d)1. through 10.03(7)(d)7. the head of the fire department shall investigate and report same to the authority having jurisdiction of those items.
- (8) Commercial Kitchen Exhaust Systems and Maintenance. See 527 CMR 11.00: *Commercial Cooking Operations*. Inspection, maintenance, testing and cleaning within the scope of NFPA 96, shall be performed in accordance with NFPA 96. Documentation shall be available for inspection by the head of the fire department.
- (9) Fire Doors. All required fire resistant rated doors or smoke barriers shall be maintained in good working order including all hardware necessary for the proper operation thereof. The use of door stops, wedges and other unapproved hold-open devices shall be prohibited. Where it is desired to keep the doors open, the head of the fire department shall require the installation of approved automatic closing devices in accordance with 780 CMR: *State Board of Building Regulations and Standards*.

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(10) Fire Lanes.

- (a) Designation. The head of the fire department shall require and designate public or private fire lanes as deemed necessary for the efficient and effective use of fire apparatus. Fire lanes shall have a minimum width of 18'.
- (b) Obstructions. Designated fire lanes shall be maintained free of obstructions and vehicles and marked in an approved manner.
- (c) Maintenance. All designated fire lane signs or markings shall be maintained in a clean and legible condition at all times and replaced when necessary to insure adequate visibility.

(11) Electrical.

- (a) Abatement of Electrical Hazards. When any electrical hazards are identified, such conditions shall be abated. All identified hazardous electrical conditions in permanent wiring shall be brought to the attention of the electrical code official.
- (b) Refer to 527 CMR 12.00 (Massachusetts Electrical Code)

(12) Asphalt (Tar) Kettles.

- (a) General. Any asphalt (tar) kettle beneath which is maintained any open fire, heated coals or ashes shall not be transported or permitted to be transported over any highway, road or street.
- (b) Exception. Asphalt (tar) kettles being used for street repair work shall only be transported in an open fired condition when the asphalt (tar) kettle unit is towed or moved at a speed not to exceed ten miles per hour (16 kph). A safety vehicle with warning lights shall follow the asphalt (tar) kettle when the open fired asphalt (tar) kettle is being transported or moved.
- (c) Restrictions. Asphalt (tar) kettles shall not be used inside any building or on any roof top under 70 feet in height. Fired asphalt (tar) kettles shall not be left unattended.
- (d) Temporary Use of Asphalt (tar) Kettles on Roofs Over 70 Feet in Height. There shall not be an exposed flame on roof top kettles. Asphalt (tar) kettles are to be placed on a non-combustible surface away from air-conditioning and ventilation units and are not to be left unattended. The attendant must man the kettle for a period of one hour after operation or until the material reaches a temperature of 315°F. Propane cylinders must be secured in place; no spare cylinders are to be stored on roofs and all cylinders are to be removed at the end of each work day. Propane cylinders must be kept away from air-conditioning and ventilation units. A 20 B:C multipurpose fire extinguisher must be used on all roof top asphalt (tar) kettles. A permit shall be obtained from the head of the fire department at least two working days prior to the placement of a tar kettle on a roof.
- (e) Fire Protection. There shall be a minimum of one 20 B:C multipurpose portable fire extinguisher within 30 feet of each asphalt (tar) kettle during the period such kettle is in use, and one additional minimum 20 B:C multipurpose portable fire extinguisher on the roof being covered. Every kettle, when in operation, shall be equipped with a tight fitting cover. A kettle, when in operation, shall be placed a safe distance from any combustible material or buildings.
- (f) LPG Cylinder Protection. When liquefied petroleum gas cylinders or containers are utilized for fueling asphalt (tar) kettles, the LPG cylinder shall be protected against vandalism and tampering.
 - 1. All LPG cylinders and containers shall be placed in a secured area for protection against tampering.
 - 2. LPG cylinders and containers which cannot be secured in a protected area shall be removed.
 - 3. The storage of LPG cylinders on roof tops shall be prohibited.
 - 4. Refer to 527 CMR 6.00 (LPG).

(13) Hazards to Means of Egress.

- (a) Obstructions. No person shall at any time place an encumbrance of any kind before or upon any fire escape, balcony or ladder intended as a means of escape from fire. The means of egress from each part of the building, including stairways, egress doors, and any panic hardware installed thereon, aisles, corridors, passageways and similar elements of the means of egress, shall at all times be maintained in a safe condition and shall be available for immediate use and free of all obstructions.

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(b) Storage. Combustible or flammable material shall not be placed, stored or kept in any portion of an exit or elevator car or hoistway or at the bottom of a stairway, fire escape or other means of escape unless such space is enclosed and protected as required by 780 CMR. Such storage shall be located so that the presence or burning of the materials would not obstruct or render hazardous the means of egress.

(c) Display. Aisles, passageways or stairways in any building shall not be obstructed with tables, showcases, Christmas trees, vending machines or other obstructions during hours when the building is open to the public, nor shall such obstructions be located in such a manner as to interfere with firefighting access. Display boards, signs, coat racks and any other movable equipment that obstructs the path of egress travel shall be prohibited. A mirror shall not be placed in or adjacent to any means of egress in such a manner as to confuse the direction of egress. Draperies and similar hangings obscuring an exit shall be prohibited.

(d) Exterior egress. All exterior stairways and fire escapes shall be kept free of snow and ice. Any fire escape or exterior stairway found to be in a state of deterioration or determined to be unsafe by the head of the fire department shall be repaired immediately. Depending on the structural condition, a load test of any fire escape shall be conducted before it is returned to service.

(e) Means of Escape. In occupancies in Groups R and I-1, bars, grilles or screens placed over emergency escape windows shall be releasable or removable from the inside without the use of a key, tool or force greater than required for normal operation of the window.

(14) All fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines used in areas including but not limited to those containing flammable gases or vapors, vapors of flammable liquids, volatile flammable liquids and their vapors or other areas where flammable gases are normally confined, combustible metal dusts and other combustible dusts, or areas where ignitable fibers or materials producing combustible flyings are handled shall comply with NFPA 505.

(15) No person or entity may install any fire protection system in any new or existing building or structure without first obtaining a permit therefor from the head of the fire department.

(16) Use and Storage of Alcohol Based Hand Rub Preparations.

(a) The personal use and handling of an alcohol based hand rub preparation is exempt from the permitting requirements of 527 CMR 14.00.

(b) The storage of alcohol based hand rub preparations, in excess of ten gallons, shall comply with the requirements of 527 CMR 14.00

(c) The use of wall-mounted or free-standing units used to dispense an alcohol based hand rub preparation shall comply with the following requirements:

1. The maximum capacity of each dispenser shall be 41 ounces.

2. The minimum separation distance between dispensers shall be 48 inches.

(d) No alcohol based hand rub preparation dispenser shall be located directly over or adjacent to any ignition source such as, but not necessarily limited to, electrical outlets, light fixtures or electrical appliances or any open flame device.

(e) For the purposes of 527 CMR 10.03(16), an alcohol based hand rub preparation is defined as a preparation containing alcohol designed for application to the hands for reducing the number of viable microorganisms on the hands and contains from 60% to 95% ethanol or isopropanol alcohol.

(17) Conflicting Requirements. Where requirements of reference standards conflict with statutes or regulations in effect in the Commonwealth of Massachusetts, those statutes or regulations shall take precedence unless otherwise modified by the State Fire Marshal.

10.04: Safety Cans

Flammable or combustible liquids stored or transported in other than a cargo tank, portable tank or transfer tank shall be in approved containers. Approved containers shall include those built to U. S. DOT standards, listed and labeled by an NRTL, or approved by the State Fire Marshal. When not in use, containers shall be in a secured, upright position with all openings tightly closed. Refer to 527 CMR 14.00 for additional provisions for the storage, handling and use of flammable and combustible liquids.

10.05: General Storage

- (1) Crating, storage, piling, *etc.*, of empty packing boxes, cases, or barrels of a combustible nature shall be restricted to segregated areas in separate buildings or separate fire areas.
- (2) Areas for outdoor storage shall be approved where the following are available: adequate municipal fire and police protection; access roads for use by the fire apparatus; adequate water supply; and, no exposure hazard.
- (3) The entire storage site shall be kept free from unnecessary accumulations of combustible materials. Weeds or grass and dry vegetation shall be kept down and a regular procedure shall be provided for the periodic cleanup of the entire area.
- (4) Tarpaulins used for the protection of storage against the weather shall be flameproofed.
- (5) The entire premises shall be approved by the head of the fire department.

10.06: Fumigation and Thermal Insecticidal Fogging

- (1) General. fumigation and thermal insecticidal fogging operations shall conform to the provisions of 527 CMR 10.06 and all other applicable requirements of 527 CMR 10.00, and shall apply to the use of gases, liquids, or solids in connection therewith.
- (2) Permit required. In order to provide the head of the fire department with notice that fumigation or fogging is to be done and so that operations which must be performed by the fire department may be adjusted to these conditions, no person shall perform fumigation or fogging without a permit from the head of the fire department.

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- (3) Fumigating Operations. No warehouse, factory or commercial building shall be fumigated by the use of any volatile flammable liquid, toxic substance, or any material requiring flame, unless a permit has been obtained therefor from the head of the fire department. Any building being so fumigated shall be posted at all entrances to give warning of the fumigant hazard during the entire fumigating operation.
- (4) Fire Safety Requirements.
- (a) General. Any building ship or vessel where fumigation and thermal insecticidal fogging operations are conducted shall comply with the following fire protection and safety requirements.
- (b) Sources of Ignition. All fires, open flames and similar sources of ignition shall be eliminated from the space under fumigation or thermal insecticidal fogging.
- (c) Electricity. Electricity shall be shut off, except that circulating fans which are to be used shall be designed and installed so as not to create an ignition hazard. Electrical equipment shall be designed and installed in accordance with 527 CMR 12.00 (Massachusetts Electrical Code).
- (d) Notification. The head of the fire department shall be notified in writing at least 24 hours before any building or structure is to be closed in connection with the use of any toxic or flammable fumigant. Such notification shall give the location of the building, structure, ship or enclosed space to be fumigated or fogged as well as its character and use, the fumigants or insecticides to be used, the person or persons in charge of the operation and the date and time when fumigation or fogging will be started. Notice of any fumigation or thermal insecticidal fogging shall be served with sufficient advance notice upon the occupants of any building or other enclosed space involved in the operation to enable them to evacuate the premises.
- (e) Warning signs. Suitable warning signs indicating the danger, type of chemical involved and recommended precautions shall be posted on all doors and entrances to the premises and upon all gangplanks and ladders from the deck, pier or land to the ship. Such notice is to be printed in red ink on white background. Letters in the signs are to be at least two inches in height and shall state the date and time of the operation, the name of the operator in charge, together with a warning to the effect that the premises so occupied shall be vacated at least one hour before the operation is started and shall not be re-entered until the danger signs have been removed by the proper authorities.
- (f) Watchman. During the period fumigation is in progress, except when fumigation is conducted in a gastight vault or tank, a capable, alert watchman or watchmen shall remain on duty at the entrance or entrances to the building, ship, or enclosed space fumigated until after the fumigation is completed and until the premises are properly ventilated and again safe for human occupancy. Sufficient watchmen shall be provided to prevent any person from entering the building, ship or enclosed space under fumigation without being observed.
- (g) Thermal Insecticidal Fogging Liquids. Thermal insecticidal fogging liquids with a flash point below 100° F (38° C) shall not be used.

10.07: Smoking

- (1) Smoking shall be prohibited in factories, workshops, mercantile establishments or warehouses, where the material being handled in and about such structure is of a flammable nature or where such structures are of a combustible construction which may, in the opinion of the head of the fire department, constitute a fire hazard. Such structures shall be provided with a smoking area or areas for employees, to be approved by the head of the fire department.
- (2) Smoking shall be prohibited in every assembly theater classified in use group A-1 in 780 CMR. Such structures shall be provided with a room or area to be designated as a "smoking area." Such room or area shall be of a size suitable to accommodate the number of smokers requiring such facility. The head of the fire department shall approve such areas.
- (3) Smoking shall be prohibited in schools, colleges, universities, public buildings and institutions except that smoking shall be permitted in designated areas. Such areas shall be approved by the head of the fire department. Such room or area shall be of a size suitable to accommodate the number of smokers requiring such facility.

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- (4) Smoking shall be prohibited on all docks, wharves and waterfront areas, except that smoking may be permitted in smoking areas so designated and approved by the head of the fire department.
- (5) Smoking may be permitted in "no smoking areas" of public halls and special halls only when they are not being used as auditoriums requiring fixed seats and aisles, if the head of the fire department so approves.
- (6) Each smoking area shall be equipped with at least the following items: a bucket of sand or other suitable receptacles for the disposal of smoking articles; a fire extinguisher for class A fires. The head of the fire department may require an increase in the number of the above items or additional safety appliances before approving such smoking areas.
- (7) Durable red and white signs with the words "NO SMOKING" in letters not less than three inches in height, shall be conspicuously posted in and about the "NO SMOKING AREAS" referred to in 527 CMR 10.07(2) through 10.07(4).
- (8) Durable green and white signs with the words "SMOKING AREA" in letters not less than three inches in height, shall be conspicuously posted in and about the smoking areas designated in 527 CMR 10.07(2) through 10.07(5).

10.08: Hospitals

- (1) All hospitals shall conform to the following fire drill regulations:
 - (a) Each hospital shall formulate a plan for the protection and evacuation of all persons in event of fire; such plan shall be presented to and approved by the head of the fire department. All employees shall be kept informed of their duties under such plan.
 - (b) The head of the fire department shall visit each hospital at least four times each year for the purpose of ascertaining whether the supervisors attendants and other personnel are familiar with the approved plan of evacuation.
- (2) Use and storage of combustible foam cellular plastic decubitus mattress pads shall conform to the following:
 - (a) The foam used for the pads shall meet the flammability regulations of the California Bureau of Home Furnishings Bulletin 117, and the package shall be labeled accordingly.
 - (b) The use of such pads shall be limited to patients for whom the pads are a medical necessity.
 - (c) No smoking or smoking materials shall be allowed by patients, visitors, or hospital employees in any room or area where decubitus pads are stored or used.
 - (d) Decubitus pads shall be disposed of in a safe manner acceptable to the head of the fire department. Only covered refuse containers shall be used. The disposal shall be such that the pads are not mixed with ordinary combustible rubbish inside the hospital.
 - (e) The bulk storage shall be only in a room protected by automatic sprinklers or in a separate storage building.
 - (f) Decubitus pads shall not be washed and reused and shall bear warning label so stating.

10.09: Schools

All schools shall conform to the following fire drill regulations:

- (1) The responsible school official in charge of the school or the school system shall formulate a plan for the protection and evacuation of all persons in the event of fire, and shall include alternate means of egress for all persons involved; such plan shall be presented to and approved by the head of the fire department.
- (2) The headmaster or person in charge of each school shall see that each class instructor or supervisor shall receive proper instructions on the fire drill procedure specified for the room or area in which that person carries out his duties before he assumes such duties.
- (3) Every student in all schools shall be advised of the fire drill procedure or shall take part in a fire drill within three days after entering such school.

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(4) The head of the fire department, or person designated by him, shall visit each school at least four times each year for the purpose of conducting fire drills and questioning the teachers and supervisors. These drills shall be conducted without advance warning to the school personnel other than the person in charge of the school at the time.

(a) Records. A record of all fire exit drills shall be kept on the premises and persons in charge of such occupancies shall file written reports at least twice a year with the head of the fire department giving the following information:

1. Time of drill.
2. Date of drill.
3. Weather conditions when occupants were evacuated.

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4. Number of occupants evacuated.
 5. Total time for evacuation.
 6. Other information relevant to the drill.
- (b) Evacuation. Fire exit drills shall include complete evacuation of all persons from the building. A drill of the multihazard evacuation plan required by the provisions of St. 2000, c. 159, § 363 may be substituted for one of the fire drills required by 527 CMR 10.09(4).
- (5) Paper materials displayed in Educational Use Occupancies, as defined in 780 CMR: *The Massachusetts State Building Code*, shall be permitted on walls only in accordance with 527 CMR 10.09(5).
- (a) Classrooms. Paper materials displayed shall not exceed 20% of the total wall area. Paper materials displayed shall be attached directly to the walls and shall not be permitted to cover an egress door or be placed within five feet of an egress door. When determining wall areas in accordance with 527 CMR 10.09(5)(a), door and window openings shall be included.
- Exception 1: Paper material displayed in fully enclosed viewing cabinets with glass or polycarbonate viewing panels or covered with glass or polycarbonate sheet material in accordance with the Building Code, 780 CMR. (Thermoplastic materials such as *Plexiglas*[®] are not acceptable.)
- Exception 2: Flame retardant paper material used for display.
- Exception 3: Paper material displays may cover up to 50% of the total wall area in classrooms that are fully sprinklered in accordance with 780 CMR: *The Massachusetts State Building Code*.
- (b) Exit Access Passageways, Assembly Areas and Corridors. Paper materials displayed shall not exceed 10% of the surface area of any wall. Such paper material shall be positioned in such manner to avoid concentration of materials to reduce flame spread in the event of a fire. In no event shall any one grouping exceed a maximum horizontal measurement of 12 feet and a maximum vertical measurement of six feet. Groups of paper material shall be allowed as long as there is space between each group equal to the horizontal width of the largest adjacent group. Paper material used for display shall be attached directly to the walls and shall not be permitted to cover an egress door or be placed within five feet of an egress door.
- Exception 1: Paper material displayed in fully enclosed viewing cabinets with glass or polycarbonate viewing panels or covered with glass or polycarbonate sheet material in accordance with the Building Code, 780 CMR. (Thermoplastic materials such as *Plexiglas*[®] are not acceptable.)
- Exception 2: Flame retardant paper material used for display.
- Exception 3: Paper materials displayed shall not exceed 50% of the surface area of any wall in buildings equipped with automatic sprinklers in accordance with 780 CMR: *The Massachusetts State Building Code*. Such paper material shall be positioned in such manner to avoid concentration of materials to reduce flame spread in the event of a fire. In no event shall any one grouping exceed a maximum horizontal measurement of 12 feet and a maximum vertical measurement of six feet. Groups of paper material shall be allowed as long as there is space between each group equal to at least ½ the horizontal width of the largest adjacent group. Paper materials displayed shall be attached directly to the walls and shall not be permitted to cover an egress door or be placed within five feet of an egress door.
- (c) Exits and Enclosed Exit Stairs. Displayed paper materials shall not be permitted in exits and enclosed exit stairs.
- (d) The provisions of 527 CMR 10.09(5) shall not prohibit the posting of exit signage or evacuation plans established in accordance with 527 CMR 10.09(1).
- (e) The provisions of 527 CMR 10.09(5) shall not be applicable to any election materials required by law to be posted during any local, state or federal election.

10.10: Theaters

- (1) Each theater shall formulate a plan for the protection and evacuation of all persons in event of fire; such plan shall be presented to and approved by the head of the fire department. All employees shall be kept informed of their duties under such plan.
- (2) The head of the fire department shall visit each theater at least four times each year for the purpose of ascertaining whether the manager and other personnel are familiar with the approved plan of evacuation.

10.11: Housing for the Elderly

- (1) All housing for the elderly complexes comprised of six or more dwelling units shall conform to the following fire drill regulations:
 - (a) Each such housing complex administrator shall formulate a plan for the protection and evacuation of all persons in event of fire, such plan shall be presented to and approved by the head of the fire department. All employees and residents shall be kept informed of their plan of action and/or evacuation route under such plan.
 - (b) The head of the fire department shall visit each such complex at least four times each year to:
 1. Conduct a fire drill; or
 2. If he deems a fire drill inadvisable because of the advanced age or degree of physical disability of its residents, to ascertain if all occupants are familiar with the approved plan of evacuation.

10.12: General Use Buildings

- (1) Any inner court not protected by a roof which will support a load of 40 lbs. per square foot shall have a substantial parapet or barrier at least 42" high. A skylight shall be constructed to support 40 lbs. per square foot or shall have a substantial parapet or barrier at least 30" high.
- (2) Reserved.
- (3) The head of the fire department shall, when he has knowledge, or when in his opinion any electrical wiring or equipment in or about any building or other structure is defective or improper, report the same in writing to the proper authority or authorities for enforcement of the laws relative thereto.
- (4) General requirements for the care and/or removal of gasoline tanks in unregistered or unusable motor vehicles.
 - (a) Any person, firm, corporation, society, association or partnership who keeps an unregistered motor vehicle in running condition which is equipped with a gasoline tank shall make certain that the vehicle is garaged or kept under surveillance in the same manner as a registered vehicle.
 - (b) Any person, firm, corporation, society, association or partnership who keeps a motor vehicle outside of a garage for a period in excess of 30 days, which, in the opinion of the head of the fire department or an inspector designated by him, is in such repair that it cannot be used or that it appears to him that it is not intended to be used, said person, firm, corporation, society, association or partnership shall be responsible for draining the gasoline from the fuel tank and immediately filling said tank with water equal to at least 5% of the volume of the tank within 24 hours after written notification by the head of the fire department or inspector so designated. Any unused diesel fuel, gasoline or mixture of fuels and water, shall be disposed of in accordance with the requirements of the Massachusetts Department of Environmental Protection.
 - (c) Any person, firm, corporation, society, association or partnership who removes a fuel tank from a motor vehicle shall make certain that such tank has been drained prior to removal from said vehicle.
 - (d) Any person, firm, corporation, society, association or partnership who keeps or disposes of a fuel tank which has been detached from a motor vehicle, shall immediately make certain that such tank is drained and filled with water.

10.13: Emergency Planning and Preparedness

- (1) Scope. The development of emergency plans, training and conducting of fire exit drills shall comply with the applicable requirements of 527 CMR 10.00 and the provisions of 527 CMR 10.13.
- (2) Places of Assembly.
 - (a) General. The employees or attendants of places of public assembly shall be trained and drilled in the duties they are to perform in case of fire, panic or other emergency.
 - (b) Egress plan. A plan showing the occupant load, seating diagram and location of exits and of aisles leading thereto shall be submitted to the head of the fire department and an approved copy shall be kept on the premises.

10.13: continued

Exception: Temporary deviation from the specifics of the approved seating diagram shall be permitted provided the occupant load is not increased and the intent of 527 CMR 10.17 is maintained.

(c) Exit Announcements. The owner or operator of any business or activity located in any A-1, A-2, or A-3 occupancy, which features a performance before an audience shall, prior to the start of such performance, make an audible announcement that notifies occupants of the location of the exits to be used in case of a fire or other emergency. For the purposes of 527 CMR 10.13(2)(c), a performance shall be defined as any form of entertainment by live appearance, or by video, audio or recorded means.

Such announcement may be made in person or by recorded communication and shall be communicated in such a reasonable manner to assure that all persons in attendance are aware of the location of the exits. Owners or operators of assemblies involving video or cinema presentations may use such video or cinematic medium to communicate such audible announcement or projected image. Such announcement or projected image shall include the location of egress routes or areas of rescue assistance for use by persons with disabilities.

In addition to the audible announcements required by 527 CMR 10.13(2)(c), if any written program, playbill or similar document is distributed prior to each program or performance, such document shall include a diagram of the location of all egress routes and areas of rescue assistance for use by persons with disabilities.

(d) Designation of a Crowd Manager.

1. As of June 1, 2011, the owner or operator of nightclub, dance hall, discotheque or bar, with an occupant load of 100 persons or more shall designate one crowd manager, for every 250 occupants, or portion thereof based upon the Certificate of Inspection issued under 780 CMR. The crowd manager(s) shall be present within the facility during all hours that the facility is open to patrons.

2. For the purposes of 527 CMR 10.13(2)(d), a nightclub, dancehall, discotheque or bar shall be defined as:

- a. any facility classified as an A-2 or A-3 use group under 780 CMR, The State Building Code, which is principally designed or used as a nightclub, dance hall, discotheque or bar; or
- b. any facility that features entertainment by live band or recorded music generating above normal sound levels and has a specific area designated for dancing.

3. The requirements of 527 CMR 10.13(2)(d) shall not apply to:

- a. a temporary structure erected at the same location for no more than ten days in any calendar year; or
- b. a facility that features fixed seating, such as a theatre, auditorium, concert hall or similar place of assembly; or
- c. A facility used for organized private function where:
 - i. each guest has a seat and a table for dining purposes;
 - ii. attendance for each event is limited by pre-arrangement between the facility operator and the private event organizers; and
 - iii. the legal capacity of the facility provides not less than 15 square feet (net) per occupant.

4. A crowd manager shall be at least 21 years of age, shall be the owner or operator of the business or under the direct control and supervision of said owner or operator and shall be responsible for the following:

- a. maintaining clear paths of egress, assuring that the facility does not exceed its occupant load limit, initiating a fire alarm if necessary, directing occupants to exits; and
- b. assuring general fire and life safety awareness of employees and occupants, including assuring that exit announcements are made in accordance with 527 CMR 10.13(2)(c); and
- c. accurately completing the safety plan checklist required by 527 CMR 10.13(2)(e).

5. A crowd manager shall be knowledgeable about the responsibilities required in 527 CMR 10.13(2)(d) and (e). The Marshal shall develop training materials and a reasonable method to confirm, on a three-year basis, that a crowd manager has completed training about the crowd manager's responsibilities under 527 CMR 10.00.

10.13: continued

(e) Fire and Building Safety Checklist. As of June 1, 2011 the crowd manager shall be responsible for the completion of the Fire & Building Safety Checklist, as prescribed by the Marshal, on each day of operation prior to opening the facility to patrons. This checklist shall include, but not be limited to, the routine safety check of existing fire protection systems, fire extinguishers, signage, interior finish, exits, unobstructed egress, crowd control procedures and building occupancy limits. The original completed checklists shall be kept on the premises for at least one year and shall be subject to inspection by the head of the fire department, the Marshal or their designee.

(3) Special Residential Use Group.

(a) Evacuation Plan. The administration of every facility shall have in effect and available to all supervisory personnel written copies of a plan for the protection of all persons in the event of fire and for their evacuation to areas of refuge and from the building when necessary. The plan shall include special staff actions including fire protection procedures needed to ensure the safety of any resident and shall be amended or revised upon admission to the home of any resident with unusual needs. All employees shall be periodically instructed and kept informed in respect to their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff at least every two months. A copy of the plan shall be readily available at all times within the facility.

(b) Resident Training. All residents capable of assisting in their evacuations shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. If the resident is being given rehabilitation, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

(c) Fire Exit Drills. Fire exit drills shall be conducted at least six times per year, two times a year on each shift. Twelve drills shall be conducted in the first year of operation. The drills are not required to be unannounced.

(d) Evacuation. Fire exit drills shall involve the actual evacuation of all residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All credited exits shall be used during fire drills.

Exception: Actual exiting from windows shall not be required to meet the requirements 527 CMR 10.13; opening the window and signaling for help shall be an acceptable alternative.

(4) Use Group I-2 --Incapacitated Care.

(a) Evacuation Plan. The administration of every building of Use Group I-2 shall have in effect and available to all supervisory personnel written copies of a plan for the protection of all persons in the event of fire and for their evacuation to areas of refuge and from the building when necessary. All employees shall be periodically instructed and kept informed with respect to their duties under the plan. A copy of the plan shall be readily available at all times in the telephone operators position or at the security center.

(b) Bed Mobility. Every bed intended for use by health care occupants shall be easily movable under conditions of evacuation and shall be equipped with the type and size of casters to allow easy mobility, especially over elements of the structure such as expansion plates and elevator thresholds.

Exception: Beds intended for use in areas limited to patients such as convalescent, self-care, or mental health patients.

(c) Fire Exit Drills. Fire exit drills in buildings of Use Group I-2 shall include the transmission of a fire alarm signal and simulation of emergency fire conditions except that the movement of infirm or bed-ridden patients to safe areas or to the exterior of the building shall not be required. Drills shall be conducted quarterly on each shift to familiarize facility personnel with signals and emergency action required under varied conditions. At least 12 drills shall be held every year. When drills are conducted between 9:00 p.m. (2100 hours) and 6:00 a.m. (0600 hours), a coded announcement shall be permitted instead of audible alarms

(d) Records. A record of all fire exit drills shall be kept on the premises and persons in charge of such occupancies shall file written reports at least twice a year with the head of the fire department giving the information listed in 527 CMR 10.09(4)(a).

(e) Employee Training. Employees shall be instructed in life safety procedures and devices.

10.13: continued

(5) Use Group I-3 -- Restrained.

(a) Emergency Plan. The administration of every facility shall have in effect and provided to all supervisory personnel written copies of a plan for the protection of all persons in the event of fire and for their evacuation to areas of refuge and from the building when necessary. All employees shall be instructed and drilled with respect to their duties under the plan. The plan shall be coordinated with and reviewed by the head of the fire department.

(b) Employee Training. Employees shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment. With respect to new staff, such training shall be provided promptly upon entrance on duty. With respect to existing staff, refresher training shall be provided at least annually.

(c) All building of Use Group I-3, or those portions of buildings having such occupancy, shall be provided with 24 hour staffing. Staff shall be within three floors or 300' horizontal distance of the access door of each resident housing area. In Use Condition III, IV and V as defined in 780 CMR, the arrangement shall be such that the staff involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within two minutes of alarm.

(d) Notification. Provisions shall be made so that residents in Use Conditions III, IV, and V as defined in 780 CMR can readily notify staff of an emergency.

(e) Keys. All keys necessary for unlocking doors installed in means of egress shall be individually identified by both touch and sight.

(6) High Rise Buildings.

(a) General. The owner or other person having charge of buildings identified as high-rise buildings in 780 CMR shall be required to prepare and submit to the head of the fire department for review and approval a fire safety plan and evacuation procedure as set forth in 527 CMR 10.13(6).

(b) Fire Safety Plan. The fire safety plan shall be distributed to the tenants and building service employees by the owner or agent. Tenants shall distribute to their employees applicable parts of the fire safety plan which affect their action in the event of a fire or emergency.

(c) Responsibility to Update Fire Safe Plan. It shall be the responsibility of the owner or agent to promptly update the fire safety and evacuation procedures upon changes in occupancy, use or physical arrangement.

(7) Marking or Identifying Certain Buildings that are Especially Unsafe in the Case of Fire.

(a) Any building determined to be especially unsafe in case of fire, under the provisions of 780 CMR 121.2 shall be identified and caused to be marked by the building official, with the cooperation of the head of the fire department, to indicate the degree of hazard.

(b) In marking such buildings, the following symbols shall be used:

 This symbol shall mean that interior hazard exists to such a degree that interior operations shall be conducted with extreme caution. This symbol shall not in any way limit the discretion of the on scene Incident Commander in directing operations that the Incident Commander deems necessary.

 This symbol shall mean that exterior or interior hazards exists to such a degree that consideration should be given to conduct operations from the exterior only. This symbol shall not in any way limit the discretion of the on scene Incident Commander in directing operations that the Incident Commander deems necessary.

(c) Markings shall be applied on the front of the building at or above the second floor level, where practical, between openings such that they are visible from the street. Markings may be applied to the sides or the rear of a building if the head of the fire department deems such placement necessary. Markings shall also be applied in a conspicuous place near every entrance and on penthouses. Markings shall not be applied over doors, windows, or other openings where they may be obscured by smoke or fire.

(d) Markings shall be a minimum of 24 inches by 24 inches. Markings shall either be on a placard with a reflective background or painted with a reflective paint of contrasting color directly on the surface of the building. Stripes and borders outside of the marking shall be a minimum of two inches wide.

(e) All markings shall bear a date as to when applied or the date of the most recent inspection.

(f) Prior to receiving a mark, all buildings shall be inspected thoroughly by the head of the fire department.

10.13: continued

(8) Special Provisions for Certain Places of Worship Which have been Issued a Valid Certificate of Occupancy for Use as a Temporary Overnight Shelter Pursuant to 780 CMR: *The Massachusetts State Building Code*. A place of worship which has been issued a valid Certificate of Occupancy for use as a temporary overnight shelter in accordance with the provisions of 780 CMR: *The Massachusetts State Building Code*, shall not be deemed in violation of the provision of 527 CMR, as a result of such temporary use, as long as the facility meets the following conditions:

(a) The temporary overnight shelter is in possession of a valid Certificate of Occupancy for such temporary use which has been reviewed and approved by the head of the fire department in accordance with 780 CMR.

(b) The approved temporary overnight shelter is used, occupied and operated in accordance with the terms and conditions specified in said Certificate of Occupancy and said certificate of occupancy is posted in a conspicuous location.

(c) In addition to the terms and conditions specified in the Certificate of Occupancy, the following fire safety requirements shall be applicable:

1. The building which houses the approved temporary overnight shelter shall have no known existing or outstanding violations of 527 CMR or M.G.L. c. 148.

2. A copy of the fire safety and evacuation plan, approved in accordance with the provisions of 780 CMR 3111.4.2., shall be kept on the premises and posted near the main entrance. The responsible person(s) identified in the application for the Temporary Certificate of Occupancy shall maintain the condition of the shelter in accordance with the layout contained in the approved fire safety and evacuation plan.

3. The employees, volunteers or attendants of the temporary overnight shelter shall be trained and drilled in the duties that they are to perform in case of fire, panic or other emergency in accordance with the provisions of 527 CMR 10.13(3)(a). During all hours of overnight activation of an approved temporary overnight shelter, employees, volunteers and attendants shall be awake and alert.

Exception: Employees, volunteers and attendants do not need to remain awake if the building is equipped throughout with an interconnected smoke detection and notification system.

4. No person shall be permitted to smoke within the temporary overnight shelter. Smoking may be allowed outside in an area approved by the Head of the Fire Department.

5. A document shall be posted, in a location approved by the Head of the Fire Department, containing an accurate number of sheltered occupants on a nightly basis. Such document shall also contain the names of all workers and volunteers who are overseeing or assisting in the temporary overnight shelter usage on a nightly basis. In the event of an evacuation, a copy of the document shall be in the possession of the person in charge at a designated meeting point.

6. The temporary overnight shelter shall maintain a working landline phone that must be accessible to initiate a call for assistance in the event of an emergency. A cell phone is not acceptable for compliance with this requirement.

7. The use of battery operated smoke alarms and carbon monoxide detectors, as outlined in 527 CMR 10.13(8)(c)7.a. and b. is permissible until December 31, 2011. Effective January 1, 2012 all temporary overnight shelters shall be equipped with monitored and interconnected smoke and carbon monoxide detection system as described in the State Building Code.

a. Carbon monoxide alarms shall be installed in accordance with 527 CMR 31.04(1). For purpose of compliance with 527 CMR 31.04, the dwelling unit of an approved temporary shelter shall be considered that portion of the building used for sleeping purposes.

b. An approved temporary overnight shelter shall feature working and approved smoke detectors in accordance with the requirements of 780 CMR: *The Massachusetts State Building Code*, if applicable. If smoke detectors are not currently required under 780 CMR, the shelter shall, at a minimum, feature approved working smoke detectors in accordance with the provisions of 527 CMR 32.00: *Approved Smoke Detectors*. Such smoke detectors shall be installed in any room or area used for sleeping purposes and in any room or area directly adjacent to said sleeping area.

(d) The head of the Fire Department shall be notified, in writing, at least 48 hours prior to the actual activation of an approved temporary overnight shelter and shall be notified, in writing, upon the termination of such activation.

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10.13: continued

(e) As a condition to use and occupation of an approved temporary overnight shelter pursuant to 527 CMR 10.13(8), The operator of any such shelter shall allow the head of the fire department or any person to whom the head of the fire department may delegate, the authority to enter the shelter during any hour of operation to determine compliance with the provisions of 527 CMR or M.G.L. c. 148.

(f) The provisions of 527 CMR 10.13(8) shall not impede the ability of the head of the fire department to take any reasonable action to protect persons or property under the authority of any provision of 527 CMR or M.G.L. c. 148.

10.14: Hazard Abatement in Existing Buildings(1) General.

(a) Scope. The provisions of 527 CMR 10.14 are to provide a reasonable degree of safety to persons occupying existing buildings that do not conform with the minimum requirements of 780 CMR: *The Massachusetts State Building Code* by requiring the following alterations to such existing buildings.

(b) Application of Other Codes. All alterations to an existing building which are caused directly or indirectly by the enforcement of 527 CMR 10.00 shall be done in accordance with the applicable procedures and provisions of 780 CMR: *The Massachusetts State Building Code*, 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*, the BOCA Mechanical Code and 527 CMR 12.00: *Massachusetts Electrical Code*.

(c) Continued Maintenance. All service equipment, means of egress devices and safeguards which are required by 527 CMR 10.00 or which were required by a previous statute or another regulation in a building or structure when erected, altered or repaired shall be maintained in good working order. The requirements of 527 CMR 10.14 are not to provide the basis for removal or abrogation of fire protection and safety systems and devices in existing buildings. These requirements are intended to require that existing buildings which do not comply with 527 CMR 10.00 be altered to provide a minimum level of safety as required herein.

(2) Elevator Recall. Required. Elevator recall shall conform to the requirements of 524 CMR: *Board of Elevator Regulations*.

(3) Mechanical Equipment Control. Smoke and Heat Detection. Each recirculating air system which serves more than one floor in buildings which exceed six stories in height shall be equipped with approved smoke and heat detection devices in accordance with the BOCA Mechanical Code. The devices shall stop the fan(s) automatically and shall be of the manual reset type. Automatic fan shutdown is not required when the system is part of an approved smoke removal or control system, or hazardous exhaust system.

10.15: Floor Finishing or Refinishing

(1) Scope. 527 CMR 10.15 shall apply to persons, or other entities that engage in sanding, finishing, or refinishing wood floors with or without compensation in any building or structure. The equipment, processes and operation of floor finishing or refinishing operations shall also comply with the applicable requirements of 527 CMR 10.00, 527 CMR 14.00: *Flammable and Combustible Liquids, Flammable Solids or Flammable Gases* and 527 CMR 34.00: *Rubbish Handling*.

(2) Purpose. The purpose of 527 CMR 10.15 is to prohibit the use of flammable liquid products during the course of any activity relating to the finishing or refinishing of the surface of wood floors and to provide minimum safety requirements for the sanding or stripping of wood floors located within buildings or structures.

(3) Prohibited Use. No person or entity shall apply or otherwise use any Flammable Floor Finishing Product during the course of any activity relating to the refinishing or finishing of the surface of a wood floor. The provisions of 527 CMR 10.15 shall be in addition to the prohibitions of M.G.L. c. 94, § 329 relating to the sale and use of certain lacquer sealers during the course of commercial wood floor finishing operations.

10.15: continued

Flammable Floor Finishing Product. For the purposes of 527 CMR 10.15, shall mean any clear or pigmented wood finish, formulated with nitrocellulose or synthetic resins to dry by evaporation and without chemical reaction, having a flashpoint below 100°, and having a vapor pressure not exceeding 40psi at 100°F, including clear lacquer sanding sealers.

(4) Fire Safety Requirements. In addition to prohibiting the use of flammable liquids on wood floors as stated above, no person shall sand or strip wood floors where such sanding or stripping would create fine or explosive dust that when dispersed could be ignited in the air without first complying with the following fire/explosion safety requirements. The requirements in 527 CMR 10.15(4)(a), (d) and (e) are not required if approved ventilation or dust collection equipment is used continuously so that the vapors or dust would not be considered ignitable:

(a) Sources of Ignition. All fires, open flames, or other sources of ignition, including smoking materials, spotlights, halogen lights or appliance pilot lights shall be eliminated from the area or unit.

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10.15: continued

(b) Electricity. Electrical equipment shall be designed and installed in accordance with 527 CMR 12.00: *Massachusetts Electrical Code*. All power tools on the jobsite shall be properly grounded.

(c) Electrical Permit Required. An electrical permit is required when connecting any floor-refinishing machine directly to the electrical panel in accordance with 527 CMR 12.00: *Massachusetts Electrical Code*.

(d) Warning Signs. Any person or other entity sanding or stripping floors in a building containing more than one dwelling unit shall post suitable warning signs indicating the danger of dust and fire/explosion hazard and shall be conspicuously posted on all doors and entrances to the building and/or unit. Such notice is to be printed in contrasting colors and shall have lettering at least 2" high and should state the name of the operator in charge, the date and time of the operation and the area or unit where work is to be performed. Warning signs shall be posted at least 24 hours prior to engaging in such work.

(e) No Smoking signs, featuring the international pictograph prohibiting smoking, must be posted at all entrances to the house or building before floor sanding or finishing begins and until 24 hours after the end of all floor sanding and finishing activities.

(5) Special Conditions.

Waste Materials. A metal waste-can with a self closing cover shall be provided for all waste materials, including wood dust, and rags. All such materials shall be removed from the building and disposed of daily.

10.16: Dust Explosion Hazards

(1) General.

(a) Scope. Equipment, processes and operations which involve dust consisting of pulverized particles of any material which, if mixed with air in the proper proportions, becomes explosive and may be ignited by flame or spark shall comply with the applicable requirements of 527 CMR and the provisions of 527 CMR 10.16, and shall be maintained in accordance with NFPA 61, 65, 68, 69, 85F, 91, 490, 651, 653, 654, and 655 where provisions of 527 CMR 10.16 do not specifically cover conditions and operations.

(b) Permit Required. A permit shall be obtained from the head of the fire department for the operation of any grain bleacher or elevator; flour, starch or feed mill; malt house; wood flour manufacturing plant; or plant pulverizing aluminum, coal, cocoa, magnesium, spices, sugar or other material producing dust as defined in 527 CMR 10.16(1)(a).

(2) Fire Safety Requirements Precautions. Smoking and the carrying of matches, the use of heating or other devices employing an open flame, or use of any spark producing equipment shall be prohibited in areas containing dust producing or dust agitating operations. Artificial lighting in such areas shall be by electricity with all wiring and electrical equipment installed in accordance with 527 CMR 12.00: *Massachusetts Electrical Code*.

10.17: Places of Assembly

(1) General.

(a) Scope. The decoration, operation or use of places of assembly and education shall comply with the applicable requirements of 527 CMR 10.00 and 21.00: *Decorations, Curtains, Draperies, Blinds and Other Window Treatments* and 780 CMR: *The Massachusetts State Building Code*.

(b) Permit Required. A place of assembly or one for educational use shall not be maintained, operated or used as such without a Certificate of Inspection from the building code official.

(c) Posting of Occupant Load. Each place of assembly or education shall be posted with an approved legible sign in contrasting colors conspicuously located near the main exit from the room or space stating the number of occupants permitted within such space. The number of occupants permitted shall be determined by 780 CMR: *The Massachusetts State Building Code*. Assembly rooms or spaces which have multiple use capability shall be posted for all such uses. The owner shall be responsible for installing and maintaining such signs.

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10.17: continued

- (d) Overcrowding. No person shall permit overcrowding or admittance of any person beyond the established posted occupant load of any place of assembly or education. The head of the fire department, upon finding overcrowded conditions or obstruction in aisles, passageways or other means of egress, or finding any condition which constitutes a hazard to life and safety shall cause the performance, presentation, spectacle or entertainment to be stopped until the area posted occupant load is re-established or the obstruction or hazardous condition is removed.
- (2) Decorative Material. Decorative materials shall conform to 527 CMR 21.00 and 780 CMR.
- (3) Motion Picture Screens. In places of assembly or education, a motion picture screen or screen masking shall not be used which will ignite and allow flame to spread over the surface when exposed to the test method test described in 527 CMR 21.00.
- (4) Means of Egress.
- (a) General. The operator or the person in charge of operation or use of any place of assembly or education shall check egress facilities before such building is occupied for any use, to determine compliance with the provisions of 527 CMR 10.17. If such inspection reveals that any element of the required means of egress is obstructed, inaccessible, locked, fastened or otherwise unsuited for immediate use, admittance to the building shall not be permitted until necessary corrective action has been completed.
- (b) Doors. An egress door shall not be locked, bolted or otherwise fastened or obstructed by any means, so that the door cannot be opened from the inside by the use of the ordinary door latch or knob or by pressure on the door or on a panic release device except as provided in 780 CMR.
- (c) Aisles. In each room where chairs, or tables and chairs, are used the arrangement shall be such as to provide for ready access by aisles to each egress door. Aisles leading directly to an egress door shall have not less than 44" clear width. When serving an occupant load of 50 or less, such required clear width shall not be less than 36". Aisles shall not be obstructed by chairs, tables or other objects.
- (d) Obstructions. A part of a stairway, whether interior or exterior, or of a hallway, corridor, vestibule, balcony or bridge leading to a stairway or exit shall not be used in any way that will obstruct or restrict its use as a means of egress or that will present a hazardous condition.
- (e) Signs and lighting. The signs and lighting of means of egress required for places of assembly or education shall be maintained in proper operating condition and be installed in accordance with 780 CMR.
- (5) Projection Rooms.
- (a) Refer to 780 CMR.
- (b) Miscellaneous equipment: A maximum of four flammable liquid containers that do not have a capacity greater than 16 ounces and are of a nonbreakable type shall be permitted in each projection room.

10.18: Matches

- (1) General.
- (a) Scope. The storage or handling of matches in quantities as indicated herein shall comply with the applicable requirements of 527 CMR 10.00 and the provisions of 527 CMR 10.18.
- (b) Permit required. A permit shall be obtained from the head of the fire department for the manufacture or storage of matches exceeding 25 cases in aggregate.
- (2) Fire Safety Requirements.
- (a) Wholesale storage. At wholesale establishments and wherever more than 25 cases of matches are stored, shipping containers containing matches shall be arranged in piles not exceeding 18' in height nor 25,000 cubic feet in volume. Such pile units shall be separated from each other and from other combustible material by a clear space of not less than four feet. Matches shall not be stored within ten feet of any exit, open stairway, elevator shaft opening or other vertical opening.

10.18: continued

- (b) Smoking. Smoking shall be prohibited, except in approved designated areas.
- (c) Retail storage. Where matches are sold at retail, original sealed containers shall not be stored closer than ten feet from heaters, furnaces, compressors or other mechanical equipment.
- (d) Housekeeping. Where shipping containers containing matches are opened, the contents of the opened containers shall be removed and stored in metal or metal-lined bins equipped with self-closing covers.

10.19: Ovens and Furnaces

- (1) Scope. 527 CMR 10.19 shall apply to all ovens and furnaces involving a fire or explosion hazard by reason of the temperatures at which the oven or furnace is operated; the fuel that is used; the presence of a flammable volatile from materials in the oven, furnace or combustion system; or a combination of the fuel and the flammable volatiles.
- (2) Permit required. A permit shall be obtained from the head of the fire department to operate an oven or furnace to which 527 CMR 10.19 applies.
- (3) Requirements.
 - (a) The appropriate standards are: NFPA 86, NFPA 86C, and NFPA 86D.
 - (b) Furnaces consisting of heated enclosures operating at approximately atmospheric pressure, which use a special processing atmosphere within the furnace, and vacuum furnaces, shall require approval.

10.20: Open Air Parking Spaces

Refer to M.G.L. c. 148, § 56.

10.21: Tire Rebuilding Plants

- (1) General.
 - (a) Scope. Automobile tire rebuilding plants shall conform to all other applicable requirements of 527 CMR 10.00 as well as the following provisions.
 - (b) Permit required: A permit from the head of the fire department shall be required to conduct or maintain any tire recapping or rebuilding plant.
- (2) Construction and Protection Requirements.
 - (a) Tire recapping and rebuilding plants shall have all floor openings, and vertical openings, such as for stairs and elevators, enclosed in accordance with the construction requirements of 780 CMR, and shall have fire doors at each floor.
 - (b) Tire recapping and rebuilding plants in buildings of wood frame construction or in buildings used in part for residence occupancy shall be separated from other parts of the building by wall or floor assemblies providing one-hour fire resistance installed in accordance with construction requirements of 780 CMR. Each opening into such room or compartments from other parts of the building shall be protected with an approved automatic self-closing fire door.
 - (c) Tire recapping and rebuilding plants shall conform to 780 CMR.
- (3) Dust Collecting Systems. Buffing machines shall be located in a room separated from the remainder of the plant by wall or floor assemblies providing one-hour fire resistance in accordance with the construction requirements of 780 CMR. Each opening into such rooms or compartments from other parts of the building shall be protected with an approved automatic, self-closing fire door. Each machine shall be connected to an ample dust collecting system discharging to a suitable container which shall be cleaned at frequent intervals. The dust collecting systems shall be constructed in accordance with the BOCA Mechanical Code.
- (4) Ventilation. Each room where rubber cement is used or mixed, or flammable solvents are applied, shall be equipped with effective natural or mechanical ventilation for hazards installed in accordance with the BOCA Mechanical Code.

10.22: Open Air Fires

- (1) No person shall set, maintain or increase a fire in the open air at any time except by permission, covering a period not exceeding two days from the date thereof, granted by the head of the fire department or forest warden. If such permission is not in writing, a written record shall be made setting forth the date upon which such permission was granted, the dates covered by such permission, the name and address of the person to whom, and the manner in which, such permit is granted, and any other information relative thereto. Such record shall be open to public inspection, reference (M.G.L. c. 48, § 13).
- (2) Fire department training or research activities involving open air fires are permitted when specific approval is obtained from the Massachusetts Department of Environmental Protection.
- (3) Persons 18 years of age or older may, without a permit, set, maintain or increase a reasonable fire for the purpose of cooking, upon sandy or gravelly land free from living or dead vegetation or upon sandy or rocky beaches bordering tidewater, if the fire is enclosed within rocks, metal or noncombustible material.
- (4) When a permit for the purpose of burning debris resulting from the demolition of a building is issued, the authority granting such permit may make it a condition that sufficient fire department personnel, to be assigned at the expense of the person seeking such permit, shall be present at such burning to control the fire until it is entirely extinguished.
- (5) Any permit granted under 527 CMR 10.22 may be revoked at any time. Whoever violates any provision of 527 CMR 10.22 shall be punished by a fine of not more than \$100 or by imprisonment for not more than one month, or both. (Reference M.G.L. c. 48, § 13).

10.23: Bonfires and the Burning of Christmas Trees

- (1) Ceremonial Bonfires. The city council of a city with the approval of its mayor, or the board of selectmen or town council of a town, may authorize the fire department of such city or town to issue not more than one permit in any one year for a ceremonial bonfire. Such bonfires shall mark the observance of a significant municipal, state or national event, and such ceremonial bonfire shall be under the continuous supervision of the fire department. A permit for such ceremonial bonfires shall be issued only to a municipal department or a civic, fraternal or veterans organization within such city or town. Only wood which has not been painted, impregnated, or otherwise treated with any foreign substance shall be permitted to burn in ceremonial bonfires. No bonfire shall burn for more than 12 hours. (Reference M.G.L. c. 111, § 142 H.)

10.23: continued

(2) Bonfires from July 2 to July 6: Any civic, fraternal, veteran, community or business organization may build and ignite bonfires under the supervision and control of the fire department of the city or town in which such burning takes place during the period from July 2 to July 6. A permit shall be obtained from the head of the fire department upon his determination that such organization will conduct such burning in a proper and reasonable manner. (Reference M.G.L. c. 111, § 142I.)

(3) Burning of Christmas Trees. Any person may burn Christmas trees during the period from December 26 to January 7, provided a permit is obtained from the head of the fire department where such burning shall take place and further provided that such burning is under the supervision and control of the fire department. (Reference M.G.L. c. 111, § 142G.)

10.24: Miscellaneous Provisions

(1) Any person having control of a mercantile, commercial or industrial establishment wherein canine guards are maintained shall notify the head of the fire department of the district, city or town within which such establishment is located that such canine guard is maintained therein. The head of the fire department and the person giving such notification shall cooperate in determining the procedure to be taken for the safety of authorized persons entering such mercantile, commercial or industrial establishment.

(2) Any person using a torch or other flame or heat producing device for the removal of paint or the application or removal of roofing material from any building or structure shall provide one approved fire extinguisher or water hose connected to an adequate water supply on the property where such burning is done. In all cases, the person doing the work shall remain on the premises for one hour after each use of the torch or other flame or heat producing device. A permit shall be obtained from the head of the fire department prior to the use of a torch or other flame or heat producing device.

10.25: Bulk Merchandising Retail Buildings

(1) Storage arrangement, including: commodity clearances, piling procedures, aisle widths and access, rack loading, and flue space openings, shall be maintained in accordance with the applicable section(s) of NFPA 30, 30B, 231, 231C, 231D and 430. Random variation in the width of a flue space opening or in their vertical alignment is permitted, provided the configuration does not obstruct water penetration.

(2) All commodities shall be stable to prevent collapse in case of a fire.

(3) During stocking operations, a minimum unobstructed aisle width of 44 inches (111.76 cm) shall be maintained. Good housekeeping shall be maintained at all times.

(4) Smoking shall be strictly prohibited, except in locations prominently designated as smoking areas. Such areas shall be approved by the head of the fire department. "No Smoking" signs shall be conspicuously posted in all prohibited areas.

(5) Portable fire extinguishers shall be provided and installed in accordance with NFPA 10. Extinguisher selection shall include a review of the fire hazards anticipated; for example, only water-type extinguishers shall be located in areas where chlorine-containing oxidizers are stored or displayed.

(6) Power-operated industrial trucks shall be of the type designated in NFPA 505.

10.25: continued

(7) An "Evacuation Plan" shall be submitted to the head of the fire department and an approved copy shall be kept on the premises. The plan shall be used to ensure the safe evacuation of all customers and employees. The plan shall detail procedures, define roles and responsibilities of employees, and include an egress plan indicating routes of travel to all exits. All employees shall be instructed and periodically trained with respect to their duties.

(8) A "Firesafety Plan" describing fire and life safety conditions for the property shall be made available for review by inspection authorities upon request, and it will be the responsibility of the owner/operator of the property to maintain an up-to-date copy of the plan on-site. The plan shall include both narrative and graphical information in a clear, concise format; shall be prepared by a competent, qualified individual; and, shall be subject to the approval of the head of the fire department. The plan shall include, but not be limited to, the following:

- (a) Property Identification
- (b) Operation and Use
- (c) Construction Features
- (d) Means of Egress
- (e) Common Hazards
- (f) Special Hazards
- (g) Water Supply
- (h) Extinguishing Systems and Devices
- (i) Evacuation Notification and Alarm Systems
- (j) Fire Prevention Policies and Procedures
- (k) Exterior Exposures
- (l) Fire Department Access

10.26: Covered Mall Buildings

A permit from the head of the fire department shall be required for facilities that utilize the mall area for trade shows, exhibits or displays. Exhibits and displays shall include, but are not limited to, the following; community service projects, sidewalk sales, holiday sales, and special seasonal events.

10.27: Cellulose Nitrate Film

- (1) Storage and handling of cellulose nitrate film shall be in accordance with NFPA 40.
- (2) A permit shall be obtained from the head of the fire department for the storage, handling, or use of cellulose nitrate film.

10.28: Referenced Publications

Documents or portions thereof that are referenced within 527 CMR 10.00 shall be considered a part of the requirements of 527 CMR 10.00. Refer to 527 CMR 49.00 for a complete listing of all documents referenced in 527 CMR.

REGULATORY AUTHORITY

527 CMR 10.00: M.G.L. c. 148, § 28.