

**DEPARTMENT OF THE ARMY
UNITED STATES MILITARY ACADEMY
West Point, New York 10996-1389**

USMA Regulation
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WEST POINT FIRE & EMERGENCY SERVICES DIVISION

FIRE PREVENTION AND PROTECTION

Summary. This regulation establishes policy and procedures and assigns responsibilities and requirements to ensure a comprehensive fire prevention and protection program for West Point. It implements AR 420-1, Chapter 25, *Fire and Emergency Services*. All construction and safety measures shall be maintained in accordance with the applicable building code, safety regulations, Army regulations and other controlling Garrison/USMA policies.

Objective. The objective of the West Point Fire Prevention Program is to eliminate the potential causes of fire and reduce the loss of life, injuries, and property damage, and protect the environment should fire occur. Accomplishing these objectives is vital if the mission is to continue without delay due to fire. To reach these objectives, it is necessary to reduce unsafe practices and conditions. This is done through the education of all personnel, Command support at all levels, and enforcement of safe practices. Therefore, fire prevention and fire safety will not be compromised for reasons of expediency or economy.

Applicability. This regulation applies to all military personnel and their Family members, civilian personnel, concessionaires, contractors and tenants on West Point. Failure by military personnel to observe the prohibitions and mandatory provisions of this instruction is a violation of Article 92 or other articles of the *Uniform Code of Military Justice* (UCMJ). Violations of specific prohibitions and requirements of this instruction by military personnel may result in disciplinary action under the UCMJ. Violations by civilian personnel may result in administrative disciplinary action without regard to otherwise applicable criminal or civil sanctions for violations of related laws.

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CHAPTER 1 ADMINISTRATION / AUTHORITY

SECTION 100 - GENERAL REQUIREMENTS

100-01 Fire Chief. The Fire Chief is the Fire and Emergency Services Division (F&ESD) Chief and is responsible to the Director of Emergency Services for establishing and managing an effective fire prevention and protection program. The Fire Chief serves as an advisor to the Garrison Commander on fire protection matters. Through the Fire Protection Specialist – Fire Prevention, the Fire Chief develops and administers the post Fire Prevention Program.

100-02 The Fire Chief is the Authority Having Jurisdiction (AHJ) for all fire related matters and is authorized to direct stoppage of operations or processes considered to be a fire, explosive, or life/safety hazard.

100-03 The Fire Chief controls and directs the F&ESD while engaged in firefighting operations on West Point. The Fire Chief or Senior Fire Officer has full authority over all fire suppression and rescue operations.

100-04 The Fire Chief authorizes the F&ESD to utilize the latest editions of the National Fire Protection Association Guidelines and Standards, Unified Facilities Criteria, as well as the International Fire Code for enforcement purposes while conducting Fire Risk Management Surveys of all buildings located on or under the control of West Point.

100-05 All construction and safety measures shall be maintained in accordance with the applicable building code, safety regulations, Army regulations, national consensus standards, Unified Facilities Criteria and other controlling West Point policies.

CHAPTER 2 RESPONSIBILITIES

SECTION 200 - UNIT COMMANDERS / DIRECTORS

200-01 Unit Commanders/Directors are responsible at all levels for ensuring sound fire prevention procedures are established and practiced in each activity or facility under their jurisdiction. They will enforce this regulation as it pertains to the buildings, areas, and property under their control. They will:

- a. Ensure all newly assigned personnel are given fire prevention and fire extinguisher training within 30 days of assignment.
- b. Ensure that all personnel are knowledgeable of required fire/emergency reporting procedures, use of fire extinguishers, and fire prevention practices.
- c. Ensure that fire prevention inspections and practices in facilities, rooms, or areas which are under continuous lock and key, are the responsibility of the individual supervisor maintaining that secured area. Additionally, it is their responsibility to arrange/provide access to these facilities for the F&ESD to perform fire inspection visits.
- d. Initiate appropriate administrative or disciplinary action against personnel who willfully damage or tamper with fire protection systems/devices or fail to comply with the fire prevention policies or practices

which, through misconduct, disregard for fire directives, or negligence, result in fire loss or damage to government property.

SECTION 201 - BUILDING COMMANDANTS

201-01 Each Building Commandant, as designated in USMA Regulation 420-4 *DHPW-Responsibility for Public Buildings*, is responsible to the Commander/Director for the fire safe condition of all facilities under their jurisdiction. The Building Commandant or designated alternate will take immediate corrective action on fire hazards or discrepancies found including those found during the Fire Risk Management Surveys.

201-02 In addition to escorting the Fire Prevention Inspector during inspections, Building Commandants will accomplish those fire prevention duties as outlined elsewhere in this regulation and as outlined in the Building Commandants Handbook.

201-03 The Building Commandant shall check all fire extinguishers, fire doors, exits, exit lights, and emergency lights on a monthly basis to ensure proper operating conditions and that inspections are documented on the SELF INSPECTION form. This document shall be sent to applicable Fire Protection Inspector via inner office mail or e-mail.

201-04 The Building Commandant will ensure all personnel are knowledgeable of fire/emergency reporting, evacuation procedures, and the activation procedures for all installed fire suppression/alarm systems.

201-05 The Building Commandant will inspect all designated outdoor smoking areas

to ensure proper receptacles are provided for the disposal of smoking materials.

201-06 The Building Commandant will ensure a closing or end of shift inspection at the end of each duty day or activity to ensure the facility or area is left in a fire safe manner.

201-07 The Building Commandant will provide duplicate keys to the F&ESD when locks are changed. The Building Commandant shall notify the Fire Prevention Office prior to changing locks to ensure that applicable keys are in the possession of the Fire Department when the changeover occurs.

201-08 The Building Commandant will develop and coordinate its implementation through the Fire Department an EMERGENCY ACTION PLAN as it pertains to fire evacuation, bomb threat, shelter-in-place, work place violence.

201-09 The Building Commandant and/or facilities engineer or user will furnish the initial purchase and installation of fire extinguishers in newly constructed facilities and their replacement in existing facilities, per NFPA 101, Life Safety Code. The fire department will inspect and determine the type, size, and location of extinguishers per NFPA 10, Portable Fire Extinguishers. Garrison will not furnish portable fire extinguishers in Family housing areas, unless required by NFPA 101.

SECTION 202 - CONTRACTING

202-01 Engineering Plans and Services (EP&S) Contracting. The EP&S Contracting Chief will establish procedures to ensure the Fire Prevention Office is notified of all pre-construction/pre-performance conferences. A fire protection

representative must attend these conferences to coordinate fire prevention requirements with contractors.

202-02 Chief of EP&S. The EP&S Chief will establish procedures to ensure the Fire Prevention Office reviews all projects under the control of the Army Corps of Engineers, DPW, JOC, and MATOC and are notified of pre-construction/pre-performance briefings.

202-03 Concessionaires. Concessionaires are responsible for fire prevention in their work areas and shall comply with this regulation as it pertains to them.

202-04 Contractor Operations. Employees of private contractors performing work under government contracts are responsible for fire safety and will comply with this regulation. Contractors are responsible for compliance with Department of Labor, OSHA Standards, and the protection of their employees. Contractors will be provided with a copy of the Contractors Fire Prevention Guide by the F&ESD during pre-performance conferences to be used as a reference for fire safety during construction operations.

CHAPTER 3 FIRE RISK MANAGEMENT SURVEYS

SECTION 300 – GENERAL REQUIREMENTS

300-01 The F&ESD Fire Prevention Office is the agency which manages, enforces, and executes the Fire Prevention Program. The Fire Prevention Inspector shall conduct a quality survey/inspection that will contribute to the fire safety of the unit/facility being inspected.

300-02 Scheduled visits will be conducted on an annual, semi-annual, quarterly or monthly basis depending on the level of risk

associated with the use and/or occupancy of the facility unless otherwise specified.

300-03 Walk-through inspections will be conducted on a no-notice basis when increased activity or the nature of special work or functions dictate it. These inspections may include periods of evening operations. Follow-up inspections on previously identified fire hazards and deficiencies may also be carried out in this manner.

300-04 The Building Commandant or designated representative will accompany the Fire Prevention Inspector on all visits.

300-05 Fire hazards noted during the inspection will be corrected on the spot if at all possible. If the fire hazard or condition poses an imminent danger, prompt action will be taken to eliminate or reduce the danger. When the hazard involves an operation or process that must be stopped, the Fire Chief, Commander/Director concerned and the USMA Safety Office shall be notified to observe and resolve the hazardous condition. If the problem cannot be resolved, the issue will be addressed up the designated chain of command.

300-06 Risk Management Surveys or Hazard and Deficiency forms identifying hazards or deficiencies that require submission of a DA FORM 4283, Facilities Engineering Work Request, to DPW for corrective action, will show full justification with references.

300-07 The Building Commandant will start immediate correction of the fire hazard or fire safety deficiency.

300-08 The DA Form 5382-Hazard/Deficiency Inspection Record and DA Form 5381-Building Fire Risk

Management Survey or equivalent are annotated to show any fire hazard or deficiency found. The Fire Protection Inspector will provide the Building Commandant with a copy of the inspection form with a brief annotation of the deficiencies/hazards found. The Building Commandant must indicate the corrective actions taken on the form and return the form to the Fire Protection Inspector within the specified date noted in the suspense block.

CHAPTER 4 FIRE / EMERGENCY REPORTING PROCEDURES

SECTION 400 – GENERAL REQUIREMENTS

400-01 Immediate and accurate reporting of a fire or emergency is essential to minimize fire loss and vehicle response time. Any person discovering a fire, potential fire, or emergency situation must report it immediately to the F&ESD. This includes any fire whether it has burned itself out or been extinguished without the aid of the F&ESD.

400-02 Fire/Emergency Reporting Telephone Numbers. Report all fires or emergencies to the F&ESD by dialing the MP Desk:

- a. From base telephone extensions – 911.
- b. From an off-base exchange number (including housing) – 938-3333.
- c. Cellular phone – (845) 938-3333.
- d. Lodging Facilities and Base Schools 938-3333.

400-03 Fire/Emergency Evacuation Procedures.

- a. Sound the alarm electronically, mechanically, and verbally. In buildings equipped with fire alarm systems, activate the nearest fire alarm pull station. In buildings not equipped with fire alarm systems, sound the alarm verbally.
- b. Call the F&ESD. When reporting a fire or emergency, give your name and telephone number, location/address of the emergency, and type of fire or emergency. Remain on the telephone. **DO NOT HANG UP** until released by the 911 operator or emergency dispatcher.
- c. Ensure all personnel are evacuated from the facility, assemble at a designated area at least 50 feet from the facility, when possible, and ensure all personnel are accounted for. Activation of a fire detection/suppression system requires evacuation of the facility. Personnel will not re-enter the building until deemed safe by the Senior Fire Officer. Special care should be taken when evacuating a building. Evacuees should not gather around dumpsters or cars.
- d. Designate at least one individual outside of the building to direct the F&ESD to the location of the fire or emergency.

400-04 False Fire Reporting. Any person(s) involved in malicious and/or deliberate transmission of false information pertaining to a fire or emergency, including falsely initiating a fire department response, will be subject to applicable disciplinary action.

This includes tampering with fire reporting equipment and devices.

CHAPTER 5 EMERGENCY EVACUATION DRILLS & FIRE PREVENTION TRAINING

SECTION 500 - GENERAL REQUIREMENTS

500-01 Fire Prevention training will be conducted by Fire Department personnel.

SECTION 501 - EMERGENCY EVACUATION DRILL REQUIREMENTS

501-01 Fire evacuation drills are the responsibility of the Building Commandant to ensure the safe evacuation of personnel in case of fire. The intent of the fire drills is to expose occupants to the sound of the fire alarm system, test capacity of the fire exits, and to practice organizational fire reaction plans.

501-02 MADS or Unit Commanders may conduct fire evacuation drills at their discretion.

501-03 Fire evacuation drills shall be conducted at the following intervals for the following occupancies:

- a. Hospitals: fire drills will be conducted at a minimum of once per quarter for each work shift.
- b. Child Development Centers: fire drills will be conducted in each childcare facility on a monthly basis by the F&ESD.
- c. Public Schools: the frequency of fire drills at the West Point Elementary and Middle School will be conducted on a monthly basis while school is in session.

- d. Places of Public Assembly: Building Commandants must conduct semi-annual fire drills to ensure employees are familiar with fire evacuation procedures of customers and responsibilities during fire/emergency situations. No requirement exists for fire drills that require the public to evacuate the premises.

The Fire Chief may direct fire drills in any facility where the need for such drills is indicated.

501-04 Fire alarm systems will not be used to conduct fire evacuation drills without prior coordination with the Fire Prevention Office.

SECTION 502 – CROWD MANAGERS TRAINING

502-01 Assembly occupancies shall have trained crowd manager(s) at a ratio of 1 per 250 occupants.

502-02 Managers/supervisors will establish and maintain a fire prevention certification folder for all employees.

502-03 Initial training shall be scheduled and conducted by the Fire Prevention Office. Recertification shall be annually thereafter.

Section 503 – Fire Extinguisher Training

503-01 Fire extinguisher education is required for all newly assigned personnel, and annually thereafter. This education will include general principals of fire extinguisher, extinguishing systems, and the hazards involved with the initial stage of firefighting.

503-02 Training shall be scheduled and conducted by the Fire Prevention Office.

SECTION 504 – INSTALLED EXTINGUISHING SYSTEMS TRAINING

504-01 Personnel who work in areas protected by installed suppression extinguishing systems, such as dry or wet chemical systems in cooking areas will receive initial education and annual refresher training conducted by the Fire Department.

SECTION 505 BUILDING COMMANDANT / FIRE MARSHAL TRAINING

505-01 In accordance with AR 420-01 entitled ARMY Facilities Management Chapter 25 Section VII Fire Prevention Operations Sub Section 25-24 the Building Commandant/Fire Marshal will be trained by the F&ES fire prevention division and will execute fire prevention measures in the assigned building or facility, and provide written reports to the fire chief including self-inspections, emergency evacuation plans, and fire safety briefings/occupant training. Initial training shall be scheduled and conducted by the Fire Prevention Office. Recertification shall be annually thereafter.

**CHAPTER 6
GENERAL PRECAUTIONS AGAINST
FIRE**

SECTION 600 – COMBUSTIBLE WASTE MATERIAL

600-01 Combustible waste material creating a fire hazard shall not be allowed to accumulate in buildings or structures or upon premises.

600-02 Accumulations of wastepaper, wood, hay, straw, weeds, litter or combustible or flammable waste or rubbish of any type shall not be permitted to remain on a roof or in any court, yard, vacant lot, alley, parking lot, open space, or beneath a grandstand, bleacher, or other similar structure.

600-03 Weeds, grass, vines, or other growth that is capable of being ignited and endangering property shall be cut down and removed.

600-04 Spaces underneath grandstand and bleacher seats shall be kept free from combustible and flammable materials.

600-05 Storage of combustible rubbish shall not produce conditions that will create a nuisance or a hazard to the public health, safety or welfare.

600-06 Combustible rubbish, and waste material kept within a structure shall be stored in accordance with 601-7 to 601-9 (below).

600-07 Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container. Contents of such containers shall be removed and disposed of daily.

600-08 Containers with a capacity exceeding 40 gallons shall be provided with lids. Containers and lids shall be constructed of noncombustible materials or approved combustible materials.

600-09 Dumpsters and containers with an individual capacity of 1.5 cubic yards or more shall not be stored in buildings or placed within 5 feet of combustible walls, openings or combustible roof eave lines.

SECTION 601 – OPEN BURNING AND RECREATIONAL FIRES

601-01 A person shall not kindle or maintain or authorize to be kindled or maintained any open burning unless conducted and approved in accordance with this section.

601-02 Permit required. A permit shall be obtained from the Fire Prevention Office in accordance with Chapter 16 prior to kindling a fire. Application for such approval shall only be presented by and permits issued to the owner or user of the land upon which the fire is to be kindled.

601-03 Prohibited open burning. Open burning that will be offensive or objectionable because of smoke or odor emissions when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited. The Fire Chief or dually authorized representative is authorized to order the extinguishment by the permit holder or the F&ESD of open burning which creates or adds to a hazardous or objectionable situation.

601-04 The location for open burning shall not be less than 50 feet from any structure, and provisions shall be made to prevent the fire from spreading to within 50 feet of any structure.

Exceptions:

- a. Fires in outdoor fireplaces that are not less than 15 feet from a structure.
- b. The minimum required distance from a structure shall be 25 feet where the pile size is 3 feet or less in diameter and 2 feet or less in height.

601-05 Bonfires. A bonfire shall not be conducted within 50 feet of a structure or combustible material unless the fire is contained in a pit. Conditions which could cause a fire to spread within 50 feet of a

structure shall be eliminated prior to ignition.

601-06 Recreational fires shall not be conducted within 25 feet of a structure or combustible material. Conditions which could cause a fire to spread within 25 feet of a structure shall be eliminated prior to ignition.

601-07 Open burning, bonfires or recreational fires shall be constantly attended until the fire is extinguished. A minimum of one portable fire extinguisher with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

601-08 Open-Flame Cooking Devices. Charcoal burners, BBQs, and other open-flame cooking devices shall not be operated on combustible balconies or within 10 feet of combustible construction.

601-09 Liquefied-Petroleum-Gas-Fueled Cooking Devices. LP-gas burners having an LP-gas container shall not be operated on combustible balconies or within 10 feet of combustible construction.

SECTION 602 – SMOKING

602-01 Smoking is prohibited in and within 50 feet of all government owned buildings and vehicles with the exception of family housing.

602-02 Smoking, striking matches, or operating mechanical cigarette lighters will not be permitted in and within 50 feet of all government owned buildings and vehicles with the exception of Family housing. Additionally, smoking, striking matches, or operating mechanical cigarette lighters will

not be permitted in and within 50 feet of all munitions storage areas or vehicles containing munitions.

602-03 An adequate number of ashtrays and metal receptacles with self-closing lids will be used for the disposal of smoking materials and will be provided outside all buildings and areas where smoking is permitted. The receptacle will be marked "Smoking Material Only."

602-04 Supervisors will inspect smoking areas at the close of each shift or duty day to ensure that all smoking materials have been properly disposed of.

602-05 Smoking material receptacles will be emptied weekly, or more often if needed, by using water to thoroughly wet down the contents to ensure all materials are extinguished before combining them with other wastes in dumpsters, trash collection barrels, etc.

602-06 Smoking materials will not be thrown in trash receptacles, on the floor, or from vehicles. Do not use smoking material receptacles for trash.

SECTION 603 – FUEL EQUIPMENT

603-01 Fueled equipment, including but not limited to, motorcycles, mopeds, lawn-care equipment, and portable cooking equipment shall not be stored, operated, or repaired within a building.

Exceptions:

Buildings or rooms constructed for such use in accordance with the International Building Code and Unified Facilities Criteria.

603-02 The Fire Chief and/or his representative is authorized to require removal of fueled equipment from locations

where the presence of such equipment is determined to be hazardous.

SECTION 604 – INDOOR DISPLAYS

604-01 Fixtures and displays of goods for sale to the public shall be arranged so as to maintain free, immediate and unobstructed access to exits and means of egress.

604-02 The display of highly combustible goods, including but not limited to fireworks, flammable or combustible liquids, liquefied flammable gases, oxidizing materials, pyroxylin plastics, and agricultural goods in main exit access aisles, corridors, covered malls, or within 5 feet of entrances to exits and exterior exit doors is prohibited when a fire involving such goods would rapidly prevent or obstruct egress.

604-03 Liquid- or gas-fueled vehicles, boats or other motor craft shall not be located indoors except as follows:

- a. Batteries are disconnected.
- b. Fuel in fuel tanks is removed.
- c. Fuel tanks and fill openings are closed and sealed to prevent tampering.

SECTION 605 – USE OF CANDLES

605-01 The use of candles in government buildings is prohibited.

Exceptions:

- a. Candles are permitted in places of worship (Jewish Chapel, Cadet Chapel, etc.) and catering halls (West Point Club, Eisenhower Hall).
- b. Candles are permitted in Family Housing Units.

CHAPTER 7 FIRE SERVICE FEATURES

SECTION 700 – ACCESS TO BUILDING OPENINGS AND ROOFS

700-01 Exterior doors and openings shall be maintained readily accessible for emergency access by the F&ESD to the public way.

700-02 Exterior doors and their function shall not be eliminated without prior approval. Exterior doors that have been rendered nonfunctional and that retain a functional door exterior appearance shall have a sign affixed to the exterior side of the door with the words **THIS DOOR BLOCKED**. The sign shall consist of letters having a principal stroke of not less than 0.75 inch wide and at least 6 inches high on a contrasting background. Required fire department access doors shall not be obstructed or eliminated. Exit and exit access doors shall comply with Chapter 11.

SECTION 701 – PREMISES IDENTIFICATION

701-01 New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 4 inches high with a minimum stroke width of 0.5 inch.

701-02 Streets and roads shall be identified with approved signs. Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and be

maintained until replaced by permanent signs.

SECTION 702 – KEY BOXES

702-01 Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or firefighting purposes, the Fire Chief or representative is authorized to require a key box to be installed in an approved location. The key box shall be manufactured by “KNOX” and shall contain keys to gain necessary access.

702-02 A “KNOX” lock shall be installed on gates or similar barriers when required by the Fire Chief.

SECTION 703 – FIRE DEPARTMENT ACCESS TO EQUIPMENT

703-01 Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning systems, electrical systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the F&ESD. Approved signs required to identify fire protection equipment and equipment location, shall be constructed of durable materials, permanently installed and readily visible.

CHAPTER 8 BUILDING SERVICES AND FEATURES

SECTION 800 – ELECTRICAL EQUIPMENT, WIRING AND HAZARDS

800-01 Identified electrical hazards shall be abated. Identified hazardous electrical conditions in permanent wiring shall be brought to the attention of the Fire Chief or

dually authorized representative. Electrical wiring, devices, appliances and other equipment that is modified or damaged and constitutes an electrical shock or fire hazard shall not be used.

800-02 Illumination shall be provided for service equipment areas, motor control centers and electrical panelboards.

800-03 A working space of not less than 30 inches in width, 36 inches in depth and 78 inches in height shall be provided in front of electrical service equipment. Where the electrical service equipment is wider than 30 inches, the working space shall not be less than the width of the equipment. No storage of any materials shall be located within the designated working space.

Exceptions:

- a. Access openings into attics or under-floor areas which provide a minimum clear opening of 22 inches by 30 inches.

800-04 Doors into electrical control panel rooms shall be marked with a plainly visible and legible sign stating ELECTRICAL ROOM or similar approved wording. The disconnecting means for each service, feeder or branch circuit originating on a switchboard or panelboard shall be legibly and durably marked to indicate its purpose unless such purpose is clearly evident.

800-05 Multiplug adaptors, such as surge protectors, unfused plug strips or any other device not complying with Underwriters Laboratory (UL) and NFPA 70 entitled the National Electric Code shall be prohibited.

800-06 Relocatable power tap cords shall not extend through walls, ceilings, floors, under doors or floor coverings, or be subject to environmental or physical damage.

800-07 Extension cords and flexible cords shall not be a substitute for permanent wiring. Extension cords and flexible cords shall not be affixed to structures, extended through walls, ceilings or floors, or under doors or floor coverings, nor shall such cords be subject to environmental damage or physical impact. Extension cords shall be used only with portable appliances.

800-08 Extension cords shall be plugged directly into an approved receptacle, and shall only serve one portable appliance.

800-09 The ampacity of the extension cords shall not be less than the rated capacity of the portable appliance supplied by the cord.

800-10 Extension cords shall be maintained in good condition without splices, deterioration or damage.

800-11 Extension cords shall be grounded when serving grounded portable appliances.

800-12 Open junction boxes and open-wiring splices shall be prohibited. Approved covers shall be provided for all switch and electrical outlet boxes.

800-13 Electrical appliances and fixtures shall be tested and listed in published reports of inspected electrical equipment by an approved agency and installed in accordance with all instructions included as part of such listing.

800-14 Electrical motors shall be maintained free from excessive accumulations of oil, dirt, waste and debris.

800-15 Temporary wiring for electrical power and lighting installations is allowed for a period not to exceed 90 days. Temporary wiring methods shall meet the

applicable provisions of the National Electric Code (NFPA 70).

SECTION 801 – ELEVATOR RECALL AND MAINTENANCE

801-01 An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. The sign shall read: IN FIRE EMERGENCY, DO NOT USE ELEVATOR. USE EXIT STAIRS.

801-02 Keys for the elevator car doors and firefighter service keys shall be kept in an approved location (KNOX BOX) for immediate use by the F&ESD.

SECTION 802 – COMMERCIAL KITCHEN HOODS

802-01 Commercial kitchen exhaust hoods shall be cleaned and made free of all grease build up every 6 months or as deemed necessary by the Fire Chief or his representative.

802-02 A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for purposes that produce grease vapors.

**CHAPTER 9
INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS**

SECTION 900 – FURNISHINGS

900-01 Furnishings or decorations of an explosive or highly flammable character shall not be used.

900-02 Fire-retardant coatings shall be maintained so as to retain the effectiveness

of the treatment under service conditions encountered in actual use.

900-03 Furnishings or other objects shall not be placed to obstruct exits, access thereto, egress there from or visibility thereof.

SECTION 901 – GROUP (A) ASSEMBLY OCCUPANCIES

901-01 Exposed foam plastic materials and unprotected materials containing foam plastic used for decorative purposes or stage scenery or exhibit booths shall have a maximum heat release rate of 100 kilowatts (kW) when tested in accordance with UL 1975.

901-2 The screens upon which motion pictures are projected shall be either flame resistant, as demonstrated by complying with NFPA 701, or shall comply with the requirements for a Class B interior finish as defined by NFPA.

SECTION 902 – GROUP (E) EDUCATIONAL OCCUPANCIES

902-01 Clothing and personal effects shall not be stored in corridors and lobbies.

Exceptions:

- a. Corridors protected by an approved automatic sprinkler system installed in accordance with NFPA 13.
- b. Corridors protected by an approved smoke detection system installed in accordance with NFPA 72.
- c. Storage in metal lockers provided the minimum required egress width is maintained.

902-02 Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area.

SECTION 903 – DECORATIVE VEGETATION

903-01 Natural cut trees, are not permitted within any building/facility on post.

Exceptions:

- a. Natural trees shall be permitted within dwelling units.

903-02 The required width of any portion of a means of egress shall not be obstructed by decorative vegetation.

903-03 Candles and open flames shall not be used on or near decorative vegetation.

903-04 The use of unlisted electrical wiring and lighting on decorative vegetation shall be prohibited.

903-05 Artificial decorative vegetation shall be flame resistant or flame retardant. Such flame retardance shall be documented and certified by the manufacturer in an approved manner.

SECTION 904 – DECORATIONS AND TRIM

904-01 In occupancies of Assembly and dormitories, curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall be flame resistant and NFPA 701 compliant or be noncombustible.

904-02 The permissible amount of noncombustible decorative material shall not be limited.

904-03 The permissible amount of flame-resistant decorative materials shall not exceed 10 percent of the aggregate area of walls and ceilings.

Exception:

- a. In auditoriums, the permissible amount of flame-resistant decorative

material shall not exceed 50 percent of the aggregate area of walls and ceiling where the building is equipped throughout with an automatic sprinkler system in accordance with NFPA 13.

904-04 Where required to be flame resistant, decorative materials shall be tested by an approved agency and pass Test 1 or 2, as described in NFPA 701, or such materials shall be noncombustible. Reports of test results shall be prepared in accordance with NFPA 701 and furnished to the Fire Inspector for review.

904-05 Foam plastic used as interior trim shall have a minimum density of 20 pounds per cubic foot.

904-06 Foam Plastic shall have a thickness of 0.5 inch and the maximum width shall be 8 inches.

904-07 The interior trim shall not constitute more than 10 percent of the aggregate wall and ceiling area of a room or space.

904-08 The flame spread rating shall not exceed 75 where tested in accordance with ASTM E 84. The smoke-developed index shall not be limited.

904-09 Pyroxylin Plastic. Imitation leather or other material, consisting of or coated with a pyroxylin or similarly hazardous base, shall not be used in Assembly Occupancies.

904-10 Pyroxylin plastic material used as interior trim shall have a minimum Class C flame spread index and smoke-developed index. Combustible trim, excluding handrails and guardrails, shall not exceed 10 percent of the aggregate wall or ceiling area in which it is located.

SECTION 905 – INTERIOR FINISH AND DECORATIVE MATERIALS

905-01 The provisions of this section shall limit the allowable flame spread and smoke development of interior finishes and decorative materials in existing buildings based on location and occupancy classification.

905-02 Cellular or foam plastics shall not be used as interior finish or trim.

Exceptions:

- a. Cellular or foam plastic materials shall be permitted on the basis of fire tests that substantiate their combustibility characteristics for the use intended under actual fire conditions.
- b. Cellular or foam plastic shall be permitted for trim not in excess of 10 percent of the wall or ceiling area, provided such trim is not less than 20 pounds per cubic foot in density, is limited to 0.5 inch in thickness and 8 inches in width, and complies with the requirements for Class A or B interior wall and ceiling finish except that the smoke rating shall not be limited.

905-03 No decorations or other objects shall be placed to obstruct exits, access thereto, egress there from, or visibility thereof.

905-04 Interior wall and ceiling finishes shall be classified as listed below. Such interior finishes shall be grouped in the following classes in accordance with their flame spread and smoke-developed index.

Class A: Flame Spread Index 0-25
Smoke-Developed Index 0-450

Class B: Flame Spread Index 26-75

Smoke-Developed Index 0-450

Class C: Flame Spread Index 76-200
Smoke-Developed Index 0-450

905-05 Interior wall or ceiling finishes other than textiles. Interior wall or ceiling finishes, other than textiles, shall be permitted to be tested in accordance with NFPA 286.

905-06 Interior wall and ceiling finish not in excess of 10 percent of the aggregate wall and ceiling areas of any room or space shall be permitted to be Class C materials.

905-07 expanded vinyl wall coverings. Expanded vinyl wall coverings shall comply with the requirements for textile wall and ceiling materials.

**CHAPTER 10
FIRE PROTECTION SYSTEMS**

SECTION 1001 – COMMERCIAL COOKING EQUIPMENT

1001-01 Portable fire extinguishers shall be provided within a 30-foot travel distance of commercial-type cooking equipment. Cooking equipment involving vegetable or animal oils and fats shall be protected by a Class K rated portable extinguisher.

1001-02 Hoods, grease-removal devices, fans, ducts and other appurtenances shall be cleaned every 6 months or as deemed necessary by the Fire Chief or his representative to prevent the accumulation of grease. Cleanings shall be recorded, and records shall state the extent, time and date of cleaning. Such records shall be maintained on the premises and provided to the Fire Prevention Inspector upon request.

SECTION 1002 – STANDPIPE SYSTEMS

1002-01 Cabinets containing firefighting equipment, such as standpipes, fire hose, fire extinguishers or fire department valves, shall not be blocked from use or obscured from view.

1002-02 Cabinets shall be identified in an approved manner by a permanently attached sign with letters not less than 2 inches high in a color that contrasts with the background color, indicating the equipment contained therein.

1002-03 Cabinets shall be unlocked.

SECTION 1003 – PORTABLE FIRE EXTINGUISHERS

1003-01 Extinguishers shall be located in conspicuous locations where they will be readily accessible and immediately available for use. These locations shall be along normal paths of travel, unless the Fire Inspector determines that the hazard posed indicates the need for placement away from normal paths of travel.

1003-02 Fire extinguishers shall not be obstructed or obscured from view. In rooms or areas in which visual obstruction cannot be completely avoided, means shall be provided to indicate the locations of extinguishers.

1003-03 Hand-held portable fire extinguishers, not housed in cabinets, shall be installed on approved hangers or brackets. Hangers or brackets shall be securely anchored to the mounting surface in accordance with the manufacturer's installation instructions.

1003-04 Cabinets used to house fire extinguishers shall not be locked.

Exceptions:

Where fire extinguishers subject to malicious use or damage are provided with a means of ready access.

1003-05 Portable fire extinguishers having a gross weight not exceeding 40 pounds shall be installed so that its top is not more than 5 feet above the floor. Hand-held portable fire extinguishers having a gross weight exceeding 40 pounds shall be installed so that its top is not more than 3.5 feet above the floor. The clearance between the floor and the bottom of installed hand-held extinguishers shall not be less than 4 inches.

1003-06 wheeled fire extinguishers shall be conspicuously located in a designated location.

1003-07 Fire Prevention personnel will determine the type, number, distribution, and placement of portable fire extinguishers as outlined in NFPA 10 entitled Portable Fire Extinguishers

1003-08 The Building Commandant will contact the Fire Prevention Office if any fire extinguishers have been used to extinguish a fire, are accidentally discharged, have broken seals and/or missing pins or become inoperative.

1003-09 Fire extinguishers will be inspected monthly and documented by the Building Commandant or his representative. Documentation can be accomplished by annotating tags on the devices, annotating forms or log books or by computer automation. These records shall be made available to any F&ESD member upon request.

SECTION 1004 – FIRE DEPARTMENT CONNECTIONS

1004-01 immediate access to fire department connections shall be maintained at all times and without obstruction by fences, bushes, trees, walls or any other object for a minimum of 3 feet.

1004-02 A metal sign with raised letters at least 1 inch in size shall be mounted on all fire department connections serving fire sprinklers, standpipes or fire pump connections. Such signs shall read: **AUTOMATIC SPRINKLERS** or **STANDPIPES** or **TEST CONNECTION** or a combination thereof as applicable.

SECTION 1005 – FIRE PUMPS

1005-01 Suitable means shall be provided for maintaining the temperature of a pump room or pump house, where required, above 40°F (5°C).

SECTION 1006 – SPRINKLER SYSTEMS

1006-01 The painting of sprinkler heads or cover plates is not authorized unless done at the sprinkler manufacturing facility. They cannot be cleaned of paint and must be replaced.

1006-02 Storage shall be maintained 24 inches or more below the ceiling in a non-sprinkle red building and 18 inches or more from a sprinkler head deflector in a sprinkle red building.

1006-03 Storage is not authorized in the sprinkler riser (mechanical) room.

1006-04 If a sprinkler riser is not located within a dedicated sprinkler riser (mechanical) room, a clearance of 36 inches

must be maintained to include Ballard protection to prevent damage.

1006-05 Ceiling tiles and escutcheon plates must be in place in order for the sprinkler head to properly provide adequate coverage.

1006-06 All areas of the building containing water-filled piping shall be maintained at a minimum temperature of 40°F.

SECTION 1007 – FIRE HYDRANTS

1007-01 Fire hydrants will not be used by any person other than F&ESD personnel or Water Department personnel, except when permission is granted by the Fire Chief or a Water Department designated representative.

1007-02 Access to fire hydrants and post indicator valves will be maintained by a clearance of at least 15 feet. Parking vehicles or equipment within 15 feet of a fire hydrant or fire department connection is prohibited.

1007-03 Items such as trees, bushes, signs, fences, dumpsters, trash or any other obstacles will not obstruct or conceal a fire hydrant, post indicator valve, sprinkler system or standpipe connection.

1007-04 Tampering with fire hydrants, post indicator valves, sprinkler system or standpipe connections such as removing caps, covering up or turning them on or off is strictly prohibited.

1007-05 Water mains and fire hydrants will not be shut off, nor will any maintenance be performed that could interfere with the water supply without prior notification of the Fire Chief (at least 24 hours' notice). Exception to this will be only when emergency work to repair these systems is required.

1007-06 The DPW water department will notify the Fire Chief of proposed water curtailments which affect fire hydrants. The water department will also identify inactive/defective fire hydrants by placing the appropriate "OUT OF SERVICE" placard on the hydrant.

1007-07 The Fire Department shall conduct annual flow testing of all fire hydrants on the installation in accordance with applicable National Standards.

SECTION 1008 – FIRE ALARM & DETECTION

1008-01 All systems, devices and equipment to detect a fire, actuate an alarm, or suppress or control a fire or any combination thereof shall be maintained in an operable condition at all times in accordance with applicable National Fire Protection Association Standard.

1008-02 Smoke alarms. Single or multiple-station smoke alarms shall be installed and maintained in all of the following locations:

- a. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
- b. In each room used for sleeping purposes.
- c. In each story within a dwelling unit, including basements and cellars but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level, provided that the lower level is less than one full story below the upper level.

1008-03 Power source. Smoke alarms shall receive their primary power from the building wiring, provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

1008-04 Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Exceptions:

- a. Interconnection is not required in buildings which are not undergoing alterations, repairs or construction of any kind.
- b. Smoke alarms in existing areas are not required to be interconnected where alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes.

CHAPTER 11 MEANS OF EGRESS

SECTION 1100 – GENERAL CONDITIONS

1100-01 Buildings or portions thereof shall be provided with a means of egress system as required by this chapter. The provisions of this chapter shall control the means of

egress components (exit access, exit, and exit discharge to the public way).

1100-02 It shall be unlawful to alter a building or structure in a manner that will reduce the number of exits or the capacity of the means of egress without the approval of the Fire Chief.

1100-03 Fire Doors shall not be secured in the open position at any time.

Exception:

- a. An approved hold open device is utilized as per NFPA 101.

1100-04 If any portion or thereof of a means of egress becomes deficient the Building Commandant will ensure immediate corrective action is taken to correct the problem.

SECTION 1101 – GENERAL MEANS OF EGRESS

1101-01 A free-standing object mounted on a post or pylon shall not overhang that post or pylon more than 12 inches where the lowest point of the leading edge is more than 27 inches and less than 80 inches above the walking surface. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches, the lowest edge of such sign or obstruction shall be 27 inches maximum or 80 inches minimum above the finish floor or ground.

Exception:

- a. This requirement shall not apply to sloping portions of handrails serving stairs and ramps.

1101-02 Horizontal projections. Structural elements, fixtures or furnishings shall not project horizontally from either side more than 4 inches over any walking surface

between the heights of 27 inches and 80 inches above the walking surface.

Exception:

- a. Handrails serving stairs and ramps are permitted to protrude 4.5 inches from the wall.

1101-03 Floor Surface. Walking surfaces of the means of egress shall have a slip-resistant surface and be securely attached.

1101-04 Means of Egress Continuity. The path of egress travel along a means of egress shall not be interrupted by any building element other than a means of egress component as specified in this chapter. Obstructions shall not be placed in the required width of a means of egress except projections permitted by this chapter. The required capacity of a means of egress system shall not be diminished along the path of egress travel.

Section 1102 – Occupant Load

1102-01 Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or authorized agent. Calculations for occupant load shall be done by the Fire Chief or his representative.

SECTION 1103 – EGRESS WIDTH

1103-01 The means of egress width shall not be less than required 44 inches. The total width of means of egress in inches shall not be less than the total occupant load served by the means of egress. Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity to less than 50 percent of

the required capacity. The maximum capacity required from any story of a building shall be maintained to the termination of the means of egress.

1103-02 Doors opening into the path of egress travel shall not reduce the required width to less than one-half during the course of the swing. When fully open, the door shall not project more than 7 inches into the required width.

SECTION 1104 – MEANS OF EGRESS ILLUMINATION

1104-01 The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

Exceptions:

Storage units having less than 225 square feet.

Aisle access ways in Assembly Occupancies.

Dwelling units and sleeping units in Residential Occupancies.

1104-02 The means of egress illumination level shall not be less than 1 foot-candle at the floor level.

SECTION 1105 – DOORS, GATES AND TURNSTILES

1105-01 Egress doors shall be side-hinged swinging. Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more. The opening force for interior side-swinging doors without closers shall not exceed a 5 pound force. For other side-swinging, sliding and folding doors, the door latch shall release when subjected to a 15 pound force. The door shall be set in motion when subjected to a 30 pound force. The door shall swing to a full-open position

when subjected to a 15 pound force. Forces shall be applied to the latch side.

1105-02 Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

1105-03 Where panic and fire exit hardware is installed, it shall comply with the following:

- a. The actuating portion of the releasing device shall extend at least one-half of the door leaf width.
- b. A maximum unlatching force of 15 pounds. Each door in a means of egress from an occupancy of Group A or E having an occupant load of 100 or more shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware. If balanced doors are used and panic hardware is required, the panic hardware shall be the push-pad type and the pad shall not extend more than one-half the width of the door measured from the latch side.

SECTION 1106 – EXIT SIGNS

1106-01 Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. Access to exits shall be marked by readily visible exit signs in cases where the exit or the path of egress travel is not immediately visible to the occupants. Exit sign placement shall be such that no point in an exit access corridor is more than 100 feet or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign.

Exceptions:

- a. Exit signs are not required in rooms or areas which require only one exit or exit access.
- b. Main exterior exit doors or gates which obviously and clearly are identifiable as exits need not have exit signs where approved by the fire code official.
- c. Exit signs are not required in occupancies in storage sheds less than 225 square feet and individual sleeping units or dwelling units in Residential Occupancies.

1106-02 Exit signs shall be internally or externally illuminated.

1106-03 Externally illuminated exit signs shall comply with Sections 1106-3 through 1106-6.

1106-04 Every exit sign and directional exit sign shall have plainly legible letters not less than 6 inches high with the principal strokes of the letters not less than 0.75 inch wide. The word "EXIT" shall have letters having a width not less than 2 inches wide except the letter "I," and the minimum spacing between letters shall not be less than 0.375 inch. Signs larger than the minimum established in this section shall have letter widths, strokes and spacing in proportion to their height. The word "EXIT" shall be in high contrast with the background and shall be clearly discernible when the exit sign illumination means is or is not energized. If an arrow is provided as part of the exit sign, the construction shall be such that the arrow direction cannot be readily changed.

1106-05 The face of an exit sign illuminated from an external source shall have an intensity of not less than 5 foot-candles.

1106-06 Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator.

Exception:

Approved exit sign illumination means that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency electrical system.

SECTION 1107 – EXIT ACCESS

1107-01 Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy, and provide a discernible path of egress travel to an exit.

1107-02 Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

1107-03 An exit access shall not pass through a room that can be locked to prevent egress.

1107-04 Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.

SECTION 1108 – EXIT AND EXIT ACCESS DOORWAYS

1108-01 Two exits or exit access doorways from any space shall be provided where one of the following conditions exists:

- a. The occupant load of the space exceeds 50.
- b. The common path of egress travel exceeds 200 feet for a sprinklered building or 250 feet for an unsprinklered building.

SECTION 1109 – CORRIDORS

1109-01 The minimum corridor width shall not be less than 44 inches.

Exceptions:

- a. Twenty-four inches for access to and utilization of electrical, mechanical or plumbing systems or equipment.
- b. Thirty-six inches with a required occupant capacity of 50 or less.
- c. Thirty-six inches within a dwelling unit.
- d. Seventy-two inches in educational facilities with a corridor having a required capacity of 100 or more.
- e. Seventy-two inches in corridors serving health care centers for ambulatory patients receiving outpatient medical care, which causes the patient to be not capable of self-preservation.

1109-02 Dead Ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that there are no dead ends in corridors more than 20 feet in length.

Exceptions:

- a. In occupancies where the building is equipped throughout with an automatic sprinkler system, the length of dead-end corridors shall not exceed 50 feet.

- b. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

SECTION 1110 – EXITS

1110-01 Exits shall be continuous from the point of entry into the exit to the exit discharge (public way).

SECTION 1111 – EXIT DISCHARGE

1111-01 Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide direct access to grade. The exit discharge shall not reenter a building.

1111-02 Access to a Public Way. The exit discharge shall provide a direct and unobstructed access to a public way.

SECTION 1112 – MAINTENANCE OF THE MEANS OF EGRESS

1112-01 The means of egress for buildings or portions thereof shall be maintained in accordance with this section.

1112-02 Required exit accesses, exits or exit discharges shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency. Security devices affecting means of egress shall be subject to approval of the Fire Chief or dually authorized representative.

1112-03 A means of egress shall be free from obstructions to the public way that would prevent its use, including the accumulation of snow and ice.

1112-04 Furnishings, decorations or other objects shall not be placed so as to obstruct exits, access thereto, egress there from, or visibility thereof. Hangings and draperies shall not be placed over exit doors or otherwise be located to conceal or obstruct an exit. Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of exit.

1112-05 Emergency Escape Openings. Required emergency escape openings shall be maintained in accordance with the code in effect at the time of construction, and the following: Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates or similar devices are allowed to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.

CHAPTER 12 ELECTRICAL INSTALLATION, APPLIANCES, AND HEATING EQUIPMENT

SECTION 1200 - GENERAL

1200-01 All electrical services and installations will conform to the NFPA Standard 70, National Electrical Code. Only DPW electricians and contract service electricians or licensed individuals may alter/repair electrical wiring, outlets, etc.

1200-02 All switch/outlet receptacles, fuse/circuit breakers, and junction boxes must have suitable cover plates.

1200-03 Fuses/Circuit breakers will not be bridged, bypassed, or replaced with one of a larger capacity to prevent tripping, or secured in the OPEN position.

1200-04 All portable extension cords will be equipped with nonconductive plugs and kept in good condition.

1200-05 Extension cords will not be used in lieu of permanent electrical wiring or interconnected.

1200-06 Extension cords will not be spliced or taped nor draped over nails or metal objects, run through windows or doors, under rugs, or be placed or fixed in a way that may subject the wiring to physical damage.

1200-07 The use of surge protectors (units equipped with integrated circuit breaker) and extension cords, in combination, is prohibited. Interconnection of surge protectors is prohibited. Surge protectors (transit voltage surge suppressor) will only be used for the purpose of connecting electronic/computer equipment.

1200-08 Worn or deteriorated electrical cords will be removed from service and replaced immediately. Broken receptacles shall be replaced.

1200-09 All extension cords must be of commercial grade and sufficient gauge to carry the ampere load of the attached equipment without heating the extension cords, plugs or other components.

1200-10 Extension cords must be Underwriter's Laboratory (UL) or Factory Mutual (FM) approved.

1200-11 Explosion proof electrical equipment will be used in hazardous locations where flammable gases/vapors are present and as required by the National Electric Code.

1200-12 Heat producing appliances, such as coffeepots, will be disconnected from wall outlets when no longer in use. Automatic timing devices will not be used even if they are built into the appliance.

1200-13 Cooking with conventional high heat producing appliances is prohibited in all buildings except those having specific areas designated as kitchen facilities.

1200-14 Microwave ovens are permitted in all facilities when approved by the Unit Commander.

1200-15 The use of portable electric space heaters is permitted as long as the heater has the UL or FM seal of approval and safety shut-off (tip switch) switch is working properly.

1200-16 Open element electrical heaters not equipped with an operable tip switch are prohibited from use.

1200-17 Open element electrical or gas-fired heaters are prohibited in areas susceptible to explosive/flammable vapors, gases, or dust.

1200-18 Gas-fired portable heaters are only authorized for use in construction areas. The Fire Prevention Office must approve the use of all gas-fired portable heaters prior to their use.

1200-19 Only assigned/qualified heating maintenance personnel are authorized to adjust gas-fired heaters or boilers.

1200-20 A minimum clearance of 36 inches will be maintained between electrical heaters and combustible materials.

1200-21 A minimum clearance of 36 inches will be maintained in front of electrical panels, sprinkler risers, and fire alarm panel.

CHAPTER 13 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

SECTION 1300 – GENERAL REQUIREMENTS

1300-01 This chapter shall apply to structures in the course of construction, alteration, or demolition, including those in underground locations. Compliance with NFPA 241 is required for items not specifically addressed herein.

1300-02 This chapter prescribes minimum safeguards for construction, alteration, and demolition operations to provide reasonable safety to life and property from fire during such operations.

SECTION 1301 – TEMPORARY HEATING EQUIPMENT

1301-01 Temporary heating devices shall be listed and labeled in accordance with the UL or Factory Mutual. Installation, maintenance and use of temporary heating devices shall be in accordance with the terms of the listing.

1301-02 Clearance to combustibles from temporary heating devices shall be maintained in accordance with the labeled equipment. When in operation, temporary heating devices shall be fixed in place and

protected from damage, dislodgement or overturning in accordance with the manufacturer's instructions.

1301-03 The use of temporary heating devices shall be supervised and maintained only by competent personnel.

1301-04 The use of temporary heating equipment shall comply with West Point F&ESD Hot Work Policy, Chapter 16.

SECTION 1302 – PRECAUTIONS AGAINST FIRE

1302-01 Smoking shall be prohibited except in approved areas. Signs shall be posted.

1302-02 Combustible debris shall not be accumulated within buildings. Combustible debris, rubbish and waste material shall be removed from buildings at the end of each shift of work. Combustible debris, rubbish and waste material shall not be disposed of by burning on the site unless approved.

1302-03 Open burning shall comply with Welding, Cutting and Other HOT WORK Chapter 16.

1302-04 Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container.

1302-05 When required by the fire code official for building demolition that is hazardous in nature, qualified personnel shall be provided to serve as an on-site fire watch. Fire watch personnel shall be provided with at least one approved means for notification of the fire department and their sole duty shall be to perform constant patrols and watch for the occurrence of fire.

1302-06 Operations involving the use of cutting and welding shall be done in accordance with Chapter 16.

1302-07 Temporary wiring for electrical power and lighting installations used in connection with the construction, alteration or demolition of buildings, structures, equipment or similar activities shall comply with NFPA 70.

SECTION 1303 – FLAMMABLE AND COMBUSTIBLE LIQUIDS

1303-01 The storage, use and handling of flammable and combustible liquids at construction sites shall be in accordance with Section 1303 and Chapter 19. Ventilation shall be provided for operations involving the application of materials containing flammable solvents.

1303-02 Flammable and combustible liquid storage areas shall be maintained clear of combustible vegetation and waste materials. Such storage areas shall not be used for the storage of combustible materials.

1303-03 Sources of ignition and smoking shall be prohibited in flammable and combustible liquid storage areas. Signs shall be posted.

1303-04 Handling at Point of Final Use. Class I and II liquids shall be kept in approved safety containers.

1303-05 Leaking vessels shall be immediately repaired or taken out of service and spills shall be cleaned up and disposed of properly. Notify the West Point F&ESD immediately.

SECTION 1304 – FIRE ALARM REPORTING

1304-01 Readily accessible emergency telephone facilities shall be provided in an approved location at the construction site. The street address of the construction site and the emergency telephone number of the Fire Department shall be posted adjacent to the telephone.

SECTION 1305 – ACCESS FOR FIRE FIGHTING

1305-01 Required Access. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

1305-02 Key boxes shall be provided as required by Chapter 7 Section 702.

SECTION 1306 – MEANS OF EGRESS

1306-01 Stairways Required. Where a building has been constructed to a height greater than 50 feet or 4 stories, or where an existing building exceeding 50 feet high is altered, at least one temporary lighted stairway shall be provided unless one or more of the permanent stairways are erected as the construction progresses.

1306-02 Required means of egress shall be maintained during construction and demolition, remodeling or alterations and additions to any building.

Exception:

- a. Approved temporary means of egress systems and facilities.

SECTION 1307 – WATER SUPPLY FOR FIRE PROTECTION

1307-01 An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site.

SECTION 1308 – STANDPIPES

1308-01 Buildings four or more stories in height shall be provided with not less than one standpipe for use during construction. Such standpipes shall be installed when the progress of construction is not more than 40 feet in height above the lowest level of fire department access. Such standpipe shall be provided with fire department hose connections at accessible locations adjacent to usable stairs. Such standpipes shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

SECTION 1309 – PORTABLE FIRE EXTINGUISHERS

1309-01 Structures under construction, alteration or demolition shall be provided with not less than one approved portable fire extinguisher and sized for not less than ordinary hazard as follows:

- a. At each stairway on all floor levels where combustible materials have accumulated.
- b. In every storage and construction shed.
- c. Additional portable fire extinguishers shall be provided where special hazards exist including, but not limited to, the

storage and use of flammable and combustible liquids.

SECTION 1310 – SAFEGUARDING ROOFING OPERATIONS

1310-01 Roofing operations utilizing heat-producing systems or other ignition sources shall be in compliance with Chapter 16.

1310-02 Asphalt and tar kettles shall be operated in accordance with Chapter 6 Section 600.

1310-03 Fire extinguishers shall be present and be not less than one multi-purpose portable fire extinguisher with a minimum 3-A 40-B: C rating on the roof being covered or repaired.

**CHAPTER 14
MOTOR FUEL-DISPENSING
FACILITIES AND REPAIR GARAGES**

SECTION 1400 – REPAIR GARAGES

1400-01 Repair garages shall comply with this section and the latest edition of the UFC (3-600-01). Where a repair garage also includes a motor fuel-dispensing facility, the fuel-dispensing operation shall comply with the requirements of this chapter for motor fuel-dispensing facilities.

1400-02 Storage and use of flammable and combustible liquids. The storage and use of flammable and combustible liquids in repair garages shall comply with Chapter 19.

1400-03 Cleaning of parts shall be conducted in listed and approved parts-cleaning machines.

1400-04 Waste oil, motor oil and other Class IIIB liquids. Waste oil, motor oil and other Class IIIB liquids shall be stored in

approved tanks or containers, which are allowed to be stored and dispensed from inside repair garages as long as they are stored in a fire proof cabinet that is UL or Factory Mutual approved. Tanks storing Class IIIB liquids in repair garages are allowed to be located at, below or above grade, provided that adequate drainage or containment is provided. Crankcase draining's shall be classified as Class IIIB liquids unless otherwise determined by testing.

1400-05 Drainage and disposal of liquids and oil-soaked waste. Garage floor drains, where provided, shall drain to approved oil separators or traps discharging to a sewer. Contents of oil separators, traps and floor drainage systems shall be collected at sufficiently frequent intervals and removed from the premises to prevent oil from being carried into the sewers. Crankcase draining and liquids shall not be dumped into sewers, streams or on the ground, but shall be stored in approved tanks or containers until removed from the premises. Self-closing metal cans shall be used for oily waste.

1400-06 Sources of ignition shall not be located within 18 inches of the floor.

1400-07 Smoking shall not be permitted in repair garages except in approved areas located outside the building in compliance with previous chapters of this document.

1400-08 Ventilation. Where Class I liquids or LP-gas are stored or used within a building having a basement or pit wherein flammable vapors could accumulate, the basement or pit shall be provided with mechanical ventilation, at a minimum rate of 1.5 cubic feet per minute per square foot to prevent the accumulation of flammable vapors.

1400-09 Preparation of Vehicles for Repair. For vehicles powered by gaseous fuels, the fuel shutoff valves shall be closed prior to repairing any portion of the vehicle fuel system. Vehicles powered by gaseous fuels in which the fuel system has been damaged shall be inspected and evaluated for fuel system integrity prior to being brought into the repair garage. The inspection shall include testing of the entire fuel delivery system for leakage.

1400-10 Fire extinguishers shall be provided in accordance with Chapter 10 Section 1003.

SECTION 1401 – DISPENSING OPERATIONS

1401-01 Supervision of Dispensing. The dispensing of fuel at motor fuel-dispensing facilities shall be conducted by a qualified attendant or shall be under the supervision of a qualified attendant at all times.

1401-02 Operating Instructions. Dispenser operating instructions shall be conspicuously posted in approved locations on every dispenser.

1401-03 Emergency Procedures. An approved emergency procedures sign shall be posted in a conspicuous location and shall read:

IN CASE OF FIRE, SPILL OR RELEASE

- a. USE EMERGENCY PUMP SHUTOFF
- b. REPORT THE ACCIDENT!
- c. FIRE DEPARTMENT
- d. TELEPHONE NO.
- e. FACILITY ADDRESS

1401-04 A telephone not requiring a coin to operate or other approved, clearly identified

means to notify the fire department shall be provided on the site.

1401-05 Dispensing into Portable Containers. The dispensing of flammable or combustible liquids into portable approved containers shall comply with DA regulations.

SECTION 1402 – OPERATIONAL REQUIREMENTS

1402-01 Spill Control. Provisions shall be made to prevent liquids spilled during dispensing operations from flowing into buildings. Acceptable methods include, but shall not be limited to, grading driveways, raising doorsills, or other approved means. A spill control plan shall be posted in a conspicuous location.

1402-02 Sources of Ignition. Smoking and open flames shall be prohibited in areas where fuel is dispensed. The engines of vehicles being fueled shall be shut off during fueling. Electrical equipment shall be in accordance with the NFPA 70, National Electrical Code.

1402-03 Fire Extinguishers. Approved portable fire extinguishers complying with NFPA 10 with a minimum rating of 2-A:20-B:C shall be provided and located such that an extinguisher is not more than 75 feet from pumps, dispensers or storage tank fill-pipe openings.

1402-04 Warning signs shall be conspicuously posted within sight of each dispenser in the fuel-dispensing area and shall state the following:

- a. It is illegal and dangerous to fill unapproved containers with fuel.
- b. Smoking is prohibited.

- c. The engine shall be shut off during the refueling process.
- d. Portable containers shall not be filled while located inside the trunk, passenger compartment, or truck bed of a vehicle.

1402-05 An emergency shut off for the fuel pumps shall not be blocked or impeded by storage of material.

Section 1403 – Flammable and Combustible Liquid Motor Fuel-Dispensing Facilities

1403-01 Dispenser Hose. Dispenser hoses shall be a maximum of 18 feet in length unless otherwise approved. Dispenser hoses shall be listed and approved. When not in use, hoses shall be reeled, racked or otherwise protected from damage.

1403-02 Breakaway Devices. Dispenser hoses for Class I and II liquids shall be equipped with a listed emergency breakaway device designed to retain liquid on both sides of a breakaway point. Such devices shall be installed and maintained in accordance with the manufacturer’s instructions. Where hoses are attached to hose-retrieving mechanisms, the emergency breakaway device shall be located between the hose nozzle and the point of attachment of the hose-retrieval mechanism to the hose.

**CHAPTER 15
TENTS, CANOPIES AND OTHER
MEMBRANE STRUCTURES**

**SECTION 1500 – TEMPORARY AND
PERMANENT TENTS AND MEMBRANE
STRUCTURES**

1500-01 all tents, canopies and membrane structures, both temporary and permanent, shall be in accordance with this section.

1500-02 A certificate executed by an approved testing laboratory, certifying that the tents, canopies and membrane structures and their appurtenances, sidewalls, drops and tarpaulins, floor coverings, bunting, combustible decorative materials and effects, including sawdust when used on floors or passageways, shall be composed of flame-resistant material or shall be treated with a flame retardant in an approved manner and meet the requirements for flame resistance as determined in accordance with NFPA 701.

1500-03 Membrane structures, tents or canopies shall have a permanently affixed label bearing the identification of size and fabric or material type.

1500-04 Certification. An affidavit or affirmation shall be submitted to the Fire Chief or dually authorized representative and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit shall attest to the following information relative to the flame resistance of the fabric:

- Names and address of the owners of the tent, canopy or air-supported structure.
- Date the fabric was last treated with flame-resistant solution.
- Trade name or kind of chemical used in treatment.
- Name of person or firm treating the material.
- Name of testing agency and test standard by which the fabric was tested.

1500-05 Hay, straw, shavings or similar combustible materials shall not be located within any tent, canopy or membrane structure containing an assembly occupancy, except the materials necessary for the daily

feeding and care of animals. Sawdust and shavings utilized for a public performance or exhibit shall not be prohibited provided the sawdust and shavings are kept damp.

Combustible materials shall not be permitted under stands or seats at any time. The areas within and adjacent to the tent or air-supported structure shall be maintained clear of all combustible materials or vegetation that could create a fire hazard within 20 feet from the structure. Combustible trash shall be removed at least once a day from the structure during the period the structure is occupied by the public.

1500-06 Smoking shall not be permitted in tents, canopies or membrane structures. Approved “No Smoking” signs shall be conspicuously posted.

1500-07 Open flame or other devices emitting flame, fire or heat or any flammable or combustible liquids, gas, charcoal or other cooking device or any other unapproved devices shall not be permitted inside or located within 20 feet of the tent, canopy or membrane structures while open to the public unless approved by the Fire Chief or dually authorized representative.

1500-08 Fireworks shall not be used within 100 feet of tents, canopies or membrane structures.

1500-09 Portable fire extinguishers shall be provided in accordance with NFPA 10.

1500-10 Heating and cooking equipment that does not produce a flame or grease laden vapors shall be in accordance with this section.

1500-11 Heating or cooling equipment, tanks, piping, hoses, fittings, valves, tubing and other related components shall be

installed as specified by the manufacturer recommendations and shall be approved by the Fire Chief or dually authorized representative.

1500-12 Cooking and heating equipment shall not be located within 20 feet of exits or combustible materials.

1500-13 Operations such as warming of foods, cooking demonstrations and similar operations that use solid flammables, butane or other similar devices which do not pose an ignition hazard, shall be approved.

1500-14 Outdoor cooking that produces sparks or grease-laden vapors shall not be performed within 20 feet from a tent, canopy or membrane structure.

CHAPTER 16 WELDING, CUTTING AND OTHER HOT WORK

SECTION 1600 – GENERAL REQUIREMENTS

1600-01 Welding, cutting, and brazing and other spark producing operations will be conducted in accordance with NFPA Standard 51B; Welding and Cutting. When welding operations are conducted outside of an approved welding shop, the Fire Prevention Office prior to the start of any operation will issue DA Form 5383-R, Hot Work Permit.

1600-02 The supervisor in charge of the operation is responsible for obtaining the proper forms from the Fire Prevention Office. Operations will not commence until approval has been given by the Fire Prevention Office. The supervisor in charge of the operation is responsible for compliance with the precautions and instructions outlined on the permit and as directed by the Fire Prevention Inspector.

1600-03 F&ES, 938-3151 or 938-4646 will be notified prior to starting any welding, cutting, brazing, or soldering operation. Before Hot Work Permits can be issued, the following conditions shall be met where applicable.

- a. All Class A combustibles will be removed or swept away for a radius of 35 feet. All Class B combustible and flammable liquids will be removed a radius of 50 feet.
- b. Combustible floors (except wood on concrete) shall be kept wet, covered with damp sand or covered with a fire resistive shield or drop cloth. Where floors have been wet down, personnel operating arc welding or cutting equipment shall be protected from possible shock.
- c. Openings or cracks in walls, floors or ducts within 35 feet of the site shall be tightly covered with fire resistive or non-combustible material to prevent the passage of sparks to adjacent areas.
- d. Conveyor systems that might carry sparks to distant combustibles shall be shielded.
- e. If hot work is to be done near walls, partitions, ceilings, or roofs of combustible construction, fire-retardant shields or guards shall be provided to prevent ignition.
- f. If hot work is to be done on a wall, partition, ceiling, or roof, precautions shall be taken to prevent ignition of combustibles on the other side by relocating combustibles. If it is impractical to relocate combustibles,

a fire watch on the opposite side from the work shall be provided by the organization or contractor performing the work.

- g. Hot work shall not be attempted on a partition, wall, ceiling, or roof that has a combustible covering or insulation, or on walls or partitions of combustible sandwich-type panel construction.
- h. Hot work that is performed on pipes or other metal that is in contact with combustible walls, partitions, ceilings, roofs, or other combustibles shall not be undertaken if the work is close enough to cause ignition by conduction.
- i. Fully charged fire extinguishers appropriate for the type of work being conducted shall be available immediately in the work area.
- j. If hot work is done in close proximity to a sprinkler head, a wet rag shall be laid over the head and then removed at the conclusion of the welding or cutting operation.
- k. Nearby personnel shall be suitably protected against heat, sparks, slag, etc.
- l. Before welding or cutting on flammable liquid tanks, cylinders, or containers which contained flammable liquids (compressed gas cylinders and pipelines are excluded), they will be thoroughly washed, steamed, and filled with water or rendered inert with nitrogen. Extreme care will be taken to eliminate the accumulation of vapors by proper venting or positioning of

the container during the filling operation.

- m. To ensure an explosive mixture does not exist, the area or tank will be sampled using flammable/explosive gas detector.
- n. When welding and cutting operations are completed, the area will be thoroughly and carefully checked to ensure no fire hazards exist for at least 30 minutes after operation is complete.

1600-04 Contractors shall be briefed on the contents of this chapter by Fire Prevention personnel before proceeding with any Hot-Work.

CHAPTER 17 AMMUNITION, EXPLOSIVES AND FIREWORKS

SECTION 1700 – GENERAL REQUIREMENTS

1700-01 the storage, handling, and maintenance of these materials will be in strict compliance with Army Pamphlet 385-64, U.S. Army Ammunition and Explosives Safety Program.

1700-02 A copy of all explosive safety licenses required by AR 385-64, US Army Explosive Safety Program, will be forwarded to the Fire Prevention Office. One copy will be maintained in the facility folder and one copy will be available in the central dispatch center.

CHAPTER 18 AVIATION FACILITIES

SECTION 1800 – GENERAL REQUIREMENTS

1800-01 It is the responsibility of the hangar chief or crew chief of the aircraft concerned to have adequate fire extinguishers available before performing any maintenance function.

1800-02 Refueling and defueling of an aircraft in a hangar is prohibited.

1800-03 An operating instruction covering removal of aircraft from hangars in case of fire will be provided by, and available to, personnel working in hangar area.

1800-04 The use of flammable solvents to clean aircraft is prohibited.

1800-05 Electrical fixtures and appliances will be of the type approved for these locations.

1800-06 Fire lanes will be maintained around all aircraft hangars to allow access of fire-fighting equipment.

1800-07 Fire doors separating hangar floor from shops and offices must be closed at all times and free from obstructions.

1800-08 Spray painting is prohibited in any hangar not specified as a paint/corrosion control facility.

1800-09 Gasoline powered air compressors will not be positioned in aircraft hangars.

1800-10 Vehicles not equipped with approved spark arrestors will not be operated inside hangars.

1800-11 Aircraft in hangars will have snatch blocks/harnesses or tow bars readily available to expedite aircraft removal in the event of an emergency.

1800-12 The parking of any type vehicle, including ground power units, support equipment, or components thereof, is prohibited inside hangars with the exception of vehicles loading and unloading materials/supplies.

CHAPTER 19 FLAMMABLE AND COMBUSTIBLE LIQUIDS STORAGE

SECTION 1900 – GENERAL REQUIREMENTS

1900-01 Positive control measures will be taken to keep flammable/combustible liquids and vapors from all sources of ignition. Specific guidance on the storage of flammable/combustible liquids is contained in NFPA Standard 30; Flammable and Combustible Liquids Code, and NFPA Standard 99; Chapter 10, Standard for Health Care Facilities. Requirements for the transportation of flammable and combustible liquids are contained in the US Department of Transportation (DOT) regulations or in NFPA 385, Standard for Tank Vehicles for Flammable and Combustible Liquids.

1900-02 Flammable liquids and other hazardous materials such as paints, spray paints, flammable thinners, gasoline, diesel fuel, etc., will be stored in an approved manner or in approved type containers.

- a. Only UL or DOT approved containers will be used for storing or handling flammable liquids. All flammable liquid containers must be clearly labeled with one inch lettering clearly identifying contents.
- b. Dispensing and storage containers, such as tanks and drums, will be bonded and grounded at all times.

- c. Nozzles used to dispense flammable liquids will be spring loaded or otherwise self-closing when hand pressure is released. Under no circumstances will they be wired, locked or bolted in the open position when dispensing flammable liquids.
- d. The use of cell phones and land mobile radios are prohibited while dispensing flammable or combustible liquids. Signs prohibiting the use of cell phones and land mobile radios will be placed at all gasoline/diesel filling stations and will be in plain sight. Signs should read, “The Use of Cell Phones and Radios are Prohibited. Turn Off all Devices Prior to Pumping Fuel.”
 - a. Exception:
 - i. Land mobile radios and cell phones that have been inspected and labeled, “INTRINSICALLY SAFE” are authorized.
 - ii. Containers of flammable/combustible liquids will remain tightly sealed, except when transferred, poured, or applied.
 - iii. Approved safety cans will be used for transporting and dispensing flammable/combustible liquids in quantities of five gallons or more. Fuel containers will not be filled while in vehicles (trunks of cars or beds of trucks). Fuel containers must be kept on the ground when filling.
 - iv. All cleaning tanks and vats will be equipped with self-closing metal lids with fusible links. Only approved solvents designated for the purpose of cleaning will be used in these tanks/vats.

1900-03 Flammable/combustible liquids stored inside buildings will be stored in flammable storage cabinets that comply with the requirements of NFPA Standard 30.

- a. Flammable storage cabinets will be labeled in conspicuous lettering which is visible from 50 feet away, "Flammable - Keep Fire Away."
- b. The use of flammable liquid storage cabinets is limited to those organizations whose primary work activity requires the use of flammable/combustible liquids on a daily basis.
- c. When not in use, all flammable/combustible liquids will be stored inside the storage cabinet and not more than a one-day supply will be outside the cabinet at any time.
- d. Flammable liquid storage cabinets will be limited to three cabinets per fire area.
- e. Flammable storage cabinets will have ventilation ports capped when inside a building and spark arrestor caps will be removed when storage cabinets are located outside a building.
- f. Storage in flammable liquid cabinets will be limited to flammable/combustible liquids only. All containers will have tight fitting lids or covers.
- g. Total quantities of flammable/combustible liquids permitted per storage cabinet will be IAW NFPA 30.

- h. Inventory sheets will be posted on the front of the storage cabinet, listing the contents stored within. Inventory sheets will be updated when contents change.

1900-04 the use of exterior flammable/combustible liquid storage facilities is limited to those organizations whose primary work activities use such liquids at least once a week.

- a. Exterior storage facilities will be located at least 50-feet away from other hazardous operations and identified with conspicuous lettering readable from 50-feet, "Flammable - Keep Fire Away." Exception: Storage facilities may be located adjacent to blank exterior walls having a two-hour fire rating.
- b. The exterior storage facility may be conventional metal or wooden lockers, sheds (metal, masonry, or wood), Conexus, or similar structures.
- c. The storage area must be protected against tampering or trespassers, and shall be kept free of weeds, debris, and other combustible materials not necessary to the storage.
- d. Exterior storage facilities may not exceed 500 gallons of flammable/combustible liquids, of which no more than 200 gallons may be Class I.

1900-05 All cylinders shall be properly nested together or chained to substantial object to prevent tip over.

CHAPTER 20 WAREHOUSE/STORAGE FACILITIES

SECTION 2000 – GENERAL REQUIREMENTS

2000-01 These facilities will meet the requirements set forth in DoD Regulation 4145.19-R-1, Storage and Materials Handling, and/or the National Fire Code. Buildings used for storage and warehouses will have aisles between stacks, racks, and stored materials. Stacks will be properly maintained to inhibit the spread of fire. The appropriate directives or Fire Prevention personnel will determine aisle width.

2000-02 Stored materials in all facilities will be kept at least 36 inches away from ceiling light fixtures, sprinkler heads, and heat, smoke, and fire detectors.

2000-03 Stacks of materials over 15-feet high, the clearance for stored materials will be 36 inches from sprinkler heads.

CHAPTER 21 DORMITORIES, TRANSIENT QUARTERS

SECTION 2100 – GENERAL REQUIREMENTS

2100-01 These facilities pose a high loss of life potential where the careless act of one person places many people in jeopardy. Therefore, the strict compliance and enforcement of fire prevention and fire safety standards are especially important. Personnel will not be quartered in other than designated sleeping facilities unless approved by the Fire Chief.

2100-02 The following are prohibited in dormitories:

- a. Firearms and ammunition.

- b. Explosives or pyrotechnics includes fireworks.

- c. Flammable/combustible liquids to include propane cylinders, lighter fluid, etc... This does not apply to small amounts of lighter fluid or butane for refilling cigarette lighters, or model glue and paints.

2100-03 Cooking appliances such as hot plates, electric kettles, electric frying pan, wok, toaster or toaster oven, waffle maker, electric grill, crock-pots, popcorn popper, rice cooker, and any other electrical appliance for cooking purposes are NOT PERMITTED.

2100-04 The following items with heating elements are authorized for use in the rooms/offices but must be unplugged when not in use:

- a. Coffee makers with automatic shut-off feature.
- b. Irons with automatic shut-off protection.
- c. Water kettle/hot water pot with automatic Shut-off feature.

2100-05 Curtains and draperies must be flame resistant. The activity or individual installing curtains or draperies must provide the Fire Prevention Office with a copy of the manufacturer's certification stating the material is flame resistant.

2100-06 Motorcycle and vehicle parts storage or maintenance of any kind is prohibited.

2100-07 Utility rooms and linen storage rooms throughout dormitories and quarters will be kept neat, clean, and orderly at all times.

2100-08 Fire alarm panels and electrical panels will be unobstructed and accessible at all times.

2100-09 A minimum clearance of 36 inches will be maintained around water heaters, hot water pipes, and furnaces.

2100-10 If rack storage is used, a clearance of at least 18 inches will be maintained between rack storage materials and the ceiling, ceiling fixtures, or fire detection/suppression devices.

2100-11 Fused, U/L approved surge protectors will be the only type of extension cord allowed. All surge protectors must be plugged directly into a wall outlet. The use of two-pronged ungrounded or 3 pronged grounded extension cords are NOT PERMITTED.

2100-12 when a refrigerator is in use it must be plugged directly into a wall outlet.

2100-13 Plug adapters are not authorized. Plug adapters are defined as a device that converts attributes of one device or system to those of an otherwise incompatible device or system, ex. 3-prong to 2-prong adaptors.

2100-14 Candle warmers are authorized to be used in accordance with the manufactures recommendations but must be unplugged when the occupant is not in the room/office. Candle warmers must be plugged directly into an outlet, kept on a noncombustible surface, and clear of any other combustible items.

2100-15 burning candles in the room or using any other open flame device is PROHIBITED.

2100-16 All forms of incense, including incense sticks (or “joss sticks”), cones, and pyramids, are PROHIBITED.

2100-17 Space heaters are NOT PERMITTED in the following:

- a. Common Areas, hallways, and exit stairs

2100-18 All hallways and exit stairs will be kept clear at all times and will not have any items that may impede egress or be of a combustible nature in them. NO furniture, refrigerators and like items will be kept in hallways and stair landings.

Exemption:

- a. One small metal desk and noncombustible metal chair may be kept in the hallway as required by USCC for each Company but must be positioned in a way as to minimize it’s protrusion into the hallway. Only surge protectors can be used for this desk and must be picked up when this post is unmanned.

2100-19 Laundry carts will NOT BE stored in the building and may be used to transport garbage but CAN NOT be used for garbage storage.

2100-20 Grounded, 3 pronged extension cords may be used for temporary use in common areas to power one electric device at a time. The extension cord may not be left in use for extended periods of time and must be put back in storage when not in use. Extended period of time is defined as more than one business/work day.

CHAPTER 22 PUBLIC ASSEMBLY FACILITIES

SECTION 2200 - GENERAL REQUIREMENTS

2200-01 Places of public assembly include, but are not limited to, clubs, services recreational facilities, AAFES facilities, chapels, restaurants, snack bars, and those facilities designated by the Fire Chief. These facilities present a high life loss potential resulting from the possibility of panic and require special fire prevention measures.

- a. Managers/supervisors of public assembly facilities will ensure a responsible individual is assigned during hours of operation to ensure complete and orderly evacuation of the building in an emergency and for prompt notification of the Fire Department.
- b. Operating personnel are designated to check exit doors daily prior to the entry of patrons, to ensure that doors are unlocked and that the panic hardware is operational.
- c. Aisles leading to exits are not to be obstructed by tables, decorations, displays, partitions, or portable seating, etc., at any time.

2200-02 Managers/supervisors of public assembly facilities will establish and maintain a fire prevention certification training folder for all employees/workers. The certification training ensures the employees have been properly trained and understand their fire prevention duties and responsibilities within their work area. The certification training includes documented quarterly exercises for employees (building evacuation is not required) and the immediate indoctrination of newly hired employees.

2200-03 The managers/supervisors shall inspect the means of egress to ensure it is maintained free of obstructions, and correct any deficiencies found, prior to each opening of the building in to the public. The manager/supervisors shall prepare and maintain records of the date and time of each inspection on approved forms, listing any deficiencies found and actions taken to correct them.

2200-04 Assembly occupancies shall provide trained crowd manager at a ratio of 1 per 250 occupants.

2200-05 The Fire Prevention Office will be notified prior to any social event, activity, or concessionaire set-up that involves temporary decorations, use of pyrotechnics, unusual interior arrangements or the gathering of 50 or more people. At the time of notification, the Fire Prevention Office will inspect the facility to ensure all fire safety measures have been taken.

2200-06 The maximum capacity or occupant load must be on file in the main offices of all places of public assembly. Capacity or occupancy load is not to exceed the maximum standard as set forth in NFPA Standard 101, Life Safety Code.

2200-07 The Fire Department will be provided a copy of the manufacturer's certification showing that curtains and draperies purchased for use in these facilities is flame resistant.

2200-08 For those places of public assembly that have commercial type cooking facilities, the following requirements apply:

- a. A minimum of one class K rated fire extinguisher will be located within close proximity of commercial

cooking equipment, but not located in such a position that it cannot be reached in case of a fire.

- b. Each deep fat fryer or cooking unit will be appropriately placed under an exhaust hood system to be protected by an installed wet chemical fire extinguishing system.
- c. Each independently operated cooking well or deep fat fryer unit will be equipped with a primary and secondary thermostat. The temperature setting of the primary thermostat is not to exceed 400 degrees Fahrenheit, and the secondary thermostat must be a non-adjustable, fusible, or manual resetting thermostat with a maximum cut-off temperature not to exceed 475 degrees Fahrenheit.
- d. Deep fat fryer units with either primary or secondary thermostatic control devices out of service or calibration will not be placed into operation until they have been repaired and certified by electrical technicians.
- e. Newly procured or replaced deep fat fryer units will not be placed in service until primary and secondary thermostats have been tested, certified, and tagged by electrical technicians. Test results shall be forwarded to the Fire Prevention Office and also affixed to the unit.
- f. Thermostats will be tested annually by a certified electrician.
- g. Hood and exhaust duct systems servicing kitchen equipment must be thoroughly cleaned to bare metal at

frequent intervals to prevent grease accumulation. This cleaning cycle applies to fans, roofs, louvers, ductwork, and exterior walls.

Specific guidance for cleaning is in accordance with NFPA Standard 96, Ventilation Control and Fire Protection of Commercial Cooking Operations. Documentation must be available to show when the ducts and filters were last cleaned by the using activity or contractor upon request from F&ES.

- h. Hood and exhaust systems must be operating at all times that food preparation is being done. Should the system become inoperative for any reason, all cooking operations protected by that system will cease immediately and will not resume until that unit is returned to service and certified by Fire Prevention personnel.

CHAPTER 23 MILITARY FAMILY HOUSING (MFH)

SECTION 2300 – GENERAL REQUIREMENTS

2300-01 the sponsor is responsible for fire prevention in and around their assigned quarters, and must comply with this instruction to include the following:

- a. Ensure a fire prevention briefing is conducted before moving into residence.
- b. Test smoke detectors in quarters every 30 days and change batteries twice a year if equipped.

- c. Store flammable liquids in proper area outside of living area. Flammables must be stored in approved containers not to exceed 5 gallons. No plastic jugs or glass jars will be used.

2300-02 Storage of ammunition and reloading supplies will be limited in MFH in accordance with USMA regulation 190-3.

2300-03 All outdoor cooking equipment will be kept a minimum of 10 feet away from the building when in use. Outdoor cooking equipment, or any other flame producing equipment or appliance, is not allowed to be used above ground, on balconies or under overhangs. Used charcoal briquettes must be completely submerged in water for 3-5 minutes prior to disposal in dumpsters or trash containers. Propane cylinders will not be stored inside quarters. The maximum number of propane cylinders per residence is 2.

2300-04 Candles and incense may be used in MFH. Candles must be inside glass or metal containers, located on a flat surface and out of reach of small children.

CHAPTER 24 Self-Help Work Projects

SECTION 2400 – GENERAL REQUIREMENTS

2400-01 all self-help work must be approved in advance on a DA Form 4283. Each DA 4283 must be coordinated with the Fire Prevention Office in accordance with USMA regulation 420-70. The purpose of this coordination is to ensure that the construction, renovation, or structural alteration does not compromise fire protection safety. The Fire Prevention Office will review each DA 4283, and make appropriate comments and recommendations

relative to fire protection. Unapproved self-help work, which has created a fire hazard or fire deficiency, will be identified on a DA Form 5283-R, Hazard/Deficiency Inspection Record.

2400-02 Personnel accomplishing self-help work will not shut down, disconnect, alter, modify, or in any way impede the operation of a fire suppression or fire detection system without approval of the Fire Department.

2400-03 The Building Commandant will notify the Fire Prevention Office when approved self-help work, which constructs or structurally alters a facility begins so work may be inspected by the Fire Department during and after completion.

CHAPTER 25 LIQUEFIED PETROLEUM GASES

SECTION 2500 – GENERAL REQUIREMENTS

2500-01 Container location. Containers shall be located with respect to buildings, public ways, and lot lines of adjoining property that can be built upon, in accordance with International Fire Code Chapter 38 Table 3804.3. LP-gas containers shall not be located on the roofs of buildings.

2500-02 Container Storage. Containers shall not be located or stored within any facility.

CHAPTER 26 PROPERTY MAINTENANCE

SECTION 2600 – EXTERIOR PROPERTY AREAS

2600-01 Sanitation. All exterior property and premises shall be maintained in a clean, safe and sanitary condition. The occupant shall keep that part of the exterior property

which such occupant occupies or controls in a clean and sanitary condition.

2600-02 Grading and drainage. All premises shall be graded and maintained to prevent the erosion of soil and to prevent the accumulation of stagnant water thereon, or within any structure located thereon.

Exception:

Approved retention areas and reservoirs.

2600-03 Sidewalks and driveways. All sidewalks, walkways, stairs, driveways, parking spaces and similar areas shall be kept in a proper state of repair, and maintained free from hazardous conditions.

2600-04 Weeds. All premises and immediate exterior property shall be maintained free from weeds or plant growth in excess of 10 inches (254 mm). All noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs provided; however, this term shall not include cultivated flowers and gardens.

2600-05 Rodent harborage. All structures and exterior property shall be kept free from rodent harborage and infestation. Where rodents are found, they shall be promptly exterminated by approved processes which will not be injurious to human health. After extermination, proper precautions shall be taken to eliminate rodent harborage and prevent infestation.

2600-06 Exhaust vents. Pipes, ducts, conductors, fans or blowers shall not discharge gases, steam, vapor, hot air, grease, smoke, odors or other gaseous or particulate wastes directly upon abutting or adjacent public or private property or that of another tenant.

2600-07 Structures. All structures, including detached garages, sheds, fences and walls, etc., shall be maintained structurally sound and in good repair.

CHAPTER 27 DEFINITIONS (BY CHAPTER)

Chapter 5- EMERGENCY EVACUATION DRILLS AND FIRE PREVENTION TRAINING

EMERGENCY EVACUATION DRILL.

An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency evacuation procedures.

Chapter 6- GENERAL PRECAUTIONS AGAINST FIRE

OPENBURNING. The burning of materials wherein products of combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. Open burning does not include road flares, smudge pots and similar devices associated with safety or occupational uses typically considered open flames or recreational fires. For the purpose of this definition, a chamber shall be regarded as enclosed when, during the time combustion occurs, only apertures, ducts, stacks, flues or chimneys necessary to provide combustion air and permit the escape of exhaust gas are open.

RECREATIONAL FIRE. An outdoor fire burning materials other than rubbish where the fuel being burned is not contained in an incinerator, outdoor fireplace, barbeque grill or barbeque pit and has a total fuel area of 3 feet or less in diameter and 2 feet or less in

height for pleasure, religious, ceremonial, cooking, warmth or similar purposes.

PORTABLE OUTDOOR FIREPLACE. A portable, outdoor, solid-fuel-burning fireplace that may be constructed of steel, concrete, clay or other noncombustible material. A portable outdoor fireplace may be open in design, or may be equipped with a small hearth opening and a short chimney or chimney opening in the top.

Chapter 7- FIRE SERVICE FEATURES

FIRE APPARATUS ACCESS ROAD. A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, Public Street, Private Street, parking lot lane and access roadway.

FIRE DEPARTMENT MASTER KEY. A limited issue key of special or controlled design to be carried by fire department officials in command which will open key boxes on specified properties.

FIRE LANE. A road or other passageway developed to allow the passage of fire apparatus. A fire lane is not necessarily intended for vehicular traffic other than fire apparatus.

KEY BOX. A secure, tamperproof device with a lock operable only by a fire department master key, and containing building entry keys and other keys that may be required for access in an emergency.

Chapter 8- BUILDING SERVICES AND SYSTEMS

COMMERCIAL COOKING

APPLIANCES. Appliances used in a commercial food service establishment for heating or cooking food and which produce

grease vapors, steam, fumes, smoke or odors that are required to be removed through a local exhaust ventilation system. Such appliances include:

- a. deep fat fryers; upright broilers; griddles; broilers; steam-jacketed kettles; hot-top ranges; under-fired broilers (char broilers); ovens; barbecues; rotisseries; and similar appliances.
- b. For the purpose of this definition, a food service establishment shall include any building or a portion thereof used for the preparation and serving of food.

HOOD. An air-intake device used to capture by entrapment, impingement, adhesion or similar means, grease and similar contaminants before they enter a duct system.

TYPE I. A kitchen hood for collecting and removing grease vapors and smoke.

Chapter 9- INTERIOR FINISH, DECORATIVE MATERIAL & FURNISHINGS

FLAME SPREAD. The propagation of flame over a surface.

FLAME SPREAD INDEX. A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E 84 or UL 723.

INTERIOR FLOOR-WALL BASE. Interior floor finish trim used to provide a functional or decorative border at the intersection of walls and floors.

SITE-FABRICATED STRETCH SYSTEM. A system, fabricated on site and intended for

acoustical, tackable or aesthetic purposes that is comprised of three elements:

- a. A frame constructed of plastic, wood, metal or other material used to hold fabric in place;
- b. A core material (infill, with the correct properties for the application); and
- c. An outside layer, comprised of a textile, fabric or vinyl that is stretched taut and held in place by tension or mechanical fasteners via the frame.

Chapter 10- FIRE PROTECTION SYSTEMS

ALARM NOTIFICATION APPLIANCE. A fire alarm system component such as a bell, horn, speaker, light or text display that provides audible, tactile or visible outputs, or any combination thereof.

ALARM SIGNAL. A signal indicating an emergency requiring immediate action, such as a signal indicative of fire.

ALARM VERIFICATION FEATURE. A feature of automatic fire detection and alarm systems to reduce unwanted alarms wherein smoke detectors report alarm conditions for a minimum period of time, or confirm alarm conditions within a given time period, after being automatically reset, in order to be accepted as a valid alarm-initiation signal.

ANNUNCIATOR. A unit containing one or more indicator lamps, alphanumeric displays or other equivalent means in which each indication provides status information about a circuit, condition or location.

AUDIBLE ALARM NOTIFICATION APPLIANCE. A notification appliance that alerts by the sense of hearing.

AUTOMATIC. As applied to fire protection devices, a device or system providing an emergency function without the necessity for human intervention and activated as a result of a predetermined temperature rise, rate of temperature rise or combustion products.

AUTOMATIC FIRE-EXTINGUISHING SYSTEM. An approved system of devices and equipment which automatically detects a fire and discharges an approved fire-extinguishing agent onto or in the area of a fire.

AUTOMATIC SMOKE DETECTION SYSTEM. A fire alarm system that has initiation devices that utilize smoke detectors for protection of an area such as a room or space with detectors to provide early warning of fire.

AUTOMATIC SPRINKLER SYSTEM. An automatic sprinkler system, for fire protection purposes, is an integrated system of underground and overhead piping designed in accordance with fire protection engineering standards. The system includes a suitable water supply. The portion of the system above the ground is a network of specially sized or hydraulically designed piping installed in a structure or area, generally overhead, and to which automatic sprinklers are connected in a systematic pattern. The system is usually activated by heat from a fire and discharges water over the fire area.

AVERAGE AMBIENT SOUND LEVEL. The root mean square, A-weighted sound pressure level measured over a 24-hour

period, or the time any person is present, whichever time period is less.

CARBON DIOXIDE EXTINGUISHING SYSTEM. A system supplying carbon dioxide (CO₂) from a pressurized vessel through fixed pipes and nozzles. The system includes a manual- or automatic-actuating mechanism.

CLEAN AGENT. Electrically nonconducting, volatile or gaseous fire extinguishant that does not leave a residue upon evaporation.

CONSTANTLY ATTENDED LOCATION. A designated location at a facility staffed by trained personnel on a continuous basis where alarm or supervisory signals are monitored and facilities are provided for notification of the fire department or other emergency services.

DELUGE SYSTEM. A sprinkler system employing open sprinklers attached to a piping system connected to a water supply through a valve that is opened by the operation of a detection system installed in the same area as the sprinklers. When this valve opens, water flows into the piping system and discharges from all sprinklers attached thereto.

DETECTOR, HEAT. A fire detector that senses heat, either abnormally high temperature or rate of rise, or both.

DRY-CHEMICAL EXTINGUISHING AGENT. A powder composed of small particles, usually of sodium bicarbonate, potassium bicarbonate, urea-potassium-based bicarbonate, potassium chloride or monoammonium phosphate, with added particulate material supplemented by special treatment to provide resistance to packing,

resistance to moisture absorption (caking) and the proper flow capabilities.

ELEVATOR GROUP. A grouping of elevators in a building located adjacent or directly across from one another that respond to a common hall call button(s).

EMERGENCY ALARM SYSTEM. A system to provide indication and warning of emergency situations involving hazardous materials.

EMERGENCY VOICE/ALARM COMMUNICATIONS. Dedicated manual or automatic facilities for originating and distributing voice instructions, as well as alert and evacuation signals pertaining to a fire emergency, to the occupants of a building.

FIRE ALARM BOX, MANUAL. See "Manual fire alarm box."

FIRE ALARM CONTROL UNIT. A system component that receives inputs from automatic and manual fire alarm devices and may be capable of supplying power to detection devices and transponder(s) or off-premises transmitter(s). The control unit may be capable of providing a transfer of power to the notification appliances and transfer of condition to relays or devices.

FIRE ALARM SIGNAL. A signal initiated by a fire alarm-initiating device such as a manual fire alarm box, automatic fire detector, water flow switch or other device whose activation is indicative of the presence of a fire or fire signature.

FIRE ALARM SYSTEM. A system or portion of a combination system consisting of components and circuits arranged to monitor and annunciate the status of fire alarm or supervisory signal-initiating

devices and to initiate the appropriate response to those signals.

FIRE AREA. The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or horizontal assemblies of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.

FIRE DETECTOR, AUTOMATIC. A device designed to detect the presence of a fire signature and to initiate action.

FIRE PROTECTION SYSTEM. Approved devices, equipment and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof.

FIRE SAFETY FUNCTIONS. Building and fire control functions that are intended to increase the level of life safety for occupants or to control the spread of the harmful effects of fire.

FIXED BASE OPERATOR (FBO). A commercial business granted the right by the airport sponsor to operate on an airport and provide aeronautical services such as fueling, hangaring, tie-down and parking, aircraft rental, aircraft maintenance and flight instruction.

FOAM-EXTINGUISHING SYSTEM. A special system discharging a foam made from concentrates, either mechanically or chemically, over the area to be protected.

HALOGENATED EXTINGUISHING SYSTEM. A fire-extinguishing system using one or more atoms of an element from

the halogen chemical series: fluorine, chlorine, bromine and iodine.

IMPAIRMENT COORDINATOR. The person responsible for the maintenance of a particular fire protection system.

INITIATING DEVICE. A system component that originates transmission of a change-of-state condition, such as in a smoke detector, manual fire alarm box, or supervisory switch.

MANUAL FIRE ALARM BOX. A manually operated device used to initiate an alarm signal.

MULTIPLE-STATION ALARM DEVICE. Two or more single-station alarm devices that can be interconnected such that actuation of one causes all integral or separate audible alarms to operate. It also can consist of one single-station alarm device having connections to other detectors or to a manual fire alarm box.

MULTIPLE-STATION SMOKE ALARM. Two or more single-station alarm devices that are capable of interconnection such that actuation of one causes the appropriate alarm signal to operate in all interconnected alarms.

NOTIFICATION ZONE. See "Zone, notification."

NUISANCE ALARM. An alarm caused by mechanical failure, malfunction, improper installation or lack of proper maintenance, or an alarm activated by a cause that cannot be determined.

RECORD DRAWINGS. Drawings ("as built") that document the location of all devices, appliances, wiring, sequences, wiring methods and connections of the

components of a fire alarm system as installed.

SINGLE-STATION SMOKE ALARM. An assembly incorporating the detector, the control equipment and the alarm-sounding device in one unit, operated from a power supply either in the unit or obtained at the point of installation.

SLEEPING UNIT. A room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.

SMOKE ALARM. A single- or multiple-station alarm responsive to smoke.

SMOKE DETECTOR. A listed device that senses visible or invisible particles of combustion.

STANDPIPE SYSTEM, CLASSES OF. Standpipe classes are as follows:

- a. Class I system. A system providing 2 1/2-inch (64 mm) hose connections to supply water for use by fire departments and those trained in handling heavy fire streams.
- b. Class II system. A system providing 1 1/2-inch (38 mm) hose stations to supply water for use primarily by the building occupants or by the fire department during initial response.
- c. Class III system. A system providing 1 1/2-inch (38 mm) hose stations to supply water for use by building occupants and 2 1/2-inch (64 mm) hose connections to supply a larger volume of water for use by fire departments and those trained in handling heavy fire streams.

STANDPIPE, TYPES OF. Standpipe types are as follows:

- a. Automatic dry. A dry standpipe system, normally filled with pressurized air that is arranged through the use of a device, such as a dry pipe valve, to admit water into the system piping automatically upon the opening of a hose valve. The water supply for an automatic dry standpipe system shall be capable of supplying the system demand.
- b. Automatic wet. A wet standpipe system that has a water supply that is capable of supplying the system demand automatically.
- c. Manual dry. A dry standpipe system that does not have a permanent water supply attached to the system. Manual dry standpipe systems require water from a fire department pumper to be pumped into the system through the fire department connection in order to supply the system demand.
- d. Manual wet. A wet standpipe system connected to a water supply for the purpose of maintaining water within the system but which does not have a water supply capable of delivering the system demand attached to the system. Manual wet standpipe systems require water from a fire department pumper (or the like) to be pumped into the system in order to supply the system demand.
- e. Semiautomatic dry. A dry standpipe system that is arranged through the use of a device, such as a deluge valve, to admit water into the system piping upon activation of a remote control device located at a hose

connection. A remote control activation device shall be provided at each hose connection. The water supply for a semiautomatic dry standpipe system shall be capable of supplying the system demand.

SUPERVISING STATION. A facility that receives signals and at which personnel are in attendance at all times to respond to these signals.

SUPERVISORY SERVICE. The service required to monitor performance of guard tours and the operative condition of fixed suppression systems or other systems for the protection of life and property.

SUPERVISORY SIGNAL. A signal indicating the need of action in connection with the supervision of guard tours, the fire suppression systems or equipment, or maintenance features of related systems.

TIRES, BULK STORAGE OF. Storage of tires where the area available for storage exceeds 20,000 cubic feet (566 m3).

TRANSIENT AIRCRAFT. Aircraft based at another location and is at the transient location for not more than 90 days. [B]

TROUBLE SIGNAL. A signal initiated by the fire alarm system or device indicative of a fault in a monitored circuit or component.

VISIBLE ALARM NOTIFICATION APPLIANCE. A notification appliance that alerts by the sense of sight.

WET-CHEMICAL EXTINGUISHING AGENT. A solution of water and potassium-carbonate-based chemical, potassium-acetate-based chemical or a combination thereof, forming an extinguishing agent.

WIRELESS PROTECTION SYSTEM. A system or a part of a system that can transmit and receive signals without the aid of wire.

ZONE. A defined area within the protected premises. A zone can define an area from which a signal can be received, an area to which a signal can be sent or an area in which a form of control can be executed.

ZONE, NOTIFICATION. An area within a building or facility covered by notification appliances which are activated simultaneously.

Chapter 11- MEANS OF EGRESS

ACCESSIBLE MEANS OF EGRESS. A continuous and unobstructed way of egress travel from any point in a building or facility that provides an accessible route to an area of refuge, a horizontal exit or a public way.

AISLE ACCESSWAY. That portion of an exit access that leads to an aisle.

ALTERNATING TREAD DEVICE. A device that has a series of steps between 50 and 70 degrees from horizontal, usually attached to a center support rail in an alternating manner so that the user does not have both feet on the same level at the same time.

AREA OF REFUGE. An area where persons unable to use stairways can remain temporarily to await instructions or assistance during emergency evacuation.

BLEACHERS. Tiered seating facilities.

COMMON PATH OF EGRESS TRAVEL. That portion of exit access which the occupants are required to traverse before two separate and distinct paths of egress travel to two exits are available. Paths that

merge are common paths of travel. Common paths of egress travel shall be included within the permitted travel distance.

CORRIDOR. An enclosed exit access component that defines and provides a path of egress travel to an exit.

DOOR, BALANCED. A door equipped with double-pivoted hardware so designed as to cause a semi counter balanced swing action when opening.

EGRESS COURT. A court or yard which provides access to a public way for one or more exits.

EMERGENCY ESCAPE AND RESCUE OPENING. An operable window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

EXIT. That portion of a means of egress system which is separated from other interior spaces of a building or structure by fire-resistance-rated construction and opening protectives as required to provide a protected path of egress travel between the exit access and the exit discharge. Exits include exterior exit doors at ground level, exit enclosures, exit passageways, exterior exit stairs, exterior exit ramps and horizontal exits.

EXIT ACCESS. That portion of a means of egress system that leads from any occupied portion of a building or structure to an exit.

EXIT DISCHARGE. That portion of a means of egress system between the termination of an exit and a public way.

EXIT DISCHARGE, LEVEL OF. The horizontal plane located at the point at

which an exit terminates and an exit discharge begins.

EXIT ENCLOSURE. An exit component that is separated from other interior spaces of a building or structure by fire-resistance-rated construction and opening protectives, and provides for a protected path of egress travel in a vertical or horizontal direction to the exit discharge or the public way.

EXIT, HORIZONTAL. A path of egress travel from one building to an area in another building on approximately the same level, or a path of egress travel through or around a wall or partition to an area on approximately the same level in the same building, which affords safety from fire and smoke from the area of incidence and areas communicating therewith.

EXIT PASSAGEWAY. An exit component that is separated from all other interior spaces of a building or structure by fire-resistance-rated construction and opening protectives, and provides for a protected path of egress travel in a horizontal direction to the exit discharge or the public way.

FIRE EXIT HARDWARE. Panic hardware that is listed for use on fire door assemblies.

FLOOR AREA, GROSS. The floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

FLOOR AREA, NET. The actual occupied area not including unoccupied accessory areas such as corridors, stairways, toilet rooms, mechanical rooms and closets.

FOLDING AND TELESCOPIC SEATING. Tiered seating facilities having an overall shape and size that are capable of being reduced for purposes of moving or storing.

GRANDSTAND. Tiered seating facilities.

GUARD. A building component or a system of building components located at or near the open sides of elevated walking surfaces that minimizes the possibility of a fall from the walking surface to a lower level.

HANDRAIL. A horizontal or sloping rail intended for grasping by the hand for guidance or support.

MEANS OF EGRESS. A continuous and unobstructed path of vertical and horizontal egress travel from any occupied portion of a building or structure to a public way. A means of egress consists of three separate and distinct parts: the exit access, the exit and the exit discharge.

NOSING. The leading edge of treads of stairs and of landings at the top of stairway flights.

OCCUPANT LOAD. The number of persons for which the means of egress of a building or portion thereof is designed.

PANIC HARDWARE. A door-latching assembly incorporating a device that releases the latch upon the application of a force in the direction of egress travel.

PUBLICWAY. A street, alley or other parcel of land open to the outside air leading to a street, that has been deeded, dedicated or otherwise permanently appropriated to

the public for public use and which has a clear width and height of not less than 10 feet.

RAMP. A walking surface that has a running slope steeper than one unit vertical in 20 units horizontal (5-percent slope).

SCISSOR STAIR. Two interlocking stairways providing two separate paths of egress located within one stairwell enclosure.

SMOKE-PROTECTED ASSEMBLY SEATING. Seating served by means of egress that is not subject to smoke accumulation within or under a structure.

STAIR. A change in elevation, consisting of one or more risers.

STAIRWAY. One or more flights of stairs, either exterior or interior, with the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one level to another.

STAIRWAY, EXTERIOR. A stairway that is open on at least one side, except for required structural columns, beams, handrails and guards. The adjoining open areas shall be either yards, courts or public ways. The other sides of the exterior stairway need not be open.

STAIRWAY, INTERIOR. A stairway not meeting the definition of an exterior stairway.

STAIRWAY, SPIRAL. A stairway having a closed circular form in its plan view with uniform section-shaped treads attached to and radiating from a minimum-diameter supporting column.

WINDER. A tread with nonparallel edges.

**Chapter 12- ELECTRICAL
INSTALLATION**

**Chapter 13- FIRE SAFETY DURING
CONSTRUCTION**

**Chapter 14- MOTOR FUEL-DISPENSING
FACILITIES AND REPAIR GARAGES**

AIRCRAFT MOTOR-VEHICLE FUEL-DISPENSING FACILITY. That portion of property where flammable or combustible liquids or gases used as motor fuels are stored and dispensed from fixed automotive-type equipment into the fuel tanks of aircraft.

ALCOHOL BLENDED FUELS. Alcohol blended fuels, including those containing 85-percent ethanol and 15-percent unleaded gasoline (E85), are flammable liquids consisting of ethanol or other alcohols blended greater than 15 percent by volume.

AUTOMOTIVE MOTOR FUEL-DISPENSING FACILITY. That portion of property where flammable or combustible liquids or gases used as motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles.

DISPENSING DEVICE, OVERHEAD TYPE. A dispensing device that consists of one or more individual units intended for installation in conjunction with each other, mounted above a dispensing area typically within the motor fuel-dispensing facility canopy structure, and characterized by the use of an overhead hose reel.

FLEET VEHICLE MOTOR FUEL-DISPENSING FACILITY. That portion of a commercial, industrial, governmental or manufacturing property where liquids used as fuels are stored and dispensed into the fuel tanks of motor vehicles that are used in

connection with such businesses, by persons within the employ of such businesses.

LIQUEFIED NATURAL GAS (LNG). A fluid in the liquid state composed predominantly of methane and which may contain minor quantities of ethane, propane, nitrogen or other components normally found in natural gas.

MARINE MOTOR FUEL-DISPENSING FACILITY. That portion of property where flammable or combustible liquids or gases used as fuel for watercraft are stored and dispensed from fixed equipment on shore, piers, wharves, floats or barges into the fuel tanks of watercraft and shall include all other facilities used in connection therewith.

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles.

SELF-SERVICE MOTOR FUEL-DISPENSING FACILITY. That portion of motor fuel-dispensing facility where liquid motor fuels are dispensed from fixed approved dispensing equipment into the fuel tanks of motor vehicles by persons other than a motor fuel-dispensing facility attendant.

**Chapter 15- TENTS, CANOPIES AND
OTHER MEMBRANE STRUCTURES**

AIR-SUPPORTED STRUCTURE. A structure wherein the shape of the structure is attained by air pressure, and occupants of the structure are within the elevated pressure area.

CANOPY. A structure, enclosure or shelter constructed of fabric or pliable materials supported by any manner, except by air or the contents it protects, and is open without

sidewalls or drops on 75 percent or more of the perimeter.

MEMBRANE STRUCTURE. An air-inflated, air-supported, cable or frame-covered structure.

TENT. A structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.

Chapter 16- WELDING, CUTTING AND OTHER HOT WORK

HOTWORK. Operations including cutting, welding, Thermit welding, brazing, soldering, grinding, thermal spraying, thawing pipe, installation of torch-applied roof systems or any other similar activity.

HOT WORK AREA. The area exposed to sparks, hot slag, radiant heat, or convective heat as a result of the hot work.

HOTWORK EQUIPMENT. Electric or gas welding or cutting equipment use for hot work.

HOT WORK PERMITS. Permits issued by the WPFD under the criteria established in applicable Chapter

RESPONSIBLE PERSON. A person trained in the safety and fire safety considerations concerned with hot work. Responsible for reviewing the sites prior to issuing permits as part of the hot work permit program and following up as the job progresses.

Chapter 17- AMMUNITION, EXPLOSIVES AND FIREWORKS

AMMONIUM NITRATE. A chemical compound represented by the formula NH_4NO_3 .

BARRICADE. A structure that consists of a combination of walls, floor and roof, which is designed to withstand the rapid release of energy in an explosion and which is fully confined, partially vented or fully vented; or other effective method of shielding from explosive materials by a natural or artificial barrier.

- a. Artificial barricade. An artificial mound or revetment a minimum thickness of 3 feet (914 mm).
- b. Natural barricade. Natural features of the ground, such as hills, or timber of sufficient density that the surrounding exposures that require protection cannot be seen from the magazine or building containing explosives when the trees are bare of leaves.

BARRICADED. The effective screening of a building containing explosive materials from the magazine or other building, railway or highway by a natural or an artificial barrier. A straight line from the top of any sidewall of the building containing explosive materials to the eave line of any magazine or other building or to a point 12 feet (3658 mm) above the center of a railway or highway shall pass through such barrier.

BLAST AREA. The area including the blast site and the immediate adjacent area within the influence of flying rock, missiles and concussion.

BLAST SITE. The area in which explosive materials are being or have been loaded and which includes all holes loaded or to be loaded for the same blast and a distance of 50 feet (15 240 mm) in all directions.

BLASTER. A person qualified in accordance with Section 3301.4 to be in charge of and responsible for the loading and firing of a blast.

BLASTING AGENT. A material or mixture consisting of fuel and oxidizer, intended for blasting provided that the finished product, as mixed for use or shipment, cannot be detonated by means of a No. 8 test detonator when unconfined. Blasting agents are labeled and placarded as Class 1.5 material by US DOT.

BULLET RESISTANT. Constructed so as to resist penetration of a bullet of 150-grain M2 ball ammunition having a nominal muzzle velocity of 2,700 feet per second (fps) (824 mps) when fired from a 30-caliber rifle at a distance of 100 feet (30 480 mm), measured perpendicular to the target.

DETONATING CORD. A flexible cord containing a center core of high explosive used to initiate other explosives.

DETONATION. An exothermic reaction characterized by the presence of a shock wave in the material which establishes and maintains the reaction. The reaction zone progresses through the material at a rate greater than the velocity of sound. The principal heating mechanism is one of shock compression. Detonations have an explosive effect.

DETONATOR. A device containing any initiating or primary explosive that is used for initiating detonation. A detonator shall not contain more than 154.32 grains (10 grams) of total explosives by weight, excluding ignition or delay charges. The term includes, but is not limited to, electric blasting caps of instantaneous and delay types, blasting caps for use with safety

fuses, detonating cord delay connectors, and non-instantaneous and delay blasting caps which use detonating cord, shock tube or any other replacement for electric leg wires. All types of detonators in strengths through No. 8 cap should be rated at 1 1/2 pounds (0.68 kg) of explosives per 1,000 caps. For strengths higher than No. 8 cap, consult the manufacturer.

DISCHARGE SITE. The immediate area surrounding the fireworks mortars used for an outdoor fireworks display.

DISPLAY SITE. The immediate area where a fireworks display is conducted. The display area includes the discharge site, the fallout area and the required separation distance from the mortars to spectator viewing areas. The display area does not include spectator viewing areas or vehicle parking areas.

EXPLOSIVE. A chemical compound, mixture or device, the primary or common purpose of which is to function by explosion. The term includes, but is not limited to, dynamite, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs, detonating cord, igniter cord, igniters and display fireworks, 1.3G (Class B, Special).

The term "Explosive" includes any material determined to be within the scope of USC Title 18: Chapter 40 and also includes any material classified as an explosive other than consumer fireworks, 1.4G (Class C, Common) by the hazardous materials regulations of DOT 49 CFR Parts 100-185.

High explosive. Explosive material, such as dynamite, which can be caused to detonate

by means of a No. 8 test blasting cap when unconfined.

Low explosive. Explosive material that will burn or deflagrate when ignited. It is characterized by a rate of reaction that is less than the speed of sound. Examples of low explosives include, but are not limited to, black powder, safety fuse, igniters, igniter cord, fuse lighters, fireworks, 1.3G (Class B special) and propellants, 1.3C.

Mass-detonating explosives. Division 1.1, 1.2 and 1.5 explosives alone or in combination, or loaded into various types of ammunition or containers, most of which can be expected to explode virtually instantaneously when a small portion is subjected to fire, severe concussion, impact, the impulse of an initiating agent or the effect of a considerable discharge of energy from without. Materials that react in this manner represent a mass explosion hazard. Such an explosive will normally cause severe structural damage to adjacent objects. Explosive propagation could occur immediately to other items of ammunition and explosives stored sufficiently close to and not adequately protected from the initially exploding pile with a time interval short enough so that two or more quantities must be considered as one for quantity-distance purposes.

UN/DOT Class 1 explosives. The former classification system used by DOT included the terms "high" and "low" explosives as defined herein. The following terms further define explosives under the current system applied by DOT for all explosive materials defined as hazard Class 1 materials.

Compatibility group letters are used in concert with the Division to specify further limitations on each division noted (i.e., the

letter G identifies the material as a pyrotechnic substance or article containing a pyrotechnic substance and similar materials).

- a. Division 1.1. Explosives that have a mass explosion hazard. A mass explosion is one which affects almost the entire load instantaneously.
- b. Division 1.2. Explosives that have a projection hazard but not a mass explosion hazard.
- c. Division 1.3. Explosives that have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.
- d. Division 1.4. Explosives that pose a minor explosion hazard. The explosive effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package.
- e. Division 1.5. Very insensitive explosives. This division is comprised of substances that have a mass explosion hazard but which are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport.
- f. Division 1.6. Extremely insensitive articles which do not have a mass explosion hazard. This division is comprised of articles that contain only extremely insensitive detonating substances and which demonstrate a negligible probability

of accidental initiation or propagation.

EXPLOSIVE MATERIAL. The term "explosive" material means explosives, blasting agents and detonators.

FALLOUT AREA. The area over which aerial shells are fired. The shells burst over the area, and unsafe debris and malfunctioning aerial shells fall into this area. The fallout area is the location where a typical aerial shell dud falls to the ground depending on the wind and the angle of mortar placement.

FIREWORKS. Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration or detonation that meets the definition of 1.4G fireworks or 1.3G fireworks as set forth herein.

Fireworks, 1.4G. (Formerly known as Class C, Common Fireworks.) Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion. Such 1.4G fireworks which comply with the construction, chemical composition and labeling regulations of the DOT for Fireworks, UN 0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR: Parts 1500 and 1507, are not explosive materials for the purpose of this code.

Fireworks, 1.3G. (Formerly Class B, Special Fireworks.) Large fireworks devices, which are explosive materials, intended for use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130

milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition and other display pieces which exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks are also described as Fireworks, UN0335 by the DOT.

FIREWORKS DISPLAY. A presentation of fireworks for a public or private gathering.

HIGHWAY. A public street, public alley or public road.

INHABITED BUILDING. A building regularly occupied in whole or in part as a habitation for people, or any place of religious worship, schoolhouse, railroad station, store or other structure where people are accustomed to assemble, except any building or structure occupied in connection with the manufacture, transportation, storage or use of explosive materials.

MAGAZINE. A building, structure or container, other than an operating building, approved for storage of explosive materials.

Indoor. A portable structure, such as a box, bin or other container, constructed as required for Type 2, 4 or 5 magazines in accordance with NFPA 495, NFPA 1124 or DOT 27 CFR Part 55 so as to be fire resistant and theft resistant.

- a. Type 1. A permanent structure, such as a building or igloo, that is bullet resistant, fire resistant, theft resistant, weather resistant and ventilated in accordance with the requirements of NFPA 495, NFPA 1124 or DOT 27 CFR Part 55.
- b. Type 2. A portable or mobile structure, such as a box, skid-magazine, trailer or semitrailer, constructed in accordance with the

requirements of NFPA 495, NFPA 1124 or DOT 27 CFR, Part 55 that is fire resistant, theft resistant, weather resistant and ventilated. If used outdoors, a Type 2 magazine is also bullet resistant.

- c. Type 3. A fire resistant, theft resistant and weather resistant "day box" or portable structure constructed in accordance with NFPA 495, NFPA 1124 or DOT 27 CFR Part 55 used for the temporary storage of explosive materials.
- d. Type 4. A permanent, portable or mobile structure such as a building, igloo, box, semitrailer or other mobile container that is fire resistant, theft resistant and weather resistant and constructed in accordance with NFPA 495, NFPA 1124 or DOT 27 CFR, Part 55.
- e. Type 5. A permanent, portable or mobile structure such as a building, igloo, box, bin, tank, semitrailer, bulk trailer, tank trailer, bulk truck, tank truck or other mobile container that is theft resistant, which is constructed in accordance with NFPA 495, NFPA 1124 or DOT 27 CFR, Part 55.

MORTAR. A tube from which fireworks shells are fired into the air.

NET EXPLOSIVE WEIGHT (net weight). The weight of explosive material expressed in pounds. The net explosive weight is the aggregate amount of explosive material contained within buildings, magazines, structures or portions thereof, used to establish quantity-distance relationships.

OPERATING BUILDING. A building occupied in conjunction with the

manufacture, transportation or use of explosive materials. Operating buildings are separated from one another with the use of intraplant or intraline distances.

OPERATING LINE. A group of buildings, facilities or workstations so arranged as to permit performance of the steps in the manufacture of an explosive or in the loading, assembly, modification and maintenance of ammunition or devices containing explosive materials.

PLOSOPHORIC MATERIAL. Two or more unmixed, commercially manufactured, prepackaged chemical substances including oxidizers, flammable liquids or solids, or similar substances that are not independently classified as explosives but which, when mixed or combined, form an explosive that is intended for blasting.

PROXIMATE AUDIENCE. An audience closer to pyrotechnic devices than allowed by NFPA 1123.

PUBLIC TRAFFIC ROUTE (PTR). Any public street, road, highway, navigable stream or passenger railroad that is used for through traffic by the general public.

PYROTECHNIC ARTICLE. A pyrotechnic device for use in the entertainment industry, which is not classified as fireworks.

PYROTECHNIC COMPOSITION. A chemical mixture that produces visible light displays or sounds through a self-propagating, heat-releasing chemical reaction which is initiated by ignition.

PYROTECHNIC SPECIAL EFFECT. A visible or audible effect for entertainment created through the use of pyrotechnic materials and devices.

PYROTECHNIC SPECIAL-EFFECT MATERIAL. A chemical mixture used in the entertainment industry to produce visible or audible effects by combustion, deflagration or detonation. Such a chemical mixture predominantly consists of solids capable of producing a controlled, self-sustaining and self-contained exothermic chemical reaction that results in heat, gas sound, light or a combination of these effects. The chemical reaction functions without external oxygen.

PYROTECHNICS. Controlled exothermic chemical reactions timed to create the effects of heat, hot gas, sound, and dispersion of aerosols, emission of visible light or a combination of such effects to achieve the maximum effect from the least volume of pyrotechnic composition.

QUANTITY-DISTANCE (Q-D). The quantity of explosive material and separation distance relationships providing protection. These relationships are based on levels of risk considered acceptable for the stipulated exposures and are tabulated in the appropriate Q-D tables. The separation distances specified afford less than absolute safety:

- a. **Inhabited building distance (IBD).** The minimum separation distance between an operating building or magazine containing explosive materials and an inhabited building or site boundary.
- b. **Intermagazine distance (IMD).** The minimum separation distance between magazines.
- c. **Intraline distance (ILD) or Intraplant distance (IPD).** The distance to be maintained between any two operating buildings on an explosives

manufacturing site when at least one contains or is designed to contain explosives, or the distance between a magazine and an operating building.

- d. **Minimum separation distance (Do).** The minimum separation distance between adjacent buildings occupied in conjunction with the manufacture, transportation, storage or use of explosive materials where one of the buildings contains explosive materials and the other building does not.

RAILWAY. A steam, electric or other railroad or railway that carries passengers for hire.

READY BOX. A weather-resistant container with a self-closing or automatic-closing cover that protects fireworks shells from burning debris. Tarpaulins shall not be considered as ready boxes.

SMALL ARMS AMMUNITION. A shotgun, rifle or pistol cartridge and any cartridge for propellant-actuated devices. This definition does not include military ammunition containing bursting charges or incendiary, trace, spotting or pyrotechnic projectiles.

SMALL ARMS PRIMERS. Small percussion-sensitive explosive charges, encased in a cap, used to ignite propellant powder.

SMOKELESS PROPELLANTS. Solid propellants, commonly referred to as smokeless powders, used in small arms ammunition, cannons, rockets, propellant-actuated devices and similar articles.

SPECIAL INDUSTRIAL EXPLOSIVE DEVICE. An explosive power pack containing an explosive charge in the form of a cartridge or construction device. The term includes but is not limited to explosive rivets, explosive bolts, explosive charges for driving pins or studs, cartridges for explosive-actuated power tools and charges of explosives used in automotive air bag inflators, jet tapping of open hearth furnaces and jet perforation of oil well casings.

THEFT RESISTANT. Construction designed to deter illegal entry into facilities for the storage of explosive materials.

Chapter 18- AVIATION FACILITIES

AIRCRAFT OPERATION AREA (AOA). Any area used or intended for use for the parking, taxiing, takeoff, landing or other ground-based aircraft activity.

AIRPORT. An area of land or structural surface that is used, or intended for use, for the landing and taking off of aircraft with an overall length greater than 39 feet and an overall exterior fuselage width greater than 6.6 feet, and any appurtenant areas that are used or intended for use for airport buildings and other airport facilities.

HELIPORT. An area of land or water or a structural surface that is used, or intended for use, for the landing and taking off of helicopters, and any appurtenant areas which are used, or intended for use, for heliport buildings and other heliport facilities.

HELISTOP. The same as “Heliport,” except that no fueling, defueling, maintenance, repairs or storage of helicopters is permitted.

Chapter 19- FLAMMABLE AND COMBUSTIBLE LIQUIDS

COMBUSTIBLE LIQUID. A liquid having a closed cup flash point at or above 100°F (38°C). Combustible liquids shall be subdivided as follows:

- a. Class II. Liquids having a closed cup flash point at or above 100°F (38°C) and below 140°F (60°C).
- b. Class IIIA. Liquids having a closed cup flash point at or above 140°F (60°C) and below 200°F (93°C).
- c. Class IIIB. Liquids having closed cup flash points at or above 200°F (93°C).

The category of combustible liquids does not include compressed gases or cryogenic fluids.

FLAMMABLE LIQUID. A liquid having a closed cup flash point below 100°F (38°C). Flammable liquids are further categorized into a group known as Class I liquids. The Class I category is subdivided as follows:

- a. Class IA. Liquids having a flash point below 73°F (23°C) and having a boiling point below 100°F (38°C).
- b. Class IB. Liquids having a flash point below 73°F (23°C) and having a boiling point at or above 100°F (38°C).
- c. Class IC. Liquids having a flash point at or above 73°F (23°C) and below 100°F (38°C). The category of flammable liquids does not include compressed gases or cryogenic fluids.

REMOTE EMERGENCY SHUTOFF DEVICE. The combination of an operator-carried signaling device and a mechanism on the tank vehicle. Activation of the remote emergency shutoff device sends a signal to

the tanker-mounted mechanism and causes fuel flow to cease.

SOLVENT DISTILLATION UNIT. An appliance that receives contaminated flammable or combustible liquids and which distills the contents to remove contaminants and recover the solvents.