CHAPTER 24. FIRE PREVENTION PROGRAM

2400. GENERAL. This chapter establishes minimum requirements to prevent fires, and to protect FAA employees from the hazards of fires, and establishes the Federal Aviation Administration's Fire Prevention Program (FPP). The chapter includes requirements for compliance with the Occupational Safety and Health Administration's (OSHA) *Fire Protection* Standard, 29 CFR 1910, Subpart L, and *Means of Egress* Standard, 29 CFR 1910, Subpart E. This chapter does not cover fire protection and means of egress in air traffic control towers since those requirements are addressed by 29 CFR 1960.20, Alternate Standard for Fire Safety in Airport Traffic Control Towers (ATCT).

2401. GOALS AND OBJECTIVES.

a. The fire prevention and protection policy of the FAA is first to prevent fires, and, second, should fire break out, to ensure that fires create no threat to the public or hazards to employees. Property damage from fire must be held to a minimum, as must the impact of fire and related perils on the FAA mission and programs. A primary objective of the FPP is also to allow mission critical air traffic control operations to continue during a fire emergency for a sufficient time to safely transition air traffic control prior to a facility becoming inoperable or untenable for human occupancy. In order to achieve this objective, specific operations will require additional protection to that specified by applicable laws, regulations or standards. Such operations will rely on early detection of a fire incident, effective protection for critical operations, as well as planning and training of FAA personnel to accomplish this objective. As a minimum, ARTCC's, TRACON's, and ATCT's shall be designed and operated to achieve this objective.

b. This chapter requires adherence to and compliance with all applicable laws, orders, regulations, codes, standards, guidelines, policies, and good practices pertaining to fire prevention and protection. In many cases, state or local fire regulations will require the major attention.

2402. SCOPE. This chapter applies to all FAA personnel. FAA contractors and subcontractors must comply with the minimum requirements of this program.

2403. DEFINITIONS.

a. Automatic fire detection device. A device designed to detect automatically the presence of fire by heat, flame, light, smoke or other products of combustion.

b. Emergency action plan. A plan for a workplace, or parts thereof, describing what procedures the employer and employees must take to ensure employee safety from fire or other emergencies.

c. Emergency exit route. The route that employees are directed to follow in the event they are required to evacuate the workplace or seek a designated refuge area (see National Fire Protection Association (NFPA) 101, the Life Safety Code, for requirements for a refuge area).

d. Fire extinguishing system. A permanently installed system that either extinguishes or controls a fire at the location of the system.

e. Hazardous materials. Those materials presenting dangers beyond the fire problems relating to flash point and boiling point. These dangers can arise from, but are not limited to, toxicity, reactivity, instability, or corrosivity.

f. Means of egress. A continuous and unobstructed way of exit travel from any point in a building or structure to a public way and consists of three separate and distinct parts: the way of exit access, the exit, and the way of exit discharge. A means of egress comprises the vertical and horizontal ways of

travel and shall include all intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, escalators, horizontal exits, courts, and yards.

g. National Fire Codes. National Fire Codes are published by the National Fire Protection Association (NFPA), and provide guidance on fire safety issues (e.g., NFPA 101). OSHA has either adopted the wording of these codes in its fire protection standards, or included them by reference. Most local jurisdictions also have adopted these National Fire Codes, although they may supplement them where local circumstances so warrant.

h. Sprinkler system. A system of piping designed in accordance with fire protection engineering standards and installed to control or extinguish fires. The system includes an adequate and reliable water supply and a network of specially sized piping and sprinklers which are interconnected. The system also includes a control valve and a device for actuating an alarm when the system is in operation.

2404. BASIC PROGRAM ELEMENTS. All FAA organizations shall develop a FPP which includes the appointment in writing of a Fire Prevention Program Manager (FPPM) to coordinate overall implementation and oversight of the FPP. The FPP shall be coordinated with the Air Traffic emergency contingency plan, and it shall be consistent with the provisions of the Air Traffic emergency contingency plan. The use of existing facility plans (e.g., the Air Traffic emergency contingency plan) is acceptable provided that all elements called for in this paragraph are included. The FPP shall contain the following elements as a minimum:

a. Fire Protection Plan. There shall be a written fire protection plan for all FAA facilities. Individual and specific plans shall be developed for normally staffed facilities. Facilities that are not normally staffed can be included in a more generic fire protection plan developed by SMO or facility type. Each facility shall develop a list of the major fuel source fire hazards and applicable storage and handling procedures. The plan shall also identify potential ignition sources (such as welding and smoking) and the appropriate fire protection procedures and equipment that will control a fire involving these sources. Where the FAA has leased space or facilities, or facilities with joint or multi-occupancies, every effort shall be made to determine all fuel source fire hazards and ignition sources, including those outside of FAA ownership and control. In addition, where the FAA has leased space, responsibility for fire prevention shall be negotiated with the building owner as appropriate and expressed in writing. The names or regular job titles of those FAA personnel responsible for maintenance of equipment and systems used to prevent or control ignitions or fires must be listed, as well as the names of those responsible for fuel source hazards.

b. Emergency Procedures. Responsible organizations within each facility shall establish a written emergency action plan that addresses the types of personnel evacuation to be used in emergency circumstances, and the alarm system that is to be used to notify occupants of the evacuation. The written plan shall be kept at the workplace and made available for employee review.

(1) Emergency Action Plan (EAP). An EAP addresses those specific actions FAA employees and contract personnel must take to ensure safety from fire and other emergencies. The following elements, at a minimum, shall be included in the EAP:

(a) Emergency escape procedures and emergency exit route assignments.

(b) Procedures to be followed by previously identified FAA employees who are to remain at their duties to operate critical FAA missions and programs before they evacuate.

(c) Procedures to locate and account for all FAA employees and subcontractor employees after emergency evacuation has been completed.

(d) Rescue and medical duties for those FAA employees or other employees (by contract or other agreement) who may be requested as volunteers or required to perform them.

(e) The preferred means of reporting fires and other emergencies.

(f) Procedures to be followed to assist disabled employees during evacuation.

(g) Names or regular job titles of persons or organizational units who can be contacted for further information or explanation of duties under the EAP.

(2) Evacuation Procedures and Means of Egress. The EAP must address the methods and routes of evacuation to be used by FAA employees in emergency circumstances and be coordinated with existing air traffic contingency plans and orders. All such exits must never be used for storage of any materials, and have non-combustible surface finishes with appropriate surface burning and flame-spread classification. The plan must reflect the following requirements:

(a) Every FAA building or structure designed for human occupancy must be provided with sufficient exits to permit the prompt and safe escape of occupants, including persons with disabilities (PWD), in case of fire or other emergency.

(b) In every FAA building or structure, exits must be so arranged and maintained as to provide free and unobstructed egress from all parts of the building or structure at all times when it is occupied. Special accommodations must be made for PWD's.

(c) Every exit must be clearly visible or the route to reach it must be conspicuously indicated so that every occupant of the building or facility knows the direction of escape. Any door, passage, or stairway that is neither an exit nor a way of exit access, and that is located or arranged so that it is likely to be mistaken for an exit, shall be identified by a sign reading "NO EXIT."

(d) Means of egress in FAA buildings or structures must, as a minimum, meet the requirements of the OSHA Means of Egress Standard at 29 CFR 1910, Subpart E.

c. Training. Before implementing the EAP, FAA organizations shall designate and train a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees, and shall review the plan with each employee covered by the plan initially when the plan is developed, at least annually thereafter, and whenever the plan or the employee's responsibilities or designated actions under the plan change.

d. Housekeeping. Responsible FAA officials shall control accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire emergency. The housekeeping procedures shall be included in the written fire prevention plan.

e. Maintenance. Responsible FAA officials shall regularly and properly maintain, according to established procedures, all equipment, fire, and life safety systems. The maintenance procedures shall be included in the written fire prevention plan.

2405. FIRE PROTECTION EQUIPMENT.

a. Fire Extinguishing Equipment. Three basic options exist at the time of a fire emergency. First, FAA supervisors may choose to evacuate all employees from the workplace at the time of a fire emergency. In this case, requirements regarding manual fire extinguishing equipment are mainly not applicable. Second, there are those workplaces where FAA supervisors have chosen to permit certain employees to fight fires with portable fire extinguishers, and to evacuate all other non-essential employees at the time of a fire emergency. Third, there may be those FAA workplaces where FAA supervisors have chosen to permit all employees in the workplace to use portable fire extinguishers to fight fires.

(1) Portable Fire Extinguishers. Where the FAA has chosen to partially evacuate the workplace or the affected area at the time of a fire emergency, and has permitted certain designated employees to remain behind to operate critical operations or to fight fires with extinguishers, those employees who will be remaining to perform incipient stage fire fighting must be trained in the principles of fire extinguisher use and the hazards involved with incipient stage fire fighting. The FAA FPPM is

responsible for the proper selection and distribution of fire extinguishers. The selection and distribution of fire extinguishers must reflect the type and class of fire hazards associated with a particular workplace or facility.

(2) Standpipe Systems (Fire Hoses). Fire hoses may be substituted for portable fire extinguishers. Any substitution must provide the same coverage that portable fire extinguishers provide, and must be readily accessible with the hose attached and ready for service.

b. Fire Detection, Suppression, and Alarm Systems. Fire detection systems must be designed by knowledgeable engineers or other professionals with expertise in fire detection systems, and must be maintained in compliance with applicable codes in an operable condition except during repairs or maintenance. When systems are out of service for repair or maintenance, an alternate means of detection and alarm must be provided (e.g., fire watch). A trained person knowledgeable in the operations and functions of the system must perform maintenance and testing of fire detection systems, including cleaning and necessary sensitivity adjustments.

c. Automatic Sprinkler Systems. Automatic sprinkler systems are the best fire protection system for the workplace.

(1) All automatic sprinkler designs in FAA facilities must provide the necessary discharge patterns, densities, and water flow characteristics for complete coverage in a particular workplace or zoned subdivision of the workplace.

(2) The FPPM shall assure that only code and systems-approved equipment and devices are used in the design and installation of automatic sprinkler systems.

d. Evacuation Alarms. If required by code, an alarm system shall be installed to provide warning for necessary emergency action as called for in the EAP, or for reaction time for safe escape of employees from the workplace or the immediate work area, or both. All alarm systems shall be maintained in operating condition except when undergoing repairs or maintenance, and shall be tested for reliability and adequacy at least monthly. When systems are going to be down for repair or maintenance, an alternate system is required.

2406. FAA FACILITIES & OPERATIONS.

a. Facility Control. Managers of facilities should ensure the following:

(1) That employees have been trained and understand their fire prevention and protection responsibilities within the work environment.

(2) That the facility is in a fire safe condition at all times.

(3) That occupant load information for assembly facilities (NFPA 101) is maintained in the FPPM's office. Every room constituting assembly occupancy and not having fixed seats shall have the occupant load of the room posted in a conspicuous location near the main exit from the room.

b. Airport Traffic Control Towers (ATCT). Requirements for plans concerning emergency action, fire prevention, and fire drills are consolidated in 29 CFR 1960.20, Alternate Standard for Fire Safety in Airport Traffic Control Towers (ATCT).

c. Aircraft Ground Operations. Aircraft ground operations shall meet the requirements of the NFPA 407, Aircraft Fuel Servicing; NFPA 409, Aircraft Hangars; and NFPA 410, Aircraft Maintenance.