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Civil Engineers

FIRE PROTECTION PROGRAM



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This instruction establishes practices and procedures designed to provide maximum fire safety to all persons and property within the boundaries of this base and its supported sites. It designates responsibilities and the required duties of all personnel appointed to positions relative to the fire prevention program. The requirements of this instruction apply to all persons, military and civilian, permanently or temporarily assigned to this installation, including off-base supported activities. It also applies to contractor and concessionaire personnel working on this installation and its sites. All personnel must exercise constant vigilance in the matter of fire prevention. Regulations and manuals cited in this instruction are: AFI 32-2001, AFOSH Stds. 91-5, 127-17, 127-43, 127-56, 127-66, TO 00-125-72, TO 36-1-57, NFPA Std. 10, NFPA Std. 40, NFPA Std. 40E, NFPA Std. 101, NFPA Std. 70, and Military Handbook 1008C.

1. Objectives. There are two goals to the fire prevention program. The first is to eliminate fire hazards. The second is to keep small fires from becoming large expensive fires. To be able to meet these two goals, we must work in two distinct areas. First, we must motivate our personnel to use only safe practices and to be aware of and help do away with conditions that might create fire hazards. The second area is fire protection deficiencies. This area deals with poorly designed or constructed buildings which could allow a fire to spread rapidly throughout a building or cause people to become trapped inside a building. While the Base Fire Chief manages the program, all commanders must enforce the program and all personnel must execute the program.

2. Publicizing. The contents of this instruction will be part of each unit's Newcomers Orientation Program.

3. General. Fire prevention is a 24-hour-a-day responsibility, and its importance cannot be over stressed. Violations of this instruction will subject the violators to appropriate disciplinary or administrative action.

4. Authentic Standards. Fire protection standards developed by recognized professional organizations will apply to conditions not covered by this instruction or other Air Force publications. Such organizations include the National Fire Protection Association (NFPA), the Underwriters Laboratory (UL), and the Uniform Building Code Standards. Hazardous conditions for which no criteria has been developed will be corrected as directed by the Base Fire Marshal or the Base Fire Chief.

5. Organization and Responsibilities. The Support Group Commander is responsible for the protection of resources under the jurisdiction of Charleston Air Force Base and exercises primary fire protection responsibility through the Base Civil Engineer. The Support Group Commander implements higher headquarters' directives to control local fire hazards.

5.1. The Base Civil Engineer is the Base Fire Marshal and is responsible to the Support Group Commander for conducting the Fire Protection Program in accordance with AFI 32-2001.

5.2. The Base Fire Chief is responsible to the Base Fire Marshal for fire suppression, fire prevention, and management of the Fire Protection Flight.

5.2.1. Supervision of Firefighting Operations: The Base Fire Chief or senior firefighting representative at the scene of a fire, explosion, or other emergency is in complete charge of all firefighting and rescue operations. During these operations, persons outside the fire protection organization will not give orders to or in any way interfere with fire officials or firefighters. Unauthorized personnel are restricted from the area during such emergencies.

5.2.2. Authority to Commandeer: The senior firefighting representative at the scene of an emergency may commandeer available military vehicles, equipment, and personnel considered necessary for the prompt extinguishment of fires or the rescue of personnel. The senior firefighting representative may also solicit voluntary civilian assistance.

5.3. Fire Prevention Section personnel are tasked to motivate the base population in fire prevention techniques. They will conduct fire prevention visits and take action to ensure fire hazards are corrected. They will also coordinate with the appropriate Civil Engineer zone to ensure fixed fire suppression/detection systems are inspected, tested and properly maintained.

5.4. Unit commanders and supervisors are responsible for and must ensure that fire prevention procedures are established and practiced in each facility under their control. This may include requesting the Technical Services Section to assist unit fire prevention training or help in correcting fire deficiencies. They must also ensure fire inspectors have access to all areas of their facilities to conduct fire prevention visits and to ensure appropriate disciplinary action is taken when willful misconduct or negligence involving fire prevention policies results in loss or damage to government property or initiating false alarms.

5.5. Facility managers are responsible to unit commanders for the safe condition of facilities under their jurisdiction as specified in AFI 32-2001. The facility manager, alternate, or supervisor of the operation being visited will accompany the fire inspector. Facility managers will develop and publish an appropriate fire evacuation plan. This plan will include the emergency removal of aircraft from hangars and fire reporting procedures. Coordinate these plans through the unit commanders of all units occupying a facility and the Base Fire Chief.

5.6. The fire department will be informed of repairs which will cause roads to be blocked. The Civil Engineers will also ensure priority is given to returning fire protection systems to service.

5.7. Upon notification of a fire or other emergency situations, Security Forces will dispatch a patrol to the scene to provide traffic and crowd control. Personnel not directly involved with the emergency operation will be kept a minimum of 300 feet from emergency operations.

6. Procedures for Reporting a Fire. To report a fire on base or from a commercial/residential telephone, dial 911. All fires regardless of size will be reported immediately, even if the fire has been extinguished. Any person who discovers a fire, sees, or smells smoke will alert all occupants by either activating the fire alarm or by voice and then calling the fire department. When reporting a fire, give your name, the building number, street address and room number (if applicable), what is on fire, and the telephone number you are calling from. Stay on the telephone until the fire department communications operator has all the information he/she needs. Wait outside until the fire department arrives. If the fire is in the early stages, attempts should be made to extinguish or control the fire until the arrival of the fire department, but only if this can be done safely. Each telephone must have the fire reporting number posted.

7. Fire Extinguishers: AFOSH Standard 127-56 and NFPA Standard 10 are the governing directives regarding selection, maintenance, inspection, and placement of fire extinguishers. These standards also outline the training requirements for assigned personnel and documentation of training.

8. Places of Public Assembly and Recreational Facilities: AFOSH Standard 127-56 provides guidance for fire prevention in places of public assembly. This standard also outlines training requirements for employees and documentation of training. The operation of commercial cooking facilities also falls under this standard.

9. Closing Procedures for Places of Public Assembly:

- 9.1. Complete a physical inspection of the building for potential fire hazards.
- 9.2. Disconnect all non-essential electrical appliances.
- 9.3. Ensure all trash containers are emptied into dumpsters located outside the facility.
- 9.4. Ensure contents of smoking material receptacles are disposed of outside the facility away from combustible and flammable storage.
- 9.5. Inspect all sofa and chair cushions for smoldering cigarettes, etc. Removable cushions will be removed and inspected. Furniture having non-removable cushions will be closely examined.
- 9.6. Walk-through inspections may be performed by the Base Fire Chief, his deputy, fire protection supervisors, and Fire Prevention personnel on a no-notice basis.

10. Fire Evacuation Drills and Procedures.

- 10.1. MONTHLY: Child Care and Youth Center facilities.
- 10.2. QUARTERLY: Medical Facilities.
- 10.3. All other facilities will have fire evacuation drills conducted IAW applicable USAF, local and National Fire Code criteria.

10.4. All fire evacuation drills must be coordinated with the Fire Prevention section. These drills will include not only evacuation but also actions that personnel would normally take in the event of a fire. These drills will be documented in the facility folders maintained by the Fire Department.

11. Exit Doors and Signs.

11.1. Exit doors during periods of occupancy will not be locked, bolted, or otherwise fastened nor obstructed in any way to prevent the door from opening by an interior panic release device.

11.2. Aisles leading directly to exits will have at least 36-inches clear width and will not be obstructed in any manner.

11.3. All doors that have been approved to be blocked will have signs posted on both sides of the door stating "Door Blocked" with letters not less than 3-inches high and 1-inch wide. Requests to permanently block a door shall be submitted in writing to 437 CES/CEFT for approval/disapproval.

11.4. Fire doors and shutters equipped with fusible links or other safety devices will not be tampered with nor obstructed in any manner which would interfere with its intended closing. Fusible links will not be painted nor modified in any manner.

11.5. All exit signs must meet the requirements of AFOSH Std 127-66 and NFPA Std 101. New installation or replacement signs will comply with MIL HNDBK 1008C and ETL 96-50. When illuminated signs are installed, they must operate whenever the facility is occupied. The facility manager will replace burned out bulbs in lights located within 10 feet of the floor.

12. Fire Prevention Visits. Fire prevention inspectors, under the direction of the Assistant Chief for Fire Prevention, will conduct facility/area fire prevention visits on a frequency directed by AFI 32-2001 and the Base Fire Chief. Facility managers, alternates, or section supervisor will accompany the inspector at the time of inspection. The visit will be documented on an AF Form 218 when no hazards are noted or corrected on the spot. An AF Form 1487 will be used to identify fire hazards or deficiencies noted during the visit but not corrected on the spot, or whenever a trend of minor hazards has been noted. The inspector will brief personnel on actions required to correct the hazards and the disposition of the AF Form 1487. AF Form 1487s issued for failure to support or establish an effective fire prevention program will be routed to the Support Group Commander as outlined in AFI 32-2001.

13. Warehouses and Storage Facilities: All warehouses and storage facilities will be kept in a clean and orderly manner at all times. Working supplies of combustible packing material will be confined to bins or boxes provided for storage. These receptacles will be constructed of metal or noncombustible material and equipped with proper covers or lids.

13.1. Stock clearances will be as follows:

13.1.1. A minimum of 36 inches in all directions between stock and installed fire protection equipment.

13.1.2. A minimum of 36-inch clearance below sprinkler heads when stock heights exceed 15 feet.

13.1.3. An aisle space of no less than 36-inches wide leading to fire protection equipment.

13.1.4. Stacks of supplies will not be stored above the horizontal level of the lower truss member.

13.1.5. A minimum of 18 inches will be maintained between stock and electrical fixtures, heating ducts, or heating devices.

13.2. Combustible supply stock (i.e. lumber, paper, etc.) stored outside of a facility shall not be placed or stacked next to building walls.

14. Use and Storage of Flammable Liquids, Chemicals, and Gases. The use of flammable liquids, chemicals, and gases will be in accordance with AFOSH Standard 127-43 and the National Fire Codes. Drums, cylinders, and other containers used for storage of hazardous materials will not be stored in general storage areas. Outside storage areas will comply with AFOSH Standard 127-43. Proxylon plastics and nitrocellulose films or other flammable plastics will be stored and handled in accordance with NFPA Standards 40 and 40E.

14.1. Fuel Spills: Should a fuel/flammable liquid spill occur around aircraft, motor vehicle, ground power equipment or storage tank, all maintenance and servicing operations must stop immediately and the base Fire Department notified. Every effort must be made to prevent spilled fuel from entering storm or sanitary sewers or floor drains.

15. Electrical Installation, Equipment, and Appliances. All new installation or remodeling of electrical systems will be performed or inspected by Civil Engineer craftsmen or qualified and licensed electrical contractors. Installation must comply with the provisions of NFPA Standard 70, The National Electric Code.

15.1. Use of extension cords will be kept to a minimum and will not be used in lieu of permanent wiring. There will be no splices made to extension cords. Multiple adapters are not authorized. Strip outlet type extension cords are authorized provided they are equipped with overcurrent protection. Cords will not be draped over pipes, equipment or other items, nor will they be run through walls or attached to any portion of the building.

15.2. All electrical panels will be clearly marked to identify the areas controlled. No circuits will be taped in the open position.

15.3. All switches, receptacles, junction boxes, panel boxes, etc. will have cover plates installed.

15.4. Electrical space heaters must be UL approved, thermostatically controlled, and in good repair. Additionally, heaters with exposed heating elements must be equipped with tip switches which automatically turn the heater off when tipped or turned over. Radiator type electric heaters with heating elements inaccessible and entirely immersed in a non-combustible liquid are preferred. Open flame heaters burning kerosene or other flammable liquids are prohibited.

15.5. Combustible or flammable decorations will not be draped or hung from electrical wiring or appliances.

15.6. The use of UL approved coffee pots in lodging facilities is permitted; however, the use of hot plates and immersion heaters is prohibited.

16. Heating Systems and Cooking Appliances. Mechanical rooms will be kept free of materials not directly related to their operation and will be kept locked at all times. Any adjustments or servicing to heating equipment will be done by Civil Engineers. Kitchen ranges, space heaters, electrical appliances, deep fat fryers and barbecue grills will not be left unattended while in use.

17. Painting. Spray painting will meet the requirements of AFOSH Standard 127-17. Paint will be stored in tightly covered containers. Wiping rags will be stored in self-closing metal containers and properly marked. Work clothing will be stored in metal lockers vented at the top. Storage of paints, varnishes and other material will be in accordance with AFOSH Standard 127-43.

18. Draperies, Curtains, and Decorations. Only flame-resistant draperies and curtains will be installed in facilities. A copy of the written guarantee from the manufacturer will be kept on file with the facility manager.

18.1. Room decorations, such as nets, must be flame-resistant and used with sound judgment. Decorative items of combustible material or items that could entrap occupants or fire/rescue personnel will not be hung from ceilings or suspended where personnel could become entangled in an emergency situation. These include, but are not limited to, sheets, blankets, parachutes, netting, rope, etc.

18.2. Candles may only be used in facilities providing food service or worship services. Candles for food service facilities must be of the enclosed type and approved by the Base Fire Chief. They must be located to prevent ignitions with other combustible material.

18.3. The burning of incense in facilities other than the base chapel is prohibited.

18.4. The use of combustible vegetation (live Christmas trees, cornstalks, silk, palms, hay, etc.) for seasonal/special occasion decoration will be held to a minimum and requires the *advance approval* of the Base Fire Chief.

18.5. All artificial seasonal/holiday decorations must be UL or Factory Mutual approved. Christmas trees and other decorations must not block nor obstruct exits or hallways leading to exits. Only artificial Christmas trees are allowed in dormitories.

19. Vehicle Parking and Operations. Vehicles will not be parked in any fire lane or block the approach to any building. Vehicles will not be parked any closer than fifteen (15) feet from fire hydrants, sprinkler system fire department connections or other firefighting equipment. Vehicles will not be left unattended in front of or near hangar doors or nose docks. Vehicles operating in hazardous locations must meet the requirements of TO 36-1-57.

20. Welding and Cutting Operations. Welding and cutting will be conducted in accordance with AFOSH Standard 91-5. An AF Form 592, USAF Welding, Cutting, and Brazing Permit, or a computer generated form, will be issued for all hot work not accomplished in an approved shop or area. This includes all organizations, contractors, or concessionaires performing work on the installation or its sites. Personnel performing the welding, cutting, or other type of hot work must be qualified and certified to perform that particular task.

21. Shops and Hangars. All designated fire lanes around hangars, machine shops, and aircraft parking areas will remain unobstructed, except for acts necessary to the mission of the base. The entire length of the hangar door shall be considered the fire lane. Facilities designated as hangars that are used for other purposes will have a fire lane designated at the center of the hangar door entrance of not less than 15 feet in width. Responsible organizations will prepare plans for the emergency removal of aircraft in the event of a fire. Two copies of the "Emergency Removal Plan" will be submitted to the Base Fire Chief for approval. These plans will be conspicuously posted inside the facility.

22. General Storage for Work Areas. When a facility occupant needs to store small amounts of flammable liquids for required functions, AFOSH Standard 127-43 must be met. Cabinets and containers must be clearly labeled "Flammables". These cabinets need not be painted yellow. Rooms equipped with furnaces, boilers, water heaters, and air conditioners must not be used for any storage.

23. Building Modifications. Any project to be accomplished by an organization or individual which changes the configuration of a facility in any manner is classified as "Self-Help". An AF Form 332, Work Request, must be used to request approval for all "Self-Help" projects. Unauthorized modifications will be corrected by the organization when directed by the Base Civil Engineer.

24. Contractors and Concessionaires. Contractors and concessionaires will comply with this instruction while working on this installation or its sites. Contractors will receive fire prevention instructions at the pre-construction meetings.

25. Fire Protection in Military Family Housing. Good housekeeping is the first step to establishing fire prevention in the home. While good housekeeping practices and techniques cannot be totally explained in this publication, several mandatory requirements are listed. The military sponsor is responsible for the fire safety of his/her quarters. Newly assigned occupants will be briefed on their fire prevention responsibilities within 30 days of moving into base housing by fire prevention personnel. A fire resulting from negligence may be cause for the occupant to be held liable for damages and possible forfeiture of base quarters. The sponsor residing in family housing or mobile home is responsible for and must take steps to ensure that the following requirements are met:

25.1. All adults, children old enough to be left unattended, and baby-sitters will be familiar with the emergency reporting number "911". Emergency numbers must be affixed to each telephone.

25.2. All fires will be reported to the fire department regardless of whether the fire has been extinguished or not.

25.3. Occupants wishing to modify their quarters will submit their request on an AF Form 332, Work Request. Unauthorized modifications will be removed by the occupants at their expense when directed by the Base Civil Engineer.

25.4. Exhaust fans will be kept clean and free of grease accumulation.

25.5. Cooking equipment will not be left unattended when in operation.

25.6. Central heat and air conditioning filters will be replaced at least monthly.

25.7. Storage of any kind in furnace or water heater rooms is prohibited. **EXCEPTION:** Storage in attics is limited to the floor area.

25.8. Clothes dryer vents and filters will be kept free of excessive lint.

25.9. The use of multi-plug adapters is prohibited. **EXCEPTION:** Multi-strip outlets with overload protection are permitted. Light fixtures will not be modified and will not be used to supply electrical power to any other device. The use of frayed or worn electrical extension cords is prohibited. Cords will not be placed under carpets, rugs, doors, or through walls or ceilings.

25.10. Containers used to store gasoline must be UL approved. These containers will be stored in the outside storage rooms. Quantities are limited to 5 gallons per housing unit. **NOTE:** Use of electrical appliances in storage rooms in which flammable/combustible liquids are stored is prohibited.

- 25.11. Barbecue equipment will not be left unattended while in use. While in use, it will be kept at least 10 feet from the facility and any combustible material.
- 25.12. Matches, lighters, or other flame-producing devices will be secured to deny access by children.
- 25.13. Doors to outside storage sheds will be kept locked at all times.

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