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**Fire Protection**

**45TH SPACE WING FIRE AND EMERGENCY  
SERVICES PROGRAM**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFD 32-20, *Fire Protection*. It establishes policies, procedures, and responsibilities to eliminate fire hazards and to minimize the loss of life, injury, and property damage should a fire occur. This instruction applies to all military personnel, civilians, contractors, and concessionaires located on or conducting business within the confines of the 45th Space Wing (45SW). Occupants shall keep in each unit, agency, and publication library and in a conspicuous location a copy of this instruction in each regularly occupied facility for review and use. Failure to accept this responsibility can adversely affect the overall mission of the 45th Space Wing

This publication does not apply to any person, location or facility, either outside the operational control of or off the physical property controlled by the 45 SW.

***SUMMARY OF REVISIONS***

**This document is substantially revised and must be completely reviewed.**

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## Chapter 1

### GENERAL INFORMATION

**1.1. Program Objective.** A successful fire prevention program requires command support at all levels and the continuing efforts of all 45 SW personnel. The effects of fire have a direct impact on the ability of the 45 SW and all assigned organizations to accomplish the mission.

**1.2. Applicability.** This instruction applies to all personnel, organizations and activities within the 45 SW or tenant units, including active duty personnel, contractors, concessionaires, military family housing occupants and any other person/s while on property controlled by the 45 SW.

1.2.1. Where applicable and to the extent possible this instruction shall apply to Patrick Air Force Base (PAFB), Cape Canaveral Air Force Station (CCAFS), Antigua Air Station, Ascension Auxiliary Field, Jonathan Dickenson Missile Tracking Annex, Malabar Tracking Annex and all other sites under the jurisdiction of the 45 SW, unless otherwise directed in the contract statement of work.

1.2.2. This instruction is not intended to supersede any legally mandated or contractual requirements.

1.2.3. Adherence to established fire prevention practices is the responsibility of all personnel who work for, or are associated with the 45 SW.

1.2.4. This instruction has been developed to afford a minimum level of fire protection and life safety guidance to help insure the protection of Air Force personnel and property and the general public from the dangers posed by fire, hazardous materials and other potentially life threatening or injury causing situations/conditions and to minimize the effect of an incident/accident should it occur.

1.2.5. It is the responsibility of all 45 SW personnel to conduct themselves in a manner which does not pose an unnecessary risk of fire or injury to themselves or others and to abide by the contents of this instruction.

### 1.3. Equivalencies and Alternatives.

1.3.1. Nothing in this instruction is intended to prevent the use of systems, methods or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, or safety.

1.3.2. If a variance from an existing standard is required the requestor has the right to submit the request for variance to the Authority Having Jurisdiction (AHJ). The requestor must provide adequate documentation for the variance request plus any technical specifications or other documentation. Once the need is determined and the request package has been developed submit the request to the AHJ for review. The requestor must adequately demonstrate to the AHJ that the suggested alternative method meets or exceeds the intent of the minimum standard and that the alternative method, device or procedure is acceptable and safe.

### 1.4. Definitions.

1.4.1. AF Form 1487, **Fire Prevention Visit Report**. This is the initial document used by the Fire Department Fire Prevention Office to document either a fire safety deficiency or a fire hazard. This form should contain a minimum of three copies, one for the facility manager, one for the functional manager, and one for the fire prevention office.

1.4.2. AF Form 332, **Base Civil Engineer Work Request**. This form is the initial request for any and all types of work either to existing facilities or areas or new construction

1.4.3. Air Force Occupational and Environmental Safety, Fire Prevention and Health Standards (AFOSH) Standards. These standards constitute supplementary guidance to Occupational Safety and Health Administration (OSHA) Standards, and are the backbone of the Air Force Occupational and Environmental Safety, Fire Prevention and Health Programs

1.4.4. Authority Having Jurisdiction (AHJ). The approval authority for processes, procedures, and programs relating to fire protection and prevention. The Commander, 45th Space Wing (45 SW/CC), or his or her designee, is the AHJ for fire prevention matters pertaining to the 45 SW and may approve short-term (e.g., less than 18-month duration) deviations to NFPA standards. (See AFI 32-2001, paragraph 1.7.3.)

1.4.5. Classification of occupancy. See definition in NFPA 101, Chapter 6, Section 6.1.

1.4.6. Engineering Technical Letter (ETL). Regulatory guidance issued by the Air Force Civil Engineering Support Agency (AFCEA) at Tyndall AFB FL. ETLs are issued for specific occupancies. Example: ETL 98-7 Fire Protection Engineering Criteria: New Aircraft Facilities.

1.4.7. Facility Managers. Individuals appointed by the functional manager to ensure a sound fire prevention program is being enforced in each facility under their area of jurisdiction.

1.4.8. Fire Chief. The PAFB Fire Chief is the 45 SW Fire Chief. The Fire Chief administers, implements, and oversees the 45 SW fire protection program as directed by the Fire Marshal. The Fire Chief reports directly to the Base Civil Engineer/Fire Marshal (45 CES/CC). The Fire Chief's responsibilities are listed in DODI 6055.6, AFI 32-2001, 45 SWI 32-2001 and AFOSH Standards 91-56 and 91-301.

1.4.9. Fire Hazard. Any condition or situation which if not corrected could cause a fire.

1.4.10. Fire Marshal. The Commander, 45th Civil Engineering Squadron (45 CES/CC) is the 45 SW Fire Marshal. The Fire Marshal is responsible for the overall administration and implementation of the 45 SW Fire Protection Program.

1.4.11. Functional Manager. The senior operating officials at all levels, exercising managerial control of an activity or operation. These individuals are usually the officials who can acquire and commit resources for the correction of fire hazards and deficiencies. The Squadron Commander (or equivalent) usually performs the duties of a functional manager. The functional manager for the Army Air Force Exchange Service (AAFES) is the AAFES general manager. The functional manager for contractors could be the contract monitor or another person who meets the definition of the position as specified in AFOSH Standard 91-301, Attachment 1, Page. 39, Terms.

1.4.12. Fire Protection Devices. Any facility feature or device, which aids in fire suppression, detection, reporting, limits or helps to control the spread of fire or smoke. A device, construction feature or system which creates an area of refuge or safe egress route for evacuating personnel in the event of a fire. These features include, but are not limited to automatic fire suppression/extinguishing systems, manually activated systems, automatic fire detection/notification systems, manually activated notification systems, fire extinguishers, fire or smoke doors, smoke control systems, devices for assisting physically impaired personnel during an emergency evacuation, emergency lights, exit lights, etc.

1.4.13. Fire Safety Deficiency (FSD). In accordance with AFOSH Standard 91-301, Attachment 1, Page 39, *Terms*, a condition which reduces fire safety below a level acceptable to the AHJ, including noncompliance with standards, but which by itself cannot cause a fire to occur.

1.4.14. Hazardous Materials (HazMat) team. See definitions in OSHA 1910.147, DODI 6055.6, AFI 32-2001, NFPA 471/472/473.

1.4.15. High Voltage. Wiring, equipment, circuit breakers, etc., that under normal conditions operates with 600 or greater volts of electricity.

1.4.16. National Fire Protection Association (NFPA). This is the primary source for fire protection/prevention guidance/requirements. The NFPA National Fire Codes were adopted by the Air Force, with certain authorized modifications, by AFI 32-2001.

1.4.17. Military Construction Handbook 1008C (MIL-HDBK-1008C) contains construction requirements in addition to those required by the Uniform Building Code (UBC), National Fire Protection Association (NFPA) or other national consensus standards. MIL-HDBKs are issued by the governing authority and shall be used in lieu of similar guidance issued by UBC, NFPA or other applicable national consensus standards.

1.4.17.1. If conflicting guidance for the same subject or issue exists consult MIL-HDBK-1008C for order of

1.4.17.2. For new construction projects the edition of MIL-HDBK-1008C that is current at the time the project is submitted for design shall apply.

1.4.18. Risk Assessment Code (RAC). In accordance with AFOSH Standard 91-301, Attachment 1, Page 39, *Terms*, an expression of the degree of hazard associated with an occupational hazard or deficiency that combines hazard severity and mishap probability into a single numeric identifier. RAC codes are assigned by Safety, Fire and Health Officials and are assigned to fire hazards, but are not normally assigned to fire safety deficiencies.

1.5. The use, storage, handling, treatment, transportation and/or disposal of any material that is a toxic or hazardous material shall be conducted in accordance with all federal, state and local environmental laws, regulations, ordinances, executive or judicial orders and permits. Prior to commencement of any activity involving hazardous waste, fuel, and other chemicals, a spill prevention and response plan shall be completed and approved by all agencies having regulatory jurisdiction over such a plan. Such plan shall comply with all applicable requirements and shall be updated from time to time as may be required to comply with changes in site conditions or applicable requirements.

## Chapter 2

### RESPONSIBILITIES ASSIGNED

#### 2.1. The 45 SW Fire and Emergency Services Program.

2.1.1. The fire and emergency services program has two primary objectives.

2.1.1.1. To either eliminate or reduce as much as possible the causes of fire and-or other life safety hazards.

2.1.1.2. To minimize the potential for loss of life, injury, and or property damage should a fire, hazardous materials incident, medical emergency, motor vehicle accident, aircraft crash, confined space rescue, or any other rescue situation occur.

2.1.2. To meet these objectives the fire prevention section must be constantly vigilant and must have the support of everyone assigned to or associated with the 45 SW. Fire safety is everyone's responsibility.

#### 2.2. Specific Responsibilities.

2.2.1. Unit Commanders and Functional Managers.

2.2.1.1. Each commander and functional manager shall be responsible for administering the fire and emergency services program within their respective functional areas/facilities and for initiating corrective actions for fire hazards and fire safety deficiencies.

2.2.2. Unit commanders and functional managers shall accomplish the following:

2.2.2.1. Ensure that supervisors understand and enforce the contents of this instruction.

2.2.2.2. Initiate administrative or disciplinary actions, as they deem appropriate, when there is misconduct or negligence resulting in fire damage to government property (including Military Family Housing).

2.2.2.3. Take disciplinary action, as they deem appropriate, when there is malicious activation of, damage to or tampering with any fire protection device or equipment.

2.2.2.4. Appoint facility managers.

2.2.2.5. Initiate an AF Form 3 for RAC 1,2,3 fire/safety hazards that cannot be corrected within 30-days and send the Form 3 to the appropriate organization for coordination. Please insure that you coordinate with the fire department for fire safety related issues and with both the fire department and the safety office for safety related issues. See AFOSH Standard 91-301 for additional information/guidance.

#### 2.3. Facility Managers and Supervisors.

2.3.1. Shall be responsible for insuring that areas under their control are maintained in a fire safe condition and that all fire hazards are corrected as quickly as possible.

2.3.2. Facility managers shall be appointed by their functional managers and are directly responsible to their functional managers and-or unit commanders for insuring that their respective facilities/areas are in compliance with this instruction and the following:

2.3.2.1. Reported or discovered fire hazards are corrected as quickly as possible.

2.3.2.2. The fire prevention office is periodically informed as to the status of any open fire safety related discrepancies.

2.3.3. An AF Form 1118, **Notice of Hazard**, may be posted in a facility by the fire department if open uncorrected hazards exist.

2.3.3.1. The fire prevention office shall insure that the information on the AF Form 1118 is briefed to all affected employees and that any recommended/required interim control measures are followed.

2.3.3.2. The AF Form 1118 shall remain in place until the hazard is corrected. The AF Form 1118 will then be removed by the fire prevention office.

2.4. Facility managers, supervisors or their designated representatives shall accomplish the following:

2.4.1. Accompany fire prevention inspectors during all fire prevention visits.

2.4.2. Comply with the fire prevention duties specified in AF Pamphlet 87-8, *Building Manager's Handbook*.

2.4.3. Initiate an AF Form 332, **Base Civil Engineer Work Request**, (or equivalent) to correct any hazards or deficiencies identified during the fire prevention visit that cannot be corrected on the spot.

2.4.3.1. Ensure that all AF Forms 332 are coordinated at a minimum with the fire prevention office, safety office and bio-environmental engineering.

2.4.4. Conduct inspections on all hand held, portable fire extinguishers in the facilities/areas under their control monthly. Maintain a record of that inspection including the location and condition of each extinguisher in either the facility fire prevention folder or in the form of a monthly extinguisher inspection tag affixed to each extinguisher. **Note:** CCAFS uses a computerized, scanner, barcode program.

2.4.4.1. Ensure that all discrepancies found on fire extinguishers, installed fire protection systems or any other fire protection device or equipment is immediately reported to the fire prevention office.

2.4.5. Develop a written fire reaction plan for personnel in each building/area to follow in the event of a fire. The fire reaction plan shall include the following:

2.4.5.1. Fire reporting procedures.

2.4.5.2. Fire evacuation routes.

2.4.5.3. First aid firefighting procedures.

2.4.5.4. The location of and activation procedures for installed fire protection notification/evacuation/reporting/suppression systems.

2.4.5.5. Any special procedures or conditions associated with the facility, operation, area, equipment etc. Examples include: Procedures for opening the hanger doors or removing aircraft from inside a hanger, protecting or safeguarding high value equipment, classified documents or equipment, dealing with fuel spills or hazardous materials.

2.4.5.6. Guidance on how to develop a plan is provided in [Attachment 1](#).

2.4.5.7. Fire reaction plans shall reflect the most current conditions, hazards and operations associated with the facility or area.

2.4.5.8. Fire reaction plans shall be updated immediately as changes occur.

2.4.5.9. Fire reaction plans shall be posted in a conspicuous location and a copy of each plan shall be maintained in the facility fire prevention folder. Exception: In facilities having less than 10-employees the fire reaction plan may be verbally briefed as opposed to being posted.

2.4.5.10. The plan should include a basic floor-plan of the facility and should indicate travel routes to exits by means of directional arrows.

2.5. The 45 SW Fire Marshal is responsible to the 45 Support Group Commander (45 SPTG/CC) in all matters pertaining to the development, application, and effective performance of fire protection operations as well as the implementation and enforcement of the fire prevention program.

2.6. The 45 SW Fire Chief is responsible for the development, implementation and management of the 45 SW fire protection program.

2.7. The fire prevention inspector's duties include the following:

2.7.1. Surveying facilities/areas/operations in order to insure they are fire safe.

2.7.2. Ensuring facilities/areas/operations are in compliance with federal law, national consensus standards, and applicable Air Force, DoD and Air Force instructions and standards. **Note:** For guidance concerning precedence and enforcement of criteria for military construction projects please see Chapter 1 of MIL-HDBK-1008C or its most recent edition.

## Chapter 3

### PROGRAM ELEMENTS

#### 3.1. Fire prevention visit procedures.

- 3.1.1. The fire prevention visit is the quality control element of the 45 SW fire prevention program.
- 3.1.2. Fire prevention visits are conducted annually in accordance with AFOSH Standard 91-301.
- 3.1.3. The Fire Chief determines which facilities will be visited.
- 3.1.4. The facility manager, alternate, supervisor or representative shall accompany the Fire Prevention Inspector throughout the fire prevention visit.

#### 3.2. A facility fire prevention folder shall be developed for each facility and shall contain the following:

- 3.2.1. TAB A: A copy of 45 SWI 32-2001.
- 3.2.2. TAB B: A copy of any AF Form 1487, **Fire Prevention Visit Report** (or equivalent) documenting any discrepancies that were found with the facility, procedures etc.
- 3.2.3. TAB C: All open AF Form 332 work requests (or equivalent) pertaining to fire or life safety issues.
- 3.2.4. TAB D: Documentation of all fire evacuation exercises that have been conducted on that facility or area within the past two years as well as any fire prevention or safety related training.
- 3.2.5. TAB E: Facility Managers Fire Prevention Checklists. Emergency lighting monthly and annual testing forms. Monthly fire extinguisher inspection forms.
- 3.2.6. TAB F: Permits, Authorizations, Waivers, Requests for variance.
- 3.2.7. For facilities on PAFB the fire prevention office recommends that a six part folder be used. Six part folders are available at the PAFB fire prevention office, bldg. 810. For CCAFS, Ascension, Antigua contact your local fire prevention office for guidance.

#### 3.3. All facility occupants shall be knowledgeable in fire reporting, evacuation, and first aid fire-fighting procedures.

#### 3.4. Facility Managers/Supervisors/Contractors shall insure the following:

- 3.4.1. All fire suppression, detection, notification and suppression systems and devices and equipment are maintained in good condition and that all devices work as designed.
- 3.4.2. All required fire protection/safety related construction features/devices are in place and serviceable. This includes devices and facility features such as those required to segregate or separate special fire hazard occupancy areas, areas of refuge, fire rated pressurized stairwells, ADA required wheelchair lifts or doors, fire doors, draft stops, draft curtains, etc.
- 3.4.3. All heating, fuel handling, and similar potentially hazardous devices or equipment are in proper working condition.
- 3.4.4. Air Force smoking policy and the control and proper disposal of smoking materials are strictly enforced.

- 3.4.5. A drawing (e.g. floor-plan) of each facility is on file and is updated as design changes are made to the structure. Changes to the original floor-plan of a facility will usually necessitate changes to the fire evacuation plan. The evacuation plan shall be updated as soon as changes occur.
- 3.4.6. All electrical equipment/devices/outlets in facilities under their control are in good condition, are properly maintained and that the amperage and or voltage ratings are not exceeded.
- 3.4.7. Proper housekeeping practices are strictly enforced.
- 3.4.8. The condition and accessibility of fire exits and escapes.
- 3.4.9. The proper separation, storage, and identification of corrosives, flammables, explosives or any other hazardous or dangerous materials, devices or equipment.
- 3.4.10. All unauthorized self-help projects, such as installing unauthorized wood paneling, sub-standard walls, sub-standard electrical wiring, false ceilings, etc., are immediately reported to the fire prevention office as soon as discovered.
- 3.4.11. Assigned fire extinguishers are inspected monthly to ensure serviceability and that each extinguisher is in the location assigned by the fire prevention office.

### 3.5. Inspection Process.

- 3.5.1. Facility Managers, supervisors or contractors or their designated representatives shall accompany the fire inspector during fire prevention visits.
- 3.5.2. If a hazard is discovered that presents an imminently dangerous situation during a fire prevention visit it shall be brought to the attention of the supervisor who shall take immediate action to either eliminate the hazard, reduce the hazard to an acceptable level or shall halt the operation and withdraw exposed personnel until such time that the operation can be performed safely.
- 3.5.3. Upon completion of each visit the Fire Inspector shall brief the accompanying individual on the condition of the facility/area that was inspected. Any hazards or deficiencies discovered shall be briefed and corrective actions shall be recommended.
- 3.5.4. When a hazard or deficiency is found during a visit and cannot be corrected on the spot, a copy of the AF Form 1487, **Fire Prevention Visit Report**, (or equivalent) shall be submitted along with any AF Form 332 work request (or equivalent) needed to initiate the required corrective action.
  - 3.5.4.1. The Facility Manager/Supervisor/Contractor shall be responsible for submitting the AF Form 332.
- 3.5.5. One copy of the AF Form 1487 shall be forwarded to the Functional Manager by the Facility Manager for review, coordination and signature.
- 3.5.6. The Functional Manager shall ensure the following:
  - 3.5.6.1. Prompt actions shall be taken to eliminate or reduce the hazard to an acceptable level of safety.
  - 3.5.6.2. Actions taken shall be documented on the AF Form 1487.
  - 3.5.6.3. The Functional Manager's signature shall be on the AF Form 1487.
  - 3.5.6.4. The answered and signed copy of the AF Form 1487 shall be forwarded to the fire department on or before the suspense date shown in block 4 of the form 1487.

3.5.6.5. If the suspense date is not met, and the fire prevention section has not been contacted for an extension, a past-due notice may be initiated by 45 SW Fire Marshal and sent to the Functional Manager.

3.6. The Facility Manager/Supervisor/Contractor shall insure the following:

3.6.1. Corrective actions shall be carried out promptly and shall be properly documented.

3.6.2. The Functional Manager shall be briefed on all corrective actions taken and the status of any open, uncorrected hazards or deficiencies.

3.6.3. The Functional Manager shall address reported deficiencies or hazards by documenting the corrective actions taken on page 2 of the AF Form 1487. The Functional Manager must sign the AF Form 1487.

3.6.3.1. One copy of the answered and signed AF Form 1487 shall be retained in the Facility Fire Prevention Folder for a period of at least two years, or until all hazards identified on the report are corrected, whichever is greater.

3.6.3.2. One copy of the AF Form 1487 shall be submitted for reference in conjunction with any AF Form 332 required to correct the fire safety deficiencies that were identified during the fire prevention visit.

3.6.3.2.1. Submit the AF Form 332 (or equivalent) to the 45 CES Customer Service Desk (or equivalent). **Note.** Both Antigua and Ascension use the same AF Form and processes as PAFB.

3.7. Fire Reporting & Fire Evacuation Procedures:

3.7.1. Fast and accurate reporting of a fire is essential to minimize damage to property and injury to personnel.

3.7.2. Should a fire occur take the following actions:

3.7.2.1. Notify facility occupants, either verbally or by activation the fire alarm system.

3.7.2.2. Notify the fire department by dialing 911 and by activating the facility fire notification/evacuation/reporting system if so equipped.

3.7.2.3. When the Fire Alarm Communication Center Operator (FACC) or the centralized dispatch center operator answers your call please try to remain calm.

3.7.2.4. Try to speak clearly and accurately answer all question clearly and concisely.

3.7.2.5. Provide the telephone number for the phone from which you are calling.

3.7.2.6. Provide your building number, apartment number and street address.

3.7.2.7. Give the operator the location, type and size of the fire (i.e. what is burning, how long has it been burning, where is the fire located etc.).

3.7.2.8. Provide any other relevant information that might be useful for the emergency responders or which is requested by the FACC.

3.7.2.9. Close the doors and windows in the fire area if time permits and if you can do so without placing yourself in undo danger prior to exiting the building.

3.7.2.10. If you can accomplish it without placing yourself in danger attempt to extinguish the fire.

3.7.2.10.1. Only attempt to extinguish the fire after initiating the facility evacuation process and notifying the fire alarm communications center.

3.7.2.10.2. Do not attempt to extinguish a large or fast moving fire.

3.7.2.10.3. Never place yourself in danger trying to control a fire. Evacuate the facility/area upon alarm activation or verbal notification.

3.7.2.11. All personnel shall participate in the evacuation.

3.7.2.12. Appoint someone to meet and to direct responding emergency personnel to the site of the incident.

3.7.2.13. Evacuees shall assemble at a pre-designated location away from the fire area. This is to ensure total evacuation has been completed and to account for any missing personnel.

3.7.2.14. Report any missing personnel to the responding fire department emergency crews.

3.7.2.15. Total evacuation is mandatory during any alarm activation unless otherwise directed by fire department personnel.

3.7.2.16. Units having classified material or equipment must ensure prior arrangements are made to secure those items during an evacuation.

3.7.2.17. Use/possession of classified items/equipment does not exempt personnel from evacuating.

3.7.2.18. All fires shall be reported, even if the fire has burned itself out or has already been extinguished.

3.7.3. During a fire or emergency on PAFB, CCAFS, Ascension, or in the military family housing area call the fire department by dialing 911 on any government telephone. If you are calling from the military family housing area, on a payphone or personal cell phone the "911" call will be answered by the Brevard County Emergency Operations Center. Notify the dispatcher of the fire or emergency on PAFB, CCAFS and the operator will contact the appropriate FACC or dispatch center and pass along the information. **Note.** CCAFS uses a centralized dispatch center.

**NOTE:** At the Jonathan Dickenson and Malabar sites dialing 911 from a government phone rings into the centralized dispatch center for CCAFS.

**NOTE:** Fire reporting procedures at Ascension are the same as at PAFB and CCAFS.

**NOTE:** The fire and emergency reporting number from a phone on Antigua is 333. From an off-site phone, report emergencies over the regular Fire Department business phone lines.

3.7.4. Even if a facility is equipped with an automatic fire detection system that reports into the dispatch center always notify the fire department by dialing 911. Doing so functions as a failsafe and insures that the emergency responders (Fire/Security/EMS) are notified.

3.8. Fire Prevention Training: All 45 SW personnel require fire prevention training.

3.8.1. Commanders, functional managers, and supervisors at all levels are responsible for ensuring that personnel assigned to their unit are trained in fire prevention practices. Training shall be con-

ducted in accordance with AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Prevention, and Health AFOSH Program* and AFOSH Standard 91-56, *Fire Protection and Prevention*. Food services personnel shall receive fire prevention training initially as part of their orientation and quarterly thereafter from their supervisor.

3.8.2. At a minimum general fire prevention training shall include the following fire safe practices in the workplace:

3.8.2.1. Location and operation of installed fire suppression systems. If the facility/area is not equipped with a fire prevention/notification system then brief the employee on the manual or verbal procedures for fire evacuation and reporting.

3.8.2.2. Location and operation of portable fire extinguishers and the type of fire to use them on.

3.8.2.3. Location and operation of circuit breakers/electrical disconnects for their work area.

3.8.2.4. Procedures for reporting a fire by telephone.

3.8.2.5. Location of emergency exits.

3.8.2.6. Identifying and evacuating employees requiring special assistance.

3.8.3. Fire prevention training.

3.8.3.1. Personnel working in facilities/areas equipped with fire extinguishing systems that can be manually activated shall receive annual training on those systems from fire prevention personnel as required by AFOSH Standard 91-56 Fire Protection.

3.8.3.2. Fire Prevention training is required for newly assigned personnel upon arrival on station. The fire prevention office recommends that all incoming personnel receive an initial fire prevention briefing from their supervisor within 30-days of reporting for duty. Refresher training shall be accomplished as often as determined necessary by the supervisor. The fire prevention office recommends all personnel receive refresher training at least annually.

3.8.3.3. Special fire prevention training is required for personnel who work in areas of high hazard or which have installed fire extinguishing systems i.e. paint booths, commercial cooking facilities, fuel cell maintenance hangers, cryogenics storage facilities/areas, compressed gas storage facilities/areas, munitions storage or maintenance facilities/areas, fuels storage facilities/areas, refueling vehicle maintenance facilities, fuels labs, combustible metals processing/machining facilities, or any other location that presents an unusually high hazard and requires special fire safety instructions or guidance.

3.8.3.4. Training for Air Force Personnel shall be annotated on the AF Form 55, **Employee Safety and Health Record** (or equivalent). The fire prevention office requires that a copy of fire/safety related training reports/rosters be maintained in the facilities fire prevention folder

**Note.** Administrative areas are not required to maintain an AF Form 55 (or equivalent).

### 3.9. Fire Evacuation Exercises.

3.9.1. Fire evacuation exercises shall be coordinated with the fire department.

3.9.2. The use of fire detection/notification system (if equipped) is required during fire evacuation exercises.

3.9.3. Operation of the system shall only be under the supervision of fire protection or alarm systems maintenance personnel.

3.9.4. Fire evacuation exercises shall be conducted for the following occupancy types and at the following frequencies:

3.9.4.1. Assembly occupancies: As deemed necessary.

3.9.4.2. Business occupancies: As deemed necessary.

3.9.4.3. Day Care occupancies: Monthly.

3.9.4.4. Dormitories: As deemed necessary.

3.9.4.5. Educational occupancies: Monthly.

3.9.4.6. Health Care occupancies: Quarterly.

3.9.4.7. Mercantile occupancies: As deemed necessary.

3.9.4.8. Munitions storage area: Semi annually.

3.9.4.9. Fire evacuation exercises may either require the facility occupants to evacuate or stay in place as deemed appropriate by the fire department representative conducting the exercise.

3.9.4.10. Evacuation exercises that are rated as marginal or unsatisfactory shall be made up at a later date.

3.9.4.11. Evacuation exercises shall not be conducted during adverse weather.

3.9.4.12. Supervisors shall ensure this training is conducted at the specified frequency. This training shall be documented and maintained in the Facility Fire Prevention Folder.

3.9.4.13. Facility managers/supervisors may request an evacuation exercise be conducted for any facility/area by contacting the fire prevention office and scheduling an exercise.

### 3.10. Emergency Responses.

3.10.1. Emergency vehicles displaying emergency lights and or sirens shall be given right-of-way at all intersections, stop signs, and thoroughfares while responding to emergency incidents.

All other vehicles shall pull over, make room, and allow the responding emergency vehicles to pass.

3.10.2. Initially during emergency incidents the senior fire officer (SFO) (i.e., the ranking fire department member at the scene) will be the on scene commander (OSC).

3.10.3. No one shall obstruct, disrupt or otherwise interfere with the actions of on-scene fire protection personnel.

3.10.4. If an incident is of size or duration to warrant activation of the disaster control group (DCG) the SFO on scene shall be the OSC until command is formerly assumed by a senior Air Force official (i.e., the 45 SW/CC, 45 SPTG/CC, 45 CES/CC). **Note.** For CCAFS, Ascension and Antigua this responsibility shall fall to the person/s in equivalent positions as designated either by contract, operating instruction, standard operating guide, plan or other guidance.

3.10.5. The SFO may commandeer any available personnel, vehicles, or equipment deemed necessary to control incidents and or effect or assist rescue operations.

3.10.6. Motor vehicle operators shall not drive over fire hose unless directed to do so by fire protection personnel.

3.10.7. Non-emergency response personnel shall not enter an emergency incident scene unless granted permission to do so by the SFO or OSC and the scene is safe.

## Chapter 4

### GENERAL FIRE PREVENTION REQUIREMENTS

#### 4.1. Fundamental Requirements.

4.1.1. Every new and existing building or structure shall be constructed, arranged, equipped, maintained, and operated in accordance with this Code so as to provide a reasonable level of life safety, property protection, and public welfare from the actual and potential hazards created by fire, explosion, and other hazardous conditions.

4.1.2. Every new and existing building shall comply with this Instruction.

#### 4.2. Fire Protection Systems and Components.

4.2.1. The Fire Department will determine the size, type and the proper placement, inspection, testing and maintenance of first responder firefighting equipment, systems, and devices (i.e., portable fire extinguishers, pre-engineered installed fire protection systems).

4.2.2. Fire detection systems, suppression systems and or devices shall be maintained in a serviceable condition at all times in accordance with NFPA 1: 1-9.

4.2.3. If any fire detection or fire suppression system or component of a system is not required as determined by the AHJ it shall be removed.

4.2.4. At no time shall access to a fire protection system, device or component be obstructed.

4.2.5. A minimum of 18-inches of clearance shall be maintained around all components of a system.

4.2.6. Willful misuse or negligence involving fire protection systems or ignoring fire prevention policies shall not be tolerated. Such misuse or negligence includes but is not limited to malicious activation of a fire alarm, falsely reporting fire alarms, not reporting actual alarms, tampering with fire protection devices etc.

4.2.7. Inspection, testing, maintenance, repair, or alteration of any fire protection system, equipment, component, or device shall be accomplished at the required frequencies specified in UFC 3-600-02. If criteria isn't specified in UFC 3-600-02 refer to the applicable NFPA or other applicable national consensus standards.

4.2.8. The testing and maintenance of fire detection/notification systems shall be conducted by National Institute of Certification in Engineering Technologies (NICET) certified personnel. The on scene supervisor shall be certified to a minimum of NICET II. **Exception:** Personnel who are not NICET certified but who demonstrate expert knowledge of and have long experience with inspecting, maintaining and repairing fire detection/notification systems and who are acceptable to the AHJ.

4.2.9. The activation of any fire protection system or device shall be immediately reported to the fire department. Complete facility evacuation is mandatory for all personnel in a facility. **Exception:** During scheduled fire alarm system maintenance when the facility occupants have been properly notified.

4.2.10. Damage to or malfunction of any fire protection system or device shall be immediately reported to the fire department fire prevention office.

4.2.11. Fire Suppression System (sprinkler heads) shall not be painted or obstructed.

4.2.12. Fire Department Fire Prevention Personnel may require and observe a functional test of any and all fire detection/reporting/notification/suppression system prior to final systems certification.

4.2.13. Nothing shall be attached to any component of a fire suppression or fire detection system.

4.2.14. A 911 sticker (or other emergency reporting numbers) shall be posted on all telephones.

4.3. The Fire Department Fire Prevention Office requires that a copy of the blueprints/construction plans/shop drawings for all construction projects be submitted for review/approval prior to beginning the project. In order to minimize scheduling conflicts and to help ensure attendance the fire prevention office requires a ten working day notification prior to meetings, inspections, acceptance tests, training and site surveys. Short notice and special requests will only be accommodated as resources allow.

#### 4.4. Exits.

4.4.1. All parts of an exit and entire means of egress shall be kept free of obstructions.

4.4.2. Exits shall be unlocked whenever a building is considered open to the public or is occupied by more than ten persons.

4.4.3. Exit lights required by NFPA 101 shall be in working order at all times.

4.4.4. Exit lights required by NFPA 101 shall not be obstructed at any time.

4.4.5. One exit shall be designated as the "Main Exit" and as such shall be large enough to accommodate 50% of the maximum occupant load within the allotted timeframe.

4.4.6. At least two separate exits shall be provided on every story, and shall be accessible from every part of a story and mezzanine.

4.5. Emergency lighting required by NFPA 101 shall be in working order at all times.

4.5.1. Emergency lighting requires inspection by the using organization.

4.5.2. A functional test shall be conducted on every required emergency lighting system at 30-day intervals for not less than 30-seconds.

4.5.2.1. The results of the test shall be documented on an emergency lighting monthly inspection/testing checklist. The checklist shall be maintained in the facility fire prevention folder.

4.5.2.2. An annual test shall be conducted on every required battery-powered emergency lighting system for not less than 1 ½-hours. Equipment shall be fully operational for the duration of the test.

4.5.2.3. The owner (facility manager or equivalent) shall keep written records of visual inspections and tests on emergency lighting units in the facility fire prevention folder (or in an equivalent location). **Exception:** Self-testing/self-diagnostic battery-operated emergency lighting equipment that automatically performs a test for not less than 30-seconds and diagnostic routine not less than once every 30-days and indicates failures by a status indicator shall be exempt from the "manual" 30-day functional test.

4.5.2.4. The facility manager or the facility manager's designee shall insure that all emergency lighting units within their facilities are properly tested and that the test results are documented. This documentation shall be maintained in the facility fire prevention folder.

#### 4.6. Fire Extinguishers.

- 4.6.1. Fire extinguishers shall only be relocated by fire department personnel or an authorized contractor.
- 4.6.2. Supervisors, employees and fire department personnel shall ensure the following:
  - 4.6.2.1. Fire extinguishers are maintained in a serviceable condition at all times.
  - 4.6.2.2. All portable fire extinguishers are fully charged and in their designated locations.
  - 4.6.2.3. Fire Extinguishers are clearly visible and readily accessible.
  - 4.6.2.4. Fire extinguishers are visually inspected at least monthly by the facility manager or the facility manager's designated representative.
  - 4.6.2.5. Fire extinguishers are free of obstructions, dust, dirt and corrosion.
  - 4.6.2.6. No physical damage has occurred to the extinguishers.
  - 4.6.2.7. the extinguisher pressure gauge registers in the green and that the tamper seal and pin are in place.
  - 4.6.2.8. Insure each inspection is annotated on either the fire extinguisher monthly inspection checklist or a monthly inspection tag.
  - 4.6.2.9. The inspection checklist shall be maintained in the facility fire prevention folder. **Note.** If the monthly inspection tags are used, a separate tag shall be affixed to each fire extinguisher.
- 4.6.3. The Fire Department's portable fire extinguisher maintenance contract only covers fire extinguishers installed in real property facilities and the 150-LB, Halon 1211, wheeled, flightline fire extinguishers. The contract does not cover extinguishers mounted in or on vehicles, or in housing units.
- 4.6.4. Housing maintenance will replace damaged, outdated or discharged extinguishers assigned to housing units.
- 4.6.5. For vehicle or equipment mounted extinguishers, privately purchased extinguishers, extinguishers on boats or those purchased by an organization for the express purpose of deployment or field use, the inspection testing and maintenance frequencies are the same as specified in NFPA 10 for real property mounted extinguishers.
- 4.6.6. In order to receive the required service, inspection, testing and maintenance on extinguishers in these locations the owner should contact one of the local companies that are certified to perform these procedures. **Note.** CCAFS maintains its own in-house fire extinguisher maintenance program.

**NOTE:** The electronic version or a hard copy of a monthly fire extinguisher inspection checklist and the monthly inspection tags are available at the PAFB Fire Department, Fire Prevention Office PH# 494-2832/33/34/35 Building 810, 950 S. Patrick Drive, Patrick AFB FL, 32925. For an equivalent form/tag either contact the local fire prevention office or a certified fire extinguisher maintenance company.

**NOTE:** Defects or damage to any "real property" or "wheeled/flightline" portable fire extinguisher shall be reported to the fire department fire prevention office immediately.

- 4.7. Fire doors shall remain in the closed position at all times unless an approved releasing device is used.

4.7.1. Fusible links designed to melt and release the hold open mechanism for a fire door or a process dip tank shall be inspected by a certified maintenance specialist at least annually and shall be replaced as required.

4.7.2. Submit an AF Form 332 work request (or equivalent) to 45 CES help desk (or equivalent) for the required maintenance.

4.8. Nothing shall be placed within 15-feet of a fire hydrant.

4.8.1. Fire hydrants shall not be tampered with or used without prior coordination with the Fire Department.

4.8.2. Fences, barriers, storage, sheds, temporary buildings, vehicles and other objects shall not obstruct or impair fire department access to a fire hydrant, fire department sprinkler system, fire department connection (FDC) etc.

4.8.3. Vehicles are not allowed to park within 15-feet of any fire hydrant, fire department sprinkler system connection (FDC) etc.

4.8.4. The fire department shall be notified prior to any proposed water curtailment or usage, which affects hydrants.

4.8.5. "Out of Service" signs shall be displayed on all inactive hydrants and shall be removed as soon as the hydrant returns to service.

#### **4.9. Electrical General.**

4.9.1. Only authorized, qualified personnel shall install, service, or repair electrical equipment or wiring.

4.9.1.1. All required service, repair, or maintenance shall be completed in accordance with NFPA 70 the National Electric Code (NEC).

4.9.1.2. Defective or damaged electrical equipment, wiring cords, etc., shall be taken out of service and either repaired or replaced immediately.

4.9.1.3. Cords on appliances that are used for heating such as irons, hair dryers etc., shall be covered with flame proof insulating material and shall be Underwriters Laboratories (UL) listed.

4.9.2. Access to electrical panels, circuit breakers, and fuse boxes shall not be obstructed at any time.

4.9.2.1. A minimum of 36-inches of clearance shall be maintained around electrical circuit breaker boxes, transformers, equipment, at all times.

4.9.2.2. All electrical service panels shall be legibly marked to identify each circuit.

4.9.2.3. Each circuit breaker shall clearly indicate whether it is in the open (off) or closed (on) position.

4.9.2.4. Electrical service panels shall be provided with a properly fitted door. The door shall be kept in the closed position when not in use.

4.9.2.5. Electrical circuits shall not be overloaded beyond the rated capacity of the fuse or circuit breaker.

- 4.9.2.6. Only the proper size and type of fuse or breaker shall be used and the maximum allowable size and type shall be stamped or stenciled on all fuse or breaker boxes.
- 4.9.2.7. Circuit breakers shall not be taped or otherwise locked in the open or “on” position.
- 4.9.2.8. No electrical outlet, circuit breaker or extension cord, or other power source shall be subjected to more than the UL rated maximum load.
- 4.9.3. Improper use of or damage to extension cords may cause a fire and shall not be permitted.
- 4.9.3.1. Extension cords shall not be permitted for use as a substitute for permanent wiring.
- 4.9.3.2. Extension cords shall be of sufficient rating for their intended use and shall not be overloaded.
- 4.9.3.3. Extension cords shall not be any longer than necessary, connected one to another, run through doorways, windows, under carpeting, over nails, through floors, walls, or ceilings, or otherwise affixed to a structure.
- 4.9.3.4. Extension cords shall be of a continuous length and not be otherwise spliced or taped.
- 4.9.3.5. Only extension cords with built in circuit breakers shall be authorized.
- 4.9.3.6. Extension cords, electrical tools or appliances that are being used in an area that is either wet or prone to become wet shall be equipped with GFCI outlets.
- 4.9.3.7. Extension cords used with portable tools and equipment will be designed with three prong plugs. **Exceptions:** Double insulated tools and low amp devices, such as wall clocks, pencil sharpeners, tape recorders, etchers, and lamps may be used with a two-prong plug.
- 4.9.3.8. The minimum amperage rating of the extension cord will be at least equal to, but not less than the amperage rating of the item being powered by the cord.
- 4.9.3.9. Extension cords shall be secured so that there is no pull on the joints or screws of the plug or socket.
- 4.9.3.10. The third grounding prong is a safety feature and needs to be checked frequently by the user to ensure the prong’s security. The grounding plug shall not be cut off nor will an adapter be used to allow a three-prong plug to fit a two-prong receptacle, since this negates the third wire grounding protection.
- 4.9.3.11. Plugs/sockets whether molded or clamped, shall be firmly attached to the cord to prevent pulling against the wire connection.
- 4.9.3.12. Cords shall be frequently inspected by the users supervisor for signs of fraying, cracking, wear, deteriorated insulation or any other form of damage that could cause short circuiting and to ensure they are of the proper size/rating for the equipment they are serving.
- 4.9.3.13. Defective cords shall immediately be taken out of service.
- 4.9.3.14. Cords shall not be walked on nor shall equipment be rolled or driven over them. If cords must be placed in travel lanes they will be protected by molded housing or bridges.
- 4.9.3.15. Cords shall not be kinked, stretched or bent excessively as this sort of treatment will damage internal wire strands and could lead to short circuiting.
- 4.9.3.16. Cords shall be kept clean, dry and free from contaminants.

- 4.9.3.17. Whenever possible permanent electrical power cords for equipment shall be enclosed in rigid raceways, preferably overhead or otherwise out of travel lanes, common areas etc.
- 4.9.3.18. When disconnecting cords the plug shall be pulled rather than the cord to avoid damaging connections.
- 4.9.3.19. A grommet or some means of clamping approved by the NEC shall be installed where cords pass through equipment housings, to prevent abrasion of the cord insulation. The means used shall hold the cord firmly so there is no pull or strain put on the connecting point.
- 4.9.3.20. When not in use for extended periods of time and at the end of the duty day extension cords shall be disconnected.
- 4.9.3.21. Neither extension cords nor permanent wiring shall be used for hanging decorations, clothes or for any other purpose other than that intended by the manufacturer.
- 4.9.3.22. Plugs and sockets shall be used only as originally intended.
- 4.9.4. Any electrical equipment, device, or appliance shall be monitored when in use.
- 4.9.4.1. Frames of electrical motors shall be grounded.
- 4.9.4.2. All motor access covers shall be securely fastened.
- 4.9.4.3. Motor data plates shall be legible and shall not be painted over.
- 4.9.4.4. Exposed non-current carrying metal parts of fixed equipment that may become energized under abnormal conditions shall be grounded.
- 4.9.5. Electrical outlets, cover plates etc., shall be in good condition.
- 4.9.5.1. Missing, cracked or otherwise damaged electrical outlets, cover plates etc. shall immediately be taken out of service until repaired.
- 4.9.5.2. Electrical outlets, junction boxes, switches etc., shall have cover plates/doors securely installed.
- 4.9.5.3. Cover plates shall be free from cracks or other defects that could cause them to be ineffective.
- 4.9.5.4. All unused openings (knockouts) in outlets, junction boxes etc., shall be securely covered.
- 4.9.6. GFCI shall be required in the following locations:
- 4.9.6.1. Electrical outlets in areas that either are or could become wet (e.g. outside applications, inside restrooms, kitchens etc.).
- 4.9.6.2. In all new or newly renovated food service facilities.
- 4.9.6.3. All outlets in areas that are subject to washdown.
- 4.9.6.4. All outlets installed within 6-feet of sinks, basins or other water sources.
- 4.9.6.5. Recommended on power floor scrubbers, carpet cleaners, steam machines or other portable electrical equipment that either dispense water/steam or which will be used in wet areas that aren't equipped with GFCI.
- 4.9.6.6. When GFCI for large areas are required they will be in the circuit panel.

4.9.7. Undervoltage Protection: Undervoltage situations occur when a machine automatically resumes motion after a low voltage situation/power interruption and the operator is exposed to hazardous moving parts.

4.9.7.1. Machines, which are adequately safeguarded to protect the worker during undervoltage situations, shall have an ongoing undervoltage protective device installed.

4.9.8. Rigid conduits shall be securely attached to the box and flexible conduits shall be firmly attached by an approved clamping device where the conduit enters the box. This will help prevent abrasion to the conduit and will not allow a strain to be put on the connecting points.

4.9.9. All newly installed wiring in facilities or structures shall be installed inside rated conduit.

4.9.10. No wiring shall be installed through unauthorized openings, holes in walls, windows, doors or similar openings.

4.9.11. Supervisors shall ensure work areas are inspected for possible electrical hazards.

4.9.11.1. Wires shall be covered wherever they are joined. (i.e. outlets, junction boxes, switches, circuit breaker boxes).

4.9.11.2. Parts of electrical equipment which in ordinary operations produce sparks, arcing etc... shall not be operated or used in class I division I, II, III locations or in close proximity to combustible materials.

#### 4.10. Use and Storage of Flammable Liquids.

**NOTE:** This instruction does not apply to quantities of flammable liquids of less than 4-quarts.

**NOTE:** For guidance on the use and storage of aerosol products see NFPA 30B and AFOSH Standard 91-43.

4.10.1. The use, storage, transporting, and handling of flammable liquids shall be conducted in accordance with AFOSH 91-43, NFPA 30, 30B, 51, 54, 55, 58, 59A, 230 and this instruction.

4.10.2. Flammable & Combustible liquids shall be stored only in approved areas.

4.10.3. Request for interior placement of flammable storage cabinets/lockers shall be submitted to the fire department prior to installation.

4.10.4. Requests for exterior storage shall also be submitted to fire department, for review and approval.

4.10.4.1. A copy of the approved request shall be maintained in the facility fire prevention folder.

4.10.4.2. A diagram or map of the facility or area indicating the proposed storage location shall accompany the request for storage.

4.10.5. There shall not be more than three approved flammable liquid storage cabinets/lockers in any single process area without the approval of the fire department. No more than 6-cabinets/lockers shall be placed in any facility, with no more than three lockers in a group. A minimum distance of at least 100-feet shall separate groups of 3-cabinets/lockers.

**Exception 1:** The group size of three cabinets may be increased to 6-in a facility protected throughout by an approved, functioning, automatic fire suppression system.

**Exception 2:** The number of cabinets authorized in a facility is unlimited if the facility is protected throughout by an approved, functioning automatic fire suppression system and if the minimum distance rating of 100-feet can be maintained between the groups of cabinets and approval is granted by the fire department.

4.10.6. Storage cabinets/lockers shall be listed or shall be designed and constructed to meet the requirements of NFPA 30, Flammable and Combustible Liquids Code.

4.10.7. Any single cabinet/locker shall contain not more than 120-gallons (454-L) of flammable or combustible liquids of which not more than 60-gallons (227-L) shall be of Class 1A.

4.10.8. For interior storage of flammable liquids no single container shall have a storage capacity greater than 2 ½-US gallons.

4.10.8.1. Containers having a storage capacity of greater than 2 ½-US gallons shall be stored outside facilities in designated areas or in special facilities designated, rated and constructed especially for the storage of flammable liquids or gases.

4.10.9. All flammable liquid storage cabinets, lockers, containers shall be of approved design and material intended solely for the purpose of containing flammable/combustible liquids.

4.10.10. Each flammable/combustible liquid storage locker shall be labeled as to its contents.

4.10.11. Flammable liquids shall not be used as cleaning agents unless specifically designed for that purpose.

4.10.11.1. Every effort will be made to find an equally effective substitute that is not flammable.

#### 4.11. Liquid Hydrocarbon Powered Small Engine Equipment.

4.11.1. Storage shall only be authorized in approved locations as specified by the fire department.

4.11.1.1. Requests for storage shall be submitted to base fire department for review.

4.11.1.2. A copy of the approved request must be maintained in the facility fire prevention folder. The request for storage shall include a diagram or floorplan of the facility or area indicating the proposed storage location.

4.11.2. For areas/facilities considered hazardous as specified in NFPA 70: Article 500, Class 1, Division I, II, III only equipment rated for use in those areas shall be authorized.

#### 4.12. Paint Shops & Booths.

4.12.1. Spray painting shall be done only where there is adequate ventilation and in approved paint spray booths/facilities.

4.12.2. Spray painting operations shall comply with AFOSH 91-17: interior spray finishing and NFPA 33: spray application using flammable or combustible materials.

4.12.3. The walls and floors of spray booths/facilities may be covered with paper to protect them from paint deposits. This paper shall be removed and destroyed when contaminated. Soap like water soluble materials or coatings which can be stripped or other similar materials that can be easily washed down, may be used to protect the walls and floors of spray booths from paint accumulation as long as they do not pose or create an environmental pollution problem.

4.12.3.1. Protective paper wall coatings will not be used for dry or dusty painting substances that can be removed from the booths by adequate ventilation or dust collection systems. **Note:** Paint facilities with overhead sprinklers should have the sprinkler heads covered with a paper bag to prevent the heads from becoming clogged with paint oversprays.

4.12.4. Local application dry or wet chemical systems installed in paint booths shall be inspected and certified by a certified inspector on a semi-annual basis.

4.12.5. Installed wet or dry chemical fire extinguishing systems in paint booths shall be inspected and serviced on a semi-annual basis.

4.12.6. Monthly the facility manager or supervisor shall perform a monthly "Owners Inspection" on wet and dry chemical fire extinguishing systems. The results of the inspection indicating the condition and serviceability of the system shall be documented on an inspection tag and the tag shall be affixed to the system.

#### 4.13. Process dip tanks.

4.13.1. All open process dip tanks which use either combustible or flammable liquids and are under 150-gallon (570-L) capacity or 10-square feet (1-square meter) in liquid surface area shall be equipped with automatic, self-closing covers or special extinguishing systems.

4.13.2. Each tank lid shall be equipped with a fusible link in the hold open device that is designed to melt at a predetermined temperature and allow the lid to automatically close in case of fire.

4.13.3. When tanks are not in use, the lids shall be kept closed.

4.13.4. Automatic closing process tank covers shall be actuated by approved automatic devices (fusible links) and also shall be arranged for manual operation.

4.13.5. Covers shall be substantially constructed of noncombustible materials and shall overlap the sides of the tank by at least 1-in. (25-mm) and have a recess or flange that extends downward around the tank when it is closed.

#### 4.14. Smoking.

4.14.1. AFI 40-102 *Tobacco Use in the Air Force* governs the usage of tobacco in Air Force facilities.

4.14.2. Tobacco use is not permitted in Air Force facilities, except as provided in AFI 40-102.

4.14.3. Smoking is prohibited within 20-feet (6-meters) of any portion of the flightline. The term "flightline" refers to any paved portion of the airfield capable of supporting an aircraft. This includes but is not limited to any portion of the runway, taxiways, parking ramps, hangers, helicopter-landing pads, hammerheads etc.

4.14.4. Smoking materials including matches and lighters shall not be used within 20-feet (6-meters) of areas used for fueling, servicing fuel systems for internal combustion engines, or receiving or dispensing of Class I, II or III flammable or combustible liquids or gasses.

4.14.5. Smoking shall be prohibited within 50-feet of any area where munitions or explosives are stored, built up, uploaded, maintained or present in any amount for any length of time.

4.14.6. Conspicuous and legible signs prohibiting smoking shall be posted within sight of the customer being served.

4.14.7. The motors of all equipment being fueled shall be shut off prior to and during the fueling operation, except for emergency generators, pumps etc., where continuing operation is essential to the operation being performed.

4.14.8. Removal or destruction of any required "No Smoking" sign shall be prohibited. Smoking or depositing any lighted or smoldering substance in a place where required "No Smoking" signs are posted shall be prohibited.

4.14.9. No person shall smoke in unauthorized areas.

4.14.10. An adequate number of metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted. NFPA 101 18.7.4, 101:19.7.4. The disposal of anything other than smoking materials, in these containers is prohibited. Each metal container shall have stenciled on it "SMOKING MATERIALS ONLY".

4.14.11. At the end of every shift or duty day, all collected smoking material shall be completely extinguished, saturated with water, and removed for disposal in dumpsters.

4.14.12. For additional information on smoking safety see NFPA 1: 3-3.

#### 4.15. Motor Vehicles.

4.15.1. Vehicles and/or trailers shall not be parked in any manner that would limit or obstruct access by emergency response vehicles to all sides of a building.

4.15.1.1. Parking shall be prohibited in fire lanes, within 15-feet of fire hydrants or FDC.

4.15.2. No vehicle or equipment other than those owned and operated by emergency services and maintenance personnel during the course of emergency responses and the performance of their duties shall be permitted to park within or obstruct access to a fire lane.

4.15.3. Motor vehicles having internal combustion engines shall not be parked or stored inside any building unless the facility is designed for that purpose or a permit is granted by the fire department.

4.15.3.1. If parking a vehicle or storing gasoline powered equipment inside a facility is required by the mission, then a letter of approval shall be submitted to your individual respective fire department.

4.15.3.2. The request shall contain all pertinent information such as the type and amount of the proposed items and equipment to be stored.

4.15.3.3. The request shall be accompanied with a diagram of the facility depicting the proposed parking location for the vehicles or the storage location for the equipment.

4.15.4. For areas/facilities considered hazardous as specified in NFPA 70: Article 500, Class 1, Division I, II, III only equipment rated for use in those areas shall be authorized.

#### 4.16. Permits and Approvals.

4.16.1. The fire department shall be authorized to establish and issue permits, certificates, notices, approvals and or orders pertaining to fire control and fire hazards pursuant to NFPA 1:1-16.1.

4.16.1.1. The fire department shall be permitted to revoke a permit or approval issued if any violation of this instruction is found or in a case where there have been false statements or misrepresentations submitted in the application or plans for which the permit approval was based.

4.16.1.2. Any attempt to defraud or otherwise deliberately or knowingly design, install, service, maintain, operate, sell, represent for sale, falsify records, reports or applications, or other related activity in violation of the requirements prescribed by this instruction shall be a violation of this instruction and shall be cause for immediate suspension or revocation of any related licenses, certificates, or permits issued by the fire department

#### 4.17. Open Flames.

4.17.1. Open flames and the burning of trash or other material shall not be allowed without the prior approval of fire department fire prevention office.

4.17.2. The burning of candles and incense shall only be allowed in military family housing units, places of worship during special religious functions, and certain functions in the Officers Club, NCO Club and Dining Facility, provided proper precautions are taken.

4.17.3. Candles shall not be used in general seating areas of chapels, in dormitories or any other base facilities.

4.17.4. In dining and drinking establishments hurricane type candles may be used provided they are secured to a sturdy noncombustible base and the flame is completely surrounded by a glass shield or globe.

#### 4.18. Fireworks.

4.18.1. The use of any fireworks shall be prohibited. **Exception:** Approved and or licensed pyrotechnic personnel contracted by the U.S. government or designated base representative who will be conducting displays or training exercise's. Coordination will be made with the fire department to ensure adequate safety procedures are complied with.

#### 4.19. Welding, Cutting, and Brazing.

4.19.1. The following shall apply to all personnel who are either presently engaged in or shall in the future engage in operations involving, welding, cutting, brazing, soldering, carbon arc gouging or any other operation involving the heating or melting of metal, open flames, operation of tar kettles or other heat or flame producing devices on any property controlled by the 45 SW. Those personnel shall read and understand the requirements of OSHA 1910.152, 1910.253, NFPA 51B and AFOSH Standard 91-5.

4.19.2. Welding, cutting, brazing and other hot work shall not be accomplished until a valid AF Form 592 (or equivalent) USAF welding, cutting, brazing and other hot work permit has been issued by the fire department.

4.19.3. All applicable requirements in NFPA 51B, AFOSH Standard 91-5, NFPA 10, OSHA 29 CFR 1910.252, 1910.253 shall be strictly enforced.

4.19.4. Shops that routinely perform welding, cutting, brazing, soldering etc. may be task certified to issue welding permits. At PAFB the FACC shall be the sole source for issuing the control numbers for burn permits and maintaining a record of all permits issued. At CCAFS, Ascension Auxiliary Field and Antigua Air Station see the local fire department for guidance.

4.19.4.1. Certification training is provided by appointment and can be scheduled by contacting the local fire department.

4.19.4.2. Certification is valid for a period of one year from date of issue.

4.19.5. Permits are not required for authorized welding shops.

4.19.5.1. The shop foremen shall establish operating instructions for welding, cutting, brazing, soldering and other hot work.

4.19.5.2. These instructions shall contain at least the minimum requirements set forth in OSHA 1910.252, 253, AFOSH Standard 91-5, NFPA 51B.

4.19.6. To limit exposure to the products of combustion generated by welding operations certain precautions shall be taken. These include providing adequate ventilation, mechanical and or natural, whatever is required, keeping the work area clean and neat, and protecting or removing all combustibles within 35-feet of an operation.

4.19.7. A fire watch shall be required for all hot work including welding, cutting, and brazing, soldering etc. The on scene supervisor shall insure that adequate fire extinguishing equipment is on hand. The minimum shall be at least two each 10-lb. Class ABC rated dry chemical extinguishers.

4.19.7.1. All persons involved in the operation shall be trained and thoroughly familiar with the use of portable extinguishers. They shall be familiar with the procedures of sounding and or reporting an alarm in the event of fire or emergency. They shall monitor all exposed areas and attempt to extinguish fires within their capacity.

4.19.8. A fire watch shall be maintained for at least 30-minutes after completion of operations to detect and extinguish possible smoldering fires.

4.20. Cooking.

4.20.1. Cooking shall be prohibited in all buildings except those specific areas designated as kitchen facilities.

4.20.2. Cooking shall be supervised at all times.

4.20.3. Unattended cooking shall be strictly prohibited. **Note:** Unattended Cooking is the most frequent cause of fires in Air Force Military Family Housing and one of the top causes of fires in commercial food preparation establishments.

4.20.4. Ensure that cooking operations are constantly supervised.

4.20.5. When cooking with hot oil only use a pot or pan that has a tight fitting lid designed for the particular pot or pan that is being used.

4.20.6. In the event that a pot or pan catches fire immediately do the following:

4.20.6.1. Turn off either the burner or the circuit breaker to the stove or both.

4.20.6.2. Using an oven mitt or pad take the lid that fits the pot or pan that's burning and place that lid on the pot or pan.

4.20.6.3. After the fire is out carefully move the pan off of the burner. If either of these methods fails use the portable fire extinguisher provided with the residence, follow the instructions on the side of the extinguisher and discharge it onto the fire. Remember to always notify the Fire Department by calling 911 at the first available opportunity no matter how small the fire.

- 4.20.7. Coffee makers, soup warmers, hot air popcorn makers, microwave ovens, and toasters shall be permitted for use in offices, shops, day rooms, unaccompanied personnel quarters, and like occupancies.
- 4.20.8. These appliances/devices shall be supervised when in use.
- 4.20.9. Microwave ovens are the only authorized cooking devices allowed in dormitories. Be aware that the smoke detectors installed in the sleeping quarters of the dormitories, TLQ, VAQ, VOQ are very sensitive to not only smoke, but humidity, steam, temperature changes and direct physical abuse.
- 4.20.10. All small or portable cooking appliances shall be placed on a noncombustible surface such as formica or metal.
- 4.20.11. All appliances shall bear the UL label or other recognized testing agency seals of approval and shall be maintained in a clean, safe and well maintained condition.
- 4.20.12. Outdoor cooking devices including charcoal grills, gas operated grills, and smokers shall not be placed any closer than 10-feet from a structure when in use. These devices shall not be used inside any structure, under carports, eaves, overhangs, or pavilions, unless the structure is designed for that purpose. All cooking devices shall be constantly attended when in use.
- 4.20.13. All used charcoal shall be thoroughly soaked with water prior to disposal and adequate time shall be allowed for the cooking device to cool before storing it away.
- 4.20.14. Deep fat fryers shall be equipped with a metal cover/lid that provides a tight seal capable of extinguishing a fire.
- 4.20.14.1. Deep fat fryers shall be equipped with a separate high-limit control in addition to the adjustable operating control (thermostat) to shut off fuel or energy when the fat temperature reaches 475°F (246°C) at 1-in. (25.4-mm) below the surface.
- 4.20.15. Cooking appliances shall not be moved from their designated locations without the prior approval of the fire prevention office. Moving commercial cooking equipment may require alteration to the fire extinguishing system and shall be accomplished prior to moving any equipment protected by a system.
- 4.20.16. Cooking equipment that produces grease laden vapors, such as, but not limited to, deep fat fryers, ranges, griddles, broilers, woks, tilting skillets, and braising pans shall be protected by fire-extinguishing equipment.
- 4.20.17. Cooking equipment used in processes producing smoke or grease-laden vapors shall be equipped with an exhaust system that complies with all the equipment and performance requirements of NFPA 96. All such equipment and performance shall be maintained per NFPA 96 during all periods of operation of the cooking equipment. All equipment shall be maintained in good working condition.
- 4.20.17.1. The air velocity through any duct shall be not less than 1500-cubic feet (457.2-m) per minute. Hoods, grease removal devices, fans, ducts, and other appurtenances shall be cleaned to bare metal at frequent intervals prior to surfaces becoming heavily contaminated with grease or oily sludge. After the exhaust system is cleaned to bare metal, it shall not be coated with powder or other substance. The entire exhaust system shall be inspected by a properly trained, qualified, and certified company or person/s acceptable to the AHJ.

4.20.18. All hoods, ducts, fans and filters shall be cleaned at frequent intervals to prevent them from becoming contaminated with grease or oily sludge. The minimum frequency will be daily for stoves and hoods, weekly for filters and semi-annually for ducts and fans or more often if necessary to ensure all equipment is fire safe and sanitary. **Note:** All commercial cooking operations on PAFB are presently under a cleaning contract and are thoroughly cleaned at least semi-annually or more frequently if required. Ascension, Antigua & CCAFS have similar programs in place.

#### 4.21. Heat Producing Appliances and Equipment.

4.21.1. All heat producing appliances and equipment shall be used in accordance with the manufacturer's specifications and shall be maintained in good working order.

4.21.2. A minimum of 36-inches of clearance shall be provided for all heat producing appliances and equipment. The area shall be properly maintained and kept clear of combustibles.

4.21.3. Space heaters shall be allowed providing that they are equipped with an automatic tilt switch.

4.21.4. Space heaters shall not be left unattended for long periods of time (e.g. overnight).

4.21.5. Only electrically operated heaters shall be allowed.

4.21.6. The use of such appliances in hazardous locations shall be prohibited.

#### 4.22. Decorations.

4.22.1. All decorative materials shall be labeled or otherwise certified by the manufacturer as being flame resistant.

4.22.2. No furnishings, decorations, or other objects shall obstruct exits, access thereto, egress therefrom, or visibility thereof.

#### 4.23. Warning signs.

4.23.1. Every sign required shall be so located and of such size, distinctive color, and design that it is readily visible and shall provide contrast with decorations, interior finish, or other signs.

4.23.2. No decorations, furnishings, or equipment that impairs or obstructs the visibility of a sign shall be permitted.

4.23.3. No brightly illuminated sign, display, or object, (for other than exit purposes) shall be installed either in or near the line of vision of the required exit sign that could detract attention from the exit sign shall be permitted.

#### 4.24. Interior finish.

4.24.1. Furnishings, contents, decorations, and treated finishes in buildings and structures shall meet the requirements of NFPA 101: NFPA 701.

4.24.2. Draperies, curtains, and other similar loosely hanging furnishings and decorations shall be flame resistant as demonstrated by testing in accordance with NFPA 701 Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

4.24.3. Furnishings or decorations of an explosive or highly flammable character shall not be used.

4.24.4. Electric string lights and wiring shall be UL rated for their intended use and shall be in good condition. If they are to be used outside they shall be rated for that purpose and shall be equipped with GFCI.

#### **4.25. Combustible Vegetation.**

4.25.1. Combustible vegetation and natural cut Christmas trees shall not be permitted in assembly, educational, day-care, health care, residential board and care, detention and correctional, mercantile, hotel or dormitory occupancies, except for the following:

4.25.1.1. Day-care homes.

4.25.1.2. Living trees in a balled condition with their roots protected by an earth ball shall be permitted provided they are maintained in a fresh condition and are not allowed to become dry.

4.25.1.3. Trees located in areas protected by an approved automatic sprinkler system.

4.25.2. Artificial combustible vegetation and Christmas trees shall be labeled or otherwise identified or certified by the manufacturer as being flame retardant or flame resistive.

4.25.3. No combustible vegetation or Christmas tree shall be allowed to obstruct corridors, exits or any portion of a means of egress.

4.25.4. Only listed electrical lights and wiring shall be used on combustible vegetation, Christmas trees, and similar decorations.

4.25.5. Electrical lights shall be prohibited on metal artificial trees.

4.25.6. Open flames such as from candles, lanterns, kerosene heaters, and gas-fired heaters shall not be located on or near combustible vegetation, Christmas trees or other similar combustible materials.

4.25.7. Combustible vegetation and natural cut Christmas trees shall not be located near heating vents or other fixed or portable heating devices that could cause it to dry out prematurely or to be ignited.

4.25.8. In occupancies where natural trees are permitted, the bottom end of the trunk shall have a straight fresh cut of at least ½-inch (13-mm) above the end prior to placing the tree in a stand to allow the tree to absorb water. The tree shall be placed in a suitable stand with adequate water. The water level shall be maintained above the fresh cut and checked at least once daily. The tree shall be removed from the building immediately upon evidence of dryness. Natural Christmas trees are allowed provided that they are placed in a container of water or wet sand and watered daily. When natural trees no longer absorb water or become dry they must be immediately disposed of. Do not rely on self-applied aerosol sprays or chemical treatments to protect trees from fire NFPA 1.

4.25.9. A minimum of 30-feet (or more as determined by the fire prevention office) of clear area shall be maintained between facilities and combustible brush, or densely wooded areas. The fire prevention office requires that a minimum width of 1 ½-times the height of the tallest fuel will be the standard width of a firebreak/fireline NFPA 299: 2-1 "Defensible Space" (or more as determined by the fire prevention office).

#### **4.26. Storage.**

4.26.1. Incompatible materials shall not be stored together (e.g. flammable solids with water, flammable liquids with combustible solids, oily rags with clean rags, flammable liquids with tires etc.).

- 4.26.2. Storage shall not be allowed to obstruct or block any fire door, fire alarm device, fire extinguisher, or interfere with any component of a means of egress to include an exit.
- 4.26.3. Combustibles shall not be stored under stairs, in attics, or under floors in facilities.
- 4.26.4. Mechanical, HVAC, electrical rooms shall not be used for storage, as office space or for any purpose other than intended by the original design. **Note:** If the room in question is no longer required to be used for the originally designed purpose, is acceptable for the new intended occupancy I.A.W. NFPA 101, ADA/UFAS requirements, is acceptable to space allocations (or their equivalent) and is acceptable to the fire prevention office it may be possible to use the room for another purpose/occupancy. Contact the local fire prevention office for further guidance.
- 4.26.5. A minimum of 36-inches of clearance shall exist between combustible or stocked storage and heat sources (e.g. portable space heaters, furnaces, etc.).
- 4.26.6. A minimum clearance of 18-inches shall exist between rack storage and the ceiling and fire suppression system sprinkler heads.
- 4.26.7. For storage and stockpiles over 15-feet in height, the clearance from the ceiling and fire suppression system sprinkler heads shall be at least 36-inches.
- 4.26.8. A minimum clearance of 44-inches shall exist between rows of stored materials and 24-inches between stock and substandard walls.
- 4.26.9. Pressurized gas cylinders shall be properly stored at all times.
- 4.26.10. When not in use a cylinders protective cap shall be installed and the cylinder shall be secured with either a cable, chain or other device capable of preventing the cylinder from toppling over and becoming damaged or rupturing.
- 4.26.11. Incompatible cylinders shall not be stored together (e.g. flammable gasses with poison gases, corrosives with flammables, oxidizers etc.).
- 4.26.12. Incompatible gasses shall be separated by either 20-feet of space or a 5-foot high wall having a minimum of a 30-minute fire resistance rating.
- 4.26.13. When two or more compressed gases are stored in a gas cabinet, the gases shall be compatible.
- 4.26.14. The floors of storage areas used to store compressed gasses shall be of noncombustible or limited-combustible construction.
- 4.26.15. Shelves used for the storage of cylinders shall be of noncombustible construction and designed to support the weight of the cylinders stored.
- 4.26.16. Outdoor storage areas shall have a minimum of twenty five percent of the perimeter open to the atmosphere. This open space shall be permitted to incorporate chain link fence, lattice construction, open block, or similar materials for the full height and width of the opening.
- 4.26.16.1. Outdoor storage areas shall be kept clear of dry vegetation and combustible materials for a minimum distance of 15-feet (4.6-m).
- 4.26.16.2. Cylinders stored outside shall not be placed on the ground (earth) or on surfaces where water can accumulate.
- 4.26.16.3. Storage areas shall be provided with physical protection from vehicle damage.

4.26.16.4. Storage areas shall be permitted to be covered with canopies of noncombustible construction.

#### **4.27. Environmental Control.**

4.27.1. Poor housekeeping shall not be allowed. Poor housekeeping contributes to the fire load of a facility and can either directly cause a fire or contribute to an existing condition thereby causing or intensifying a fire.

4.27.1.1. Supervisors shall ensure that all buildings, areas, and grounds under their jurisdiction are clean, free from accumulations of trash, junk, broken items, and maintained in a fire-safe condition.

4.27.2. All rags shall be stored in metal containers with tight fitting lids. Each container shall be marked either "clean" or "dirty".

4.27.2.1. Oil saturated rags shall be stored in a separate, marked, metal container with self-closing lid.

4.27.3. All steel wool shall be stored in metal containers with self-closing lids and marked appropriately.

4.27.4. All waste containers shall be emptied at the end of the duty day or when required by custodial contract.

4.27.4.1. Any accumulation of trash, waste, broken furniture or equipment items is prohibited.

4.27.4.2. Trashcans that become full before custodial contractors get around to emptying them shall be emptied into outside trash collection containers.

4.27.4.3. Placing anything that could start a fire in any waste container is strictly prohibited (e.g., Cigarette butts, used charcoal etc.).

#### **4.28. Tar Kettles.**

4.28.1. The provisions of this section shall apply to any type of equipment including, but not limited to, chassis-mounted equipment used for preheating or heating tar, asphalt, pitch, or similar substances for roofs, floors, pipes, or similar objects.

4.28.2. Prior to operating a tar kettle the operator shall obtain the approval of the fire prevention office in the form of an AF Form 592 Hot Work Permit or equivalent.

4.28.3. Operating kettles shall not be located inside of or on the roof of any building.

4.28.4. The kettle shall be operated in a controlled area.

4.28.4.1. The operating area of the kettle shall be identified by the use of traffic cones, tape or rope barriers, or other suitable means as approved by the fire prevention office.

4.28.5. An operating kettle shall be attended by a minimum of one employee who is knowledgeable of the operations and hazards. The employee shall be within 25-feet (7.6-m) of the kettle and shall have the kettle within sight.

4.28.6. Two approved, 20-B:C fire extinguishers shall be provided and maintained within 25-feet (7.6 m) of the operating kettle.

- 4.28.6.1. Fire extinguishers shall be mounted in an accessible and visible or identified location.
- 4.28.7. Roofing kettles shall not block exits, means of egress, gates, roadways, or entrances. Kettles shall not be closer than 10-feet (3-m) from exits or means of egress.
- 4.28.8. LP-Gas containers for roofing kettles shall not be used in any building.
- 4.28.9. Roofing kettles and all integral working parts shall be in good working condition and shall be maintained free of excessive residue.
- 4.28.10. All roofing kettles shall have doors permanently attached. Doors shall be installed in a workmanlike manner and shall be provided with handles to provide opening without the operator having to stand in front of same.
- 4.28.11. All kettles shall have an approved, working visible temperature gauge that indicates the temperature of the material being heated.
- 4.28.12. All kettle doors shall be tightly closed and latched when in transit.
- 4.28.13. This section shall apply to all roofing kettles or tar pots in excess of 1-gallon (3.8-L) capacity.
- 4.28.14. No roofing kettle shall have a capacity in excess of 5-barrels.
- 4.28.15. Lids that can be gravity operated shall be provided on all roofing kettles.
- 4.28.15.1. The tops and covers of all kettles shall be constructed of steel sheet having a thickness of not less than 0.075 inches (No. 14 Manufacturers' Standard Gauge) that is close fitting and attached to the kettle with hinges that allow gravity to close the lid.
- 4.28.16. Fuel containers, burners, and related appurtenances of roofing kettles in which liquefied petroleum gas is used for heating shall comply with all the requirements of NFPA 58 the Liquefied Petroleum Gas Code.
- 4.28.17. Fuel containers that operate under air pressure shall not exceed 20-gallons (76-L) in capacity and shall be subject to the approval of the fire prevention office.
- 4.28.18. All fuel containers shall be maintained in accordance with applicable NFPA codes and standards or shall be at least 10-feet (3 m) from the burner flame or at least 2-feet (0.6-m) therefrom when properly insulated from heat or flame.

#### **4.29. Tents and Bleachers.**

- 4.29.1. Any tents or bleachers purchased, rented, leased, installed, erected or used within the 45 SW will, as a minimum meet, the requirements in the most recent edition of NFPA 102, be coordinated/approved with 45 CES/CEF and 45 SW/SEG (or equivalent entities at CCAFS, Ascension and Antigua) and inspected prior to use by the appropriate agency or it's equivalent.

## Chapter 5

### SPECIFIC FIRE PREVENTION REQUIREMENTS BY OCCUPANCY TYPE

#### 5.1. Assembly Occupancies.

- 5.1.1. Assembly occupancy requirements are referenced, in part, from NFPA 101: 8, 9.
- 5.1.2. Definition: (1) An occupancy used for a gathering of fifty or more persons for deliberation, worship, entertainment, eating, drinking, amusement, awaiting transportation, or similar uses; or (2) used as a special amusement building, regardless of occupant load.
- 5.1.3. Prior to opening and closing the facility to patronage either the facility manager or the facility managers designee shall conduct an inspection to ensure the facility is in a fire safe condition.
- 5.1.4. The facility manager shall maintain a record of all opening and closing inspections on file in the six-part fire prevention folder for a period of not less than two years.
  - 5.1.4.1. The facility manager shall be able to produce the record documenting the inspections as requested by authorized persons (e.g. Fire Prevention, SVS, SFS, CES, SEG etc.).
- 5.1.5. Rooms or areas constituting a place of assembly shall state the maximum occupant load capacity as determined by fire prevention personnel. Occupant load information will be maintained in the facility fire prevention folder. Facility Managers will ensure that the maximum occupant load is not exceeded.
- 5.1.6. The fire prevention office shall be notified prior to all major social events and or special functions where unusual arrangements, temporary seating, or temporary decorations will be involved. A representative of the fire department shall survey the area prior to the event.
- 5.1.7. Minimum egress width in new assembly occupancies shall be not less than 28-inches.
  - 5.1.7.1. Minimum egress width in existing assembly occupancies shall be not less than 18-inches for rooms serving 6-or less people and 28-inches for rooms serving more than 6-persons.
  - 5.1.7.2. The width of any exit access corridor serving 50-or more persons shall be not less than 44-inches (112-cm).
  - 5.1.7.3. Exits shall be located remotely from each other and shall be arranged to minimize the possibility that they might be blocked by any emergency.
  - 5.1.7.4. Means of egress shall not be permitted through kitchens, storerooms, restrooms, closets, or hazardous areas as described in NFPA 101: 12.2.5.2.
- 5.1.8. Interior Finish.
  - 5.1.8.1. Interior finish shall be in accordance with Section 10.2, NFPA 101: 12.3.3.1. Interior wall and ceiling finish materials complying with 10.2.3 shall be Class A or Class B in all corridors and lobbies and shall be Class A in enclosed stairways NFPA 101: 12.3.3.2.
  - 5.1.8.2. Interior wall and ceiling finish materials complying with 10.2.3 shall be Class A or Class B in general assembly areas having occupant loads of more than 300-hundred persons and shall be Class A, Class B, or Class C in assembly areas having occupant loads of 300-persons or fewer.

#### 5.2. Business Occupancies.

- 5.2.1. Business occupancy requirements are referenced, in part, from NFPA 101: 26, 27.
- 5.2.2. Prior to opening and closing the facility to patronage either the facility manager or the facility manager's designee shall conduct an inspection to ensure the facility is in a fire safe condition.
- 5.2.3. The total capacity of the means of egress shall be sufficient for the occupant load of the facility being evacuated.
- 5.2.4. The minimum width of any corridor or passageway shall be 44-inches.
- 5.2.5. No dead-end corridor shall exceed 50-feet.
- 5.2.6. Travel distance to exits shall not exceed 200-feet. Travel distance shall not exceed 300-feet in buildings protected by an approved, automatic sprinkler system.
- 5.2.7. The minimum egress access width throughout the entire means of egress (for existing construction) shall not be less than 18-inches for office areas containing 6-or less people and not less than 28-inches for areas containing more than 6-people (e.g. the minimum clear width between all furniture, equipment, doorways, walls etc. For new construction the minimum width shall not be less than 32-inches).

### **5.3. Child Development Centers.**

- 5.3.1. Day-care occupancy requirements are referenced, in part from NFPA 101: 30, 31, AFI 34-701.
- 5.3.2. Prior to opening and closing the facility for business, the facility manager or the facility manager's designee shall conduct an inspection to ensure the facility is in a fire safe condition.
- 5.3.3. No dead-end corridor shall exceed 20-feet.
- 5.3.4. Decorations in child development centers shall not cover more than 20%-of the existing wall space (e.g. posters, toys, stuffed animals etc.).
- 5.3.5. Draperies, curtains, and other similar furnishings and decorations in day-care occupancies shall be in accordance with the provisions of NFPA 101: 10.3.1.

### **5.4. Dormitories.**

- 5.4.1. The provisions of this section establish policies, requirements, and responsibilities that apply to all dormitories under the control of the 45 Space Wing.
- 5.4.2. The 45 CES/CC, Fire Chief, Housing Flight Chief, SFS/CC, SVS/CC, SEG, Dormitory Managers and the individual supervisors of dormitory residents are responsible for enforcing the requirements of this instruction as it applies to dormitories.
- 5.4.3. Dormitory Managers are responsible for developing, implementing, and maintaining the fire prevention program once established. This includes insuring assigned personnel understand their duties as to established fire prevention/fire safety practices, fire reporting and evacuation procedures, storage and use of flammable liquids, cooking policy, policy and possible consequences of tampering with any portion of a fire detection/suppression system or portable fire extinguisher.
- 5.4.4. Newly assigned occupants shall be briefed on fire prevention, fire reporting, evacuation procedures, and responsibilities. That briefing shall be properly documented in both the facility fire prevention folder and each individual's AF Form 55.

5.4.5. Occupants shall read and understand the fire reaction and evacuation plans for their assigned dormitory.

5.4.6. Cooking appliance's having an open or exposed heating element shall be prohibited from use in individual dormitory rooms. Only small conventional microwave ovens shall be permitted.

5.4.7. Proper housekeeping shall be required of all occupants. This shall include common areas as well as each individual's personal room.

5.4.8. Open flames shall be prohibited from use in dormitories to include cooking devices, grills, candles, and incense burners, etc.

5.4.9. Smoking in dormitory rooms shall be allowed. Smoking is prohibited however, while lying, reclining, or sitting in bed. Only large, noncombustible ashtrays are permitted. All smoking materials shall be doused with water prior to disposal.

5.4.10. Fire detection devices are placed in facilities to notify occupants of a possible life-threatening emergency. These devices shall not be covered, dismantled, removed, relocated, or tampered with in any way.

## **5.5. Educational Occupancies.**

5.5.1. Educational occupancy requirements are referenced, in part, from NFPA 101: 10, 11.

5.5.2. Prior to opening and closing the facility for business, the facility manager or designated assistant shall conduct an inspection to ensure the facility is in a fire safe condition.

5.5.3. The facility manager or the facility manager's designee shall ensure that the number of personnel never exceeds the maximum occupant load for that room, area.

## **5.6. Health Care Occupancies.**

5.6.1. Health Care occupancy requirements are referenced, in part, from NFPA 101:12, 13, MIL-HDBK-1191.

5.6.2. Prior to opening and closing the facility for business, the facility manager or the facility manager's designee shall conduct an inspection to ensure the facility is in a fire safe condition.

## **5.7. Industrial Occupancies.**

5.7.1. Industrial occupancy requirements are referenced, in part, from NFPA 101: 28.

5.7.2. Prior to opening and closing the facility for business, the facility manager or the facility manager's designee shall conduct an inspection to ensure the facility is in a fire safe condition.

5.7.3. Proper housekeeping shall be conducted daily to prevent the build-up of potentially combustible/flammable/explosive solids, liquids, dusts, gasses and fibers 45 SWI 32-2001:4.26.

## **5.8. Mercantile Occupancies.**

5.8.1. Mercantile occupancy requirements are referenced, in part, from NFPA 101: 24, 25.

5.8.2. Prior to opening and closing the facility to patronage, the facility manager or designee shall conduct an inspection to ensure the facility is in a fire safe condition.

- 5.8.3. No dead-end corridor shall exceed 50-feet.
- 5.8.4. No common path of travel shall exceed 75-feet. If the facility is protected by an automatic fire suppression system, a common path of travel for the first 100-feet may be permitted.
- 5.8.5. Aisles leading to each exit shall be required. The aggregate width of such aisles shall be equal to at least the required width of the exit.
- 5.8.6. Travel distance to exits shall not exceed 150-feet. If the facility is protected by an automatic fire suppression system a travel distance of 200-feet may be permitted.
- 5.8.7. In Class A stores, or those with a gross area of more than 30,000-square feet, at least one aisle with a minimum width of 5-feet shall be required to lead directly to an exit.
- 5.8.8. In no case shall any required aisle be less than 28-inches in clear width for existing construction or 36-inches for new construction.

## **5.9. Military Family Housing.**

- 5.9.1. Fire prevention in military family housing is the direct responsibility of the military or civilian sponsor. The sponsor must ensure that family members are knowledgeable in fire prevention, fire reporting, and fire evacuation procedures. The sponsor is fully responsible for the actions of family members and guests in matters of fire prevention and may be held liable for any and all damages that occur due to negligence, willful misconduct, or intentional destruction of property.
- 5.9.2. The occupant (sponsor) shall insure that the portable fire extinguisher installed in their housing unit is maintained in a clean and serviceable condition.
- 5.9.3. Smoke detectors shall be in a fully operational condition.
- 5.9.4. Smoke detectors shall be tested monthly.
- 5.9.5. Smoke detectors shall be cleaned twice yearly.
- 5.9.6. The batteries in all battery-powered smoke detectors shall be changed at least twice each year or more often if necessary.
- 5.9.7. Proper housekeeping shall be required of all personnel residing in military family housing.
- 5.9.8. Personnel shall not allow trash, broken furniture, recyclable materials etc. to accumulate in any portion of the residence. Trash, junk, broken items, yard waste etc. shall be promptly disposed of.
- 5.9.9. Cooking in Military Family Housing.
  - 5.9.9.1. Unattended cooking shall be strictly prohibited. Unattended Cooking is the #1, most frequent cause of fires in Air Force housing residences.
  - 5.9.9.2. Insure that cooking operations are constantly supervised.
  - 5.9.9.3. If cooking with hot oil please insure to only use a pot or pan that has a tight fitting lid designed for the particular pot or pan that is being used.
  - 5.9.9.4. In the event that a pot or pan catches fire immediately turn off either the burner or the circuit breaker to the stove or both. Using an oven mitt or pad take the lid that fits the pot or pan that's burning and place that lid on the pot or pan. After the fire is out carefully move the pan off of the burner. If either of these methods fails use the portable fire extinguisher provided with the resi-

dence, follow the instructions on the side of the extinguisher and discharge it onto the fire. Remember to always call the Fire Department via 911 at the first available opportunity no matter how small the fire.

5.9.10. Utility rooms, the lint traps, clothes dryers, the areas behind them and the areas they vent to shall be kept clean and free of lint build-up.

5.9.11. Ensure every possible precaution is taken when smoking. Properly dispose of smoking materials. Control all ignition sources.

5.9.12. Flammable liquids shall not be stored inside military family housing units, except in the garage areas of housing units, except as provided below.

5.9.12.1. Flammable liquids are allowed in the garage areas of housing units.

5.9.12.2. Up to 60-gallons of class 1A flammable liquids are allowed per cabinet. The combined total of flammable and combustible liquids shall not exceed 120-gallons.

5.9.12.3. Housing residents are authorized to store up to 200-pounds of liquified propane gas in their garage areas.

5.9.12.4. Flammable liquids shall be stored only in Dept. of Transportation rated containers designed for that purpose. Containers shall be marked IAW Department of Transportation requirements. I.E. Red = Gasoline, Yellow = Diesel Fuel, Blue = Kerosene.

5.9.13. Welding, cutting, and brazing shall be strictly prohibited in military family housing.

5.9.14. Small arms ammunition, ammunition reloading equipment and supplies shall be allowed as specified in AFOSH Standard 91-201, NFPA 495: 11. Ammunition may only be stored in accordance with 45 SW Housing Office policy.

## **5.10. Storage Occupancies.**

5.10.1. Storage occupancy requirements are referenced, in part, from NFPA 101: 29.

5.10.2. Prior to opening and closing the facility for business, the facility manager or the facility manager's designee shall conduct an inspection to ensure the facility is in a fire safe condition.

5.10.3. Incompatible materials shall not be stored together. Refer to NFPA 30, NFPA 230, and AFOSH Standard 91-43 for specific guidance.

5.10.4. Pressurized gas cylinders shall be properly capped, secured, and stored at all times.

5.10.5. Proper separation distances and or barriers between incompatible types of gasses shall be maintained at all times.

5.10.6. Combustible and or Flammable liquids storage areas and or facilities shall be properly vented.

5.10.7. The use of boiler, mechanical air handling, air conditioning, or generator rooms for any type of storage is prohibited and shall be strictly adhered to.

5.10.8. Combustible materials shall not be stored under stairs, in attics, or under floors in buildings.

5.10.9. Combustible materials or stocked storage shall not be stored any closer than 18-inches to electrical lights, heat sources, or any fire protection or detection device. No storage is allowed within 36-inches of any fire alarm panel or suppression system riser.

5.10.10. There shall be a minimum clearance of at least 18-inches between the top of stored materials and ceilings. For materials stacked over 15-feet in height the clearance shall be at least 36-inches.

5.10.11. A minimum clearance of 24-inches shall be maintained between stock and substandard walls.

5.10.12. A minimum aisle space of 48-inches shall be maintained between rows of stored materials.

## Chapter 6

### CONTRACTORS AND CONCESSIONAIRES

#### 6.1. Responsibilities.

6.1.1. Contractors and concessionaires shall be responsible for the fire safe condition of their personnel, work areas and for compliance with federal law, fire code, and other national consensus standards (e.g. OSHA, DODI, NFPA, AFI, AFOSH, 45 SWI, UBC, UL, ANSI, ADA, UFAS etc.).

6.1.2. Contractors shall be briefed on their responsibilities prior to beginning any project. This shall be accomplished during the pre-construction briefing.

6.1.3. Contractors and concessionaires shall ensure the following requirements are met.

6.1.3.1. At the close of each duty day a fire inspection shall be conducted, by the contractor or concessionaire, to ensure the area/facility is in a fire safe condition.

6.1.3.2. Exits, manual pull stations, and fire extinguishers are not blocked or obstructed.

6.1.3.3. All electrical equipment used is in good operating condition.

6.1.3.4. Multi-plug outlets are not to be used.

6.1.3.5. Extension cords are of one continuous length without splice (compare paragraph 3.9, chained cords).

6.1.3.6. All flammable liquids are stored in accordance with AFOSH Standard 127-43.

6.1.3.7. All subordinates are properly briefed on fire reporting, facility evacuation procedures, the use of portable fire extinguishers, and fire alarm systems within their facility or area.

6.1.3.8. All seasonal decorations are flame retardant and approved by the fire prevention office prior to installation.

6.1.3.9. The requirements of this instruction are strictly enforced.

6.1.3.10. Sound fire prevention habits are enforced.

6.1.3.11. Emergency lighting units shall be inspected monthly by visual inspection and by interrupting the power source for 15-minutes. Annually each unit shall be subjected to a 1 ½-hour duration test. The test shall be documented and the results shall be maintained in the facility fire prevention folder.

6.1.3.12. Personnel shall be properly briefed on fire prevention, fire reporting, facility evacuation procedures, use of portable fire extinguishers, and fire alarm systems within their respective areas or facilities.

6.1.4. If the contractors or concessionaire is the primary occupant of a facility, they shall be responsible for appointing both a primary and an alternate facility manager.

6.1.4.1. The facility manager or supervisor shall be responsible for complying with all the applicable duties and requirements associated with facility management.

6.1.4.2. The facility manager or supervisor shall develop and implement a fire safety folder and program for all facilities under their control.

6.1.4.3. The facility manager or supervisor shall develop and maintain a six-part fire prevention folder.

6.1.4.4. The facility manager or supervisor shall insure that each assigned portable fire extinguisher in their facility is inspected monthly. The inspection shall be documented on either an inspection tag affixed to each extinguisher or shall be accomplished by documenting the inspection on a monthly inspection checklist that is maintained in the six part fire prevention folder.

## Chapter 7

### CONTRACT MANAGEMENT/CONSTRUCTION

**7.1. Construction Project Review.** The Fire Department Fire Prevention Office takes an active and aggressive interest in all aspects of construction/renovation projects, this includes AF Forms 332, **Civil Engineer Work Request**, DD Form 1391, **Military Construction Project Data**, project book development, design reviews, materials approval, actual construction and pre and final acceptance tests.

**7.2. Pre-construction Meetings.** The Fire Chief or designated representative will attend pre-construction and pre-performance meetings with the engineering contract manager to coordinate fire prevention requirements. This includes appropriated and non-appropriated funded projects, MILCON projects, saber projects, Army Corps of Engineering projects etc.

**7.3. Fire Hazards, Unsafe Practices, and/or Conditions During Construction.** When fire hazards, unsafe practices, or unsafe conditions are found during construction, the Civil Engineer contract monitor/project manager shall take immediate corrective actions.

**7.4. Contract Fire Prevention Construction Guidance.** Each contract shall contain a specific section on fire prevention that references the pertinent, applicable guidance for that particular project.

**7.5. Project Coordination.** All construction projects, renovation projects, demolition projects, or alterations of any kind to 45 Space Wing real property facilities shall be coordinated with the PAFB/CCAFS Fire Prevention Offices, Civil Engineering, Contract Engineering (or equivalent). This includes construction projects at PAFB, CCAFS, Antigua, Ascension, Jonathan Dickenson, Malabar and all other sites controlled by the 45 SW.

**7.6. Conflicting Guidance.** If conflicting guidance for the same subject or issue exists, consult MIL-HDBK-1008C for order or precedence.

**7.7. Waiver or Variance Requests.** A request for a waiver or variance to MIL-HDBK-1008C requirements may be submitted as specified in the first chapter of MIL-HDBK-1008C. **Note:** Cost savings is not in and of itself a valid reason for requesting a waiver or variance.

**7.8. Current Standards.** The most current edition of an applicable standard available at the time of a project's design shall apply.

**7.9. Use Group, Height, and Area Limitations.** For determining things like use group, occupancy, construction type, height and area limitations consult the uniform building code (UBC).

**7.10. Egress and Life Safety Requirements.** For determining egress and life safety requirements consult NFPA 101 the Life Safety Code (LSC).

**7.11. Minimum Fire Protection and Life Safety Design Features.** Fire protection and life safety design features, devices, systems, equipment and ADA/UFAS requirements shall be designed into every project from conception through final acceptance.

**7.12. Minimum Fire Protection Requirements.** Unless an automatic fire suppression is specifically required by ETL, MIL-HDBK or NFPA, the minimum requirement for any new building on property owned or controlled by the 45 SW is a complete automatic fire detection system and manual pull stations. Smoke detectors in the HVAC ductwork and manual pull stations at the exits do not meet these minimum requirements.

7.12.1. If a system is required, coverage shall include 100%-of the facility. All spaces occupied or unoccupied, concealed or open shall be equally protected. The exemptions specified in MIL-HDBK-1008C and or applicable National Fire Code shall be honored. Some of the most notable and common exceptions for coverage for fire detection systems are small, concealed spaces less than 50-square feet in area, concealed spaces above false ceilings less than 6-inches in height, the areas above false ceilings used as return air ducts, all spaces above false ceilings, in attics, near the roof, etc. Where smoke could accumulate in the event of a fire, areas shall be subdivided into less than 3,000-square foot. The material used to sub-divide the smoke compartments shall have a minimum of a ½-hour, fire resistance rating.

**7.13. Code Compliance for Renovations.** When renovating a facility unless specifically required by code, only the area being renovated must be brought up to the code requirements specified for new construction.

**7.14. Major Renovations.** In accordance with AFCESA, NFPA, MIL-HDBK-1008C, the term “major renovation” shall cause a facility to be considered new construction. The term “major renovation” has no set cost or square footage value.

DONALD P. PETTIT, Brigadier General, USAF  
Commander

## Attachment 1

### FIRE REACTION AND EVACUATION PLANS

The following guidance is provided to assist personnel with formulating fire reaction and fire evacuation plans.

**Table A1.1. Emergency Action Plan.**

<b>Emergency Action Plan Scope and Application</b>
<p>1.1. This paragraph applies to all emergency action plans required by this particular instruction. The emergency action plan shall be in writing (except as provided in the last sentence of paragraph 1.5.3) and shall cover those designated actions employers and employees must take to ensure employee safety from fire and other emergencies.</p>
<p>1.2. Elements: The following elements, at a minimum, shall be included in the plan:</p> <p>1.2.1. Emergency escape procedures and emergency escape route assignments.</p> <p>1.2.2. Procedures to be followed by employees who remain to operate critical plant operations before they evacuate.</p> <p>1.2.3. Procedures to account for all employees after emergency evacuation has been completed.</p> <p>1.2.4. Rescue and medical duties for those employees who are to perform them.</p> <p>1.2.5. The preferred means of reporting fires and other emergencies.</p> <p>1.2.5.1. Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.</p>
<p>1.3. Alarm system:</p> <p>1.3.1. The employer shall establish an employee alarm system.</p> <p>1.3.2. If the employee alarm system is used for alerting fire brigade members, or for other purposes, a distinctive signal for each purpose shall be used.</p>
<p>1.4. Evacuation: The employer shall establish in the emergency action plan the types of evacuation to be used in emergency circumstances.</p>
<p>1.5. Training:</p> <p>1.5.1. Before implementing the emergency action plan, the employer shall designate and train a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.</p> <p>1.5.2. The employer shall review the plan with each employee covered by the plan at the following times.</p> <p>1.5.2.1. Initially when the plan is developed.</p> <p>1.5.2.2. Whenever the employee's responsibilities or designated actions under the plan change.</p> <p>1.5.2.3. Whenever the plan is changed.</p>

1.5.3. The employer shall review with each employee upon initial assignment those parts of the plan, which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept at the workplace and made available for employee review. For those employers with 10 or fewer employees the plan may be communicated orally to employees and the employer need not maintain a written plan.

1.6. Fire prevention plan:

1.6.1. Scope and application: This paragraph applies to all fire prevention plans required by this particular instruction. The fire prevention plan shall be in writing, except as provided in the last sentence of paragraph 1.9.2 of this section.

1.7. Elements: The following elements, at a minimum, shall be included in the fire prevention plan:

1.7.1. A list of the major workplace fire hazards and their proper handling and storage procedures, potential ignition sources (such as welding, smoking and others) and their control procedures, and the type of fire protection equipment or systems which can control a fire involving them.

1.7.2. Names or regular job titles of those personnel responsible for maintenance of equipment and systems installed to prevent or control ignitions or fires.

1.7.2.1. Names or regular job titles of those personnel responsible for control of fuel source hazards.

1.8. Housekeeping: The employer 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.

1.9. Training:

1.9.1. The employer shall apprise employees of the fire hazards of the materials and processes to which they are exposed.

1.9.2. The employer shall review with each employee upon initial assignment those parts of the fire prevention plan which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept in the workplace and made available for employee review. For those employers with 10 or fewer employees, the plan may be communicated orally to employees and the employer need not maintain a written plan.

1.10. Maintenance: The employer shall regularly and properly maintain, according to established procedures, equipment and systems installed on heat producing equipment to prevent accidental ignition of combustible materials. The maintenance procedures shall be included in the written fire prevention plan.





Attachment 4

FIRE EVACUATION EXERCISE

Figure A4.1. Fire Evacuation Exercise.

FIRE EVACUATION EXERCISE

A Fire Evacuation Exercise on DD MM YY \_\_\_\_\_ at \_\_\_\_\_ hrs.

Exercise was conducted at, facility/area \_\_\_\_\_

Number of personnel evacuated, Adults \_\_\_\_\_

Children \_\_\_\_\_

Approximate time expired evacuating the facility/area \_\_\_\_\_

A fire prevention specialist conducted/observed the exercise Yes/No.

Proper fire evacuation/notification procedures were followed Yes/No.

I.E. Activation of the fire notification system, contacting the fire department via 911, insuring the facility is completely evacuated, conducting an accurate headcount of the occupants.

The exercise was conducted in an orderly and timely fashion Yes/No.

Facility Managers Signature \_\_\_\_\_

Fire Prevention Inspectors Signature \_\_\_\_\_

Remarks

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