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Civil Engineering

**FIRE PROTECTION AND
FIRE PREVENTION PROGRAM**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction outlines and procedures for an effective fire protection and prevention program to prevent loss of life, property damage and related intangible losses. It implements AFRD 32-20, *Fire Protection*. It establishes organizational and individual responsibilities and effects all areas, facilities and activities at the 911th Airlift Wing. It applies to all personnel, tenants, visitors, contractors and concessions.

SUMMARY OF REVISIONS

This is the initial publication of 911 AWI 32-201 revising 911 AWI 32-2001, 1 Feb 95. It updates and streamlines previous guidance.

1. Responsibilities:

- 1.1. The installation commander is responsible for fire protection at the 911 Airlift Wing, including the Civil Engineering Detachment at Morgantown, West Virginia.
- 1.2. The Base civil Engineer (CE) is the Base Fire Marshall and supervises the fire protection function through the Fire Protection Inspector (CEF).
- 1.3. The Fire Protection Inspector is responsible to the Fire Marshall for establishing and carrying out fire protection and prevention programs. The Fire Inspector is authorized to stop and operation or process, which presents a serious fire, explosion or life safety hazard. This authority extends over all tenants and contractors on base.
- 1.4. Unit commanders, division chiefs, facility managers, supervisors and their subordinates at all levels are responsible for and must ensure that sound fire prevention procedures are established and practiced in each activity under their jurisdiction.

2. Installation Fire Protection and Prevention Program:

2.1. Installation commanders will execute comprehensive installation fire protection and fire prevention programs.

2.2. Fire Inspector develops, manages and implements fire protection and fire prevention programs. The Fire Protection Inspector will ensure that:

2.2.1. All facilities are inspected at least annually to identify and eliminate potential fire hazards and that fire prevention measures are enforced.

2.2.2. Fire prevention and fire protection program elements (attachments) are made available to all unit commanders, division chiefs, facility managers, supervisors, tenants and concessionaires.

2.3. Unit commanders, division chiefs, building managers and supervisors develop operating instructions (OIs) to follow when fire is discovered. The OIs should cover the fire protection and prevention elements outlined in the attachments of this instruction as well as operations unique to the functional area.

2.3.1. Operating instructions must be coordinated through the base fire protection office and reviewed annually or upon change in functional operations of processes.

3. Exceptions to this instruction:

3.1. No exceptions will be made to this instruction without approval of the installation commander.

F. BAXTER LANE, Col, USAFR
Commander

Attachment 1

FIRE PREVENTION TRAINING

A1. Functional managers and facility managers are responsible for periodically inspecting their organizations to ensure compliance with this instruction to eliminate fire hazards and correct deficiencies. This includes:

A1.1. Ensuring that all work areas are left in a fire safe condition at the end of each tour of duty.

A1.2. Periodically inspecting electrical equipment and appliances to detect worn or defective cords.

A1.3. Ensuring that all nonessential electric office machines and equipment control switches are shut off when not in use.

A1.4. Ensuring that attics, crawl spaces, stairwells, storage rooms and warehouses are free of trash, unnecessary combustible materials.

A1.5. Flammable and combustible products are stored in approved containers and cabinets.

A1.6. Ensuring that all waste materials are kept in non-combustible containers and are emptied daily.

A1.7. Ensuring that hazardous waste materials are disposed of in accordance with current hazardous waste handling and disposal procedures.

A1.8. Ensuring that flammable items are not disposed of with wood, paper, metal waste or any type of oxidizer.

A1.9. Ensuring mechanical rooms are not utilized for storage purposes.

A1.10. Ensuring all non-government appliances are inspected by a Civil engineering electrician before being installed. Complete form, which requires Bldg Manager, CC and BCE approval.

A1.11. Ensuring that authorized smoking areas are kept free of trash and combustible material and smoking materials are extinguished and disposed of in approved receptacles.

A1.12. Primary or delegating alternate to accompany the Fire Inspector during fire prevention visits and to ensure that all areas are accessible to the Fire Inspector.

A1.13. Make a monthly visual inspection of all fire extinguishers, cabinets, emergency lighting, exit signs, pull stations and extinguishing systems for proper operation or signs of tampering and reporting any deficiency to the Fire Inspector.

A1.14. Ensuring that any operation or process which requires any type of open flame be coordinated and approved by the Fire Inspector. This includes outdoors recreational cooking.

A1.15. Taking appropriate action against anyone who carelessly or willfully violates fire prevention policies or by negligence causes fire loss to government property.

Attachment 2

LIFE SAFETY

A2. Unit commanders, Divisions Chiefs, Facility Managers, and Supervisors are responsible for ensuring that all life safety devices and features within areas of their jurisdiction are operational.

A2.1. Functional Managers and Facility Managers will:

A2.1.1. Ensure that all hallways, stairwells or any other path of egress are not obstructed in any manner.

A2.1.2. Ensure that all exits are clear of trash, debris, and obstructions including ice and snow for a minimum distance of ten feet from the exit.

A2.1.3. Ensure all exit signs in their activities which are electrically illuminated be operational at all times.

A2.1.4. Ensure all doors, which are identified, as exits are kept unlocked while occupants are in the facility.

A2.1.5. Ensure all doors, which are identified as exits, not be chained or otherwise blocked or restricted in any manner.

A2.1.6. Ensure all doors, which are identified as fire doors, be kept in the closed position at all times.

A2.1.7. Ensure all fire protection features and devices are operational, unobstructed and undamaged. These include: fire and smoke detectors, manual pull stations, portable fire extinguisher, extinguishing systems, emergency lighting, panic hardware and fire alarm control panels.

Attachment 3**FIRE PREVENTION TRAINING**

A3. Unit Commanders, divisions Chiefs and Supervisors are responsible for periodically conducting fire safety and prevention briefings to their subordinates at all levels to ensure that their personnel are observing fire regulations.

A3.1. Newly assigned persons will be briefed within 30 days following their reporting date. The Fire Inspector can be requested to conduct briefings if desired.

A3.1.1. Briefing topics shall include: Building evacuation procedures and plans, fire reporting procedures and emergency telephone numbers, exit locations, fire extinguisher locations, fire alarm pull station locations, designated assembly locations and housekeeping practices.

A3.2. Fire extinguisher familiarization training will be conducted by the Fire Inspector as requested.

A3.2.1. Requests for hands-on fire extinguisher training for flightline personnel should be coordinated through the Fire Protection Office 30 days in advance.

A3.3. Building evacuation drills are conducted at the discretion of the Fire Inspector or as requested by unit authority.

Attachment 4

FIRE PREVENTION IN HANGARS, SHOPS AND FLIGHTLINE

A4. Hangar chiefs, shop foremen and supervisors are responsible for fire safety compliance within their workplace.

A4.1. Aircraft will not be fueled while inside hangar or within 50 feet of hangar doors.

A4.2. Aircraft will not be serviced with oxygen while inside hangar or within 50 feet of hangar door.

A4.2.1. At least one (1) flightline approved fire extinguisher must be easily accessible during refueling or oxygen servicing operations.

A4.3. Aircraft engines will not be operated inside hangars under any circumstances.

A4.4. Batteries should be disconnected and aircraft will be grounded at all times while in the hangar.

A4.5. No open-flame, spark-producing device, exposed filament heater or any equipment capable of igniting vapors or gases is permitted within 50 feet of any maintenance section of the hangar except the weld shop.

A4.5.1. Blow torches, soldering irons and other equipment in which open flames must be used will be restricted to isolated places where there is air circulation and where no explosive vapors are present. AF Form 592, Welding, cutting and Brazing Permit, must be obtained from the Fire Inspector prior to beginning any-flame operation outside specifically designated weld shop areas.

A4.6. Only approved Class 1, Division 1, portable battery operated inspection light will be used in aircraft hangars.

A4.6.1. Electrical equipment within the hangar and shops will be of the type approved specifically for the hazardous location as defined in the appropriate section of the National Fire codes.

A4.7. Supplies, equipment or materials will not be stored in such a manner as to block exits, interfere with fire protection equipment or block accessibility or visibility of fire extinguishers.

A4.8. Flammable or combustible materials and liquids required to perform maintenance shall be stored in approved containers and labeled as to the contents. The labeled containers shall be housed within approved cabinets.

A4.8.1. Quantities of flammable and combustible liquids stored in cabinets shall be in accordance with National Fire codes, AFOSH Standards and Codes of Federal Regulation.

A4.8.2. Flammable liquid storage cabinets shall be kept closed at all times when not being accessed.

A4.9. Inspections of hangars and shops will be made daily to ensure a fireside condition is maintained prior to closing shops and hangars.

A4.10. Appropriate type and class fire extinguishes will be located along ramps, far enough from aircraft to prevent damage to aircraft or extinguisher by prop wash or jet blast.

A4.10.1. Flightline extinguishers are accountable and maintained by the Fire Protection Flight of Civil Engineering. Damaged, use or inoperable extinguishers shall be removed from service and immediately reported to CE Work Control, X8582 or the Fire Inspector, X8731 for required maintenance or repair.

A4.10.2. Non-user owned flightline extinguishers, which are to be deployed with aircraft, must be receipted for on AF Form 1297, **Temporary Issue Receipt** from the Fire Protection Office.

Attachment 5

MORTOR VEHICLE MAINTENANCE FIRE PREVENTION

A5. Supervisors, vehicle maintenance chiefs and shop foreman are responsible for fire safety compliance within their workplace.

A5.1. Special activities necessary to perform vehicle maintenance operations, such as painting, welding or other hazardous operations will be performed in places or areas designated for the purpose.

A5.2. Flame producing devices will be prohibited throughout the garages except in specifically designated locations, such as the Welding Section.

A5.3. Precautions in battery shops will be strictly in compliance with provisions of AFOSH Standard 127-66 and other applicable directives.

A5.3.1. In battery shops, any spark producing equipment, such as electric lights, motors, etc., shall be explosion-proof unless otherwise superseded by prevailing codes.

A5.3.2. No flammable, combustible or oxidizing products of any sort will be used or stored in battery shops or rooms.

A5.4. Oily rags and waste will not be left on floors, work benches desks, etc.

A5.5. Oil, gasoline or any other product spilled will be cleaned up immediately.

A5.6. The exhaust system will be in operation while maintenance is being performed on refueling units in vehicle maintenance refueling bay.

A5.7. Mobile equipment, having gasoline tanks mounted over the engine, will not be refueled within 50 feet of a building.

A5.7.1. Should gasoline tanks overflow during refueling operations, the engine will not be started until the fuel has been cleaned up or evaporated.

A5.7.2. During refueling operations and starting of engines after refueling, a fire extinguisher will be held in readiness in the event of fire.

A5.7.3. Trucks or trailers containing small, auxiliary gasoline powered units will be equipped with suitable fire extinguishers.

A5.7.4. Gasoline engines, used as power generators inside trailers or closed spaces, will be refueled with extreme care to prevent spillage and ignition from electrical sources or hot exhaust.

A5.8. All electrical devices and fixtures will be kept in good working condition at all times.

A5.8.1. All defective equipment will be repaired only by authorized technicians or tradesman.

A5.8.2. Metal parts of all electrical machines will be grounded to low resistance ground.

A5.9. Flammable and combustible liquids will be stored in approved containers and housed in approved cabinets in quantities specified by the National Fire Code, Code of Federal Regulations, Air Force Directives or locally established policy.

A5.10. Hazardous waste products will be stored in approved accumulation points, away from ignition sources, until disposed of or recycled according to current regulations, policies or directives.

Attachment 6**FIRE PREVENTION IN PLACES OF PUBLIC ASSEMBLY, RECREATIONAL AND BILLETING FACILITIES**

A6. Managers of places of public assembly and recreational facilities are responsible for fire safety compliance within areas of their jurisdiction. This responsibility extends over contracted services and concessionaires.

A6.1. Managers of public assembly and recreational facilities must establish and maintain a certifications system to ensure employees have been trained and understand their fire prevention responsibilities within their work environment.

A6.1.1. This certification system includes periodic training of employees and immediate indoctrination of newly hired employees.

A6.2. Manager or alternate, will conduct fire and security inspections of facilities at closing time in accordance with current SF 701, Activity Security Checklist.

A6.2.1. The closing inspection will be reported to Security Police and entered in police blotter.

A6.2.2. If no such report is received within one (1) hour of established closing time, Security Police will accomplish a visual inspection of the facility and report the failure of the manager to accomplish closing procedures to the Fire Inspector the following workday.

A6.3. Managers of facilities where commercial or restaurant type cooking is performed will establish and enforce procedures to ensure all grease filters and exposed surfaces of kitchen range hoods are thoroughly cleaned at least daily.

A6.3.1. The Fire Protection Office will arrange for the thorough cleaning of hoods and ducts on a semi-annual basis in all facilities where cooking is performed. The expense is reimbursable to Civil Engineering for NAF facilities.

A6.3.2. Building managers must be able to show documentation that hoods have been cleaned semi-annually.

A6.3.3. Cooking is not permitted under range hood without grease filters installed and exhaust fan turned on.

A6.3.4. If an exhaust fan motor is shut down for repair or replacement, kitchen equipment served by that system will not be used until the fan is restored to service. Managers of facilities where deep-fat fryers are utilized will ensure that fryers are equipped with dual thermostats, limiting temperature to 400 degrees F on primary and 475 degrees F on secondary.

A6.4.1. Dual thermostats must be tested by qualified technicians semi-annually at the users expense and certification must be forwarded to the Fire Inspector within ten (10) days of the testing.

A6.4.2. Metal covers must be provided and pre-positioned near each deep fryer for immediate use in case of a grease fire.

A6.5. Open flames (candles) designed to enhance atmosphere in places of public assembly and not permitted in Air Force facilities unless they are housed in stable, non-combustible bases and the flame is protected from coming in contact with combustible materials.

A6.6. Billeting manager will ensure fire protection features in dormitories and individual rooms are fully operational prior to assigning rooms for occupancy.

A6.6.1. Emergency evacuation plans should be available for each occupant's familiarization.

A6.6.2. Emergency telephone numbers should be visibly accessible.

A6.7. Smoking in room is prohibited.

A6.7.1. Smoking materials will be placed in approved receptacle only.

A6.8. Hot plates, heaters and electric cookers are prohibited in dormitories.

Attachment 7

MISCELLANEOUS FIRE PREVENTION POLICIES AND PROCEDURES

A7. All Unit Commanders, Division Chiefs, Facility Managers, Supervisors and subordinates at all levels are responsible for complying with the fire prevention policies and procedures covered in this attachment.

A7.1. Holiday and Public Gathering Procedures:

A7.1.1. Natural Christmas trees will not be displayed in any facilities unless risk is accepted, in writing, by the Installation Commander and forwarded to the Fire Protection office.

A7.1.2. The butt of the tree will be cut in a diagonal slant or in a "V" and immersed in a container of water during the entire period of display.

A7.1.3. Trees will be kept well away from stoves, radiators or other sources of ignition.

A7.1.4. Both natural and artificial Christmas trees must be flame retardant.

A7.1.5. Trees will be well secured against falling and will be placed so they will not block or hamper means of egress.

A7.2. Electrical lighting devices and extension cords will be inspected for serviceability before use and will be of the type tested and listed by Underwriters laboratories.

A7.2.1. Overloaded electrical circuits must be avoided. Civil engineering will determine adequacy of circuits if requested.

A7.2.2. Electrical devices of any type and prohibited on metallic type Christmas trees.

A7.3. In any facility where major social events are planned, the facility manager will consult with the Fire Protection Office prior to displaying unusual arrangements and decorations.

A7.3.1. All decorations will be of non-flammable or flame retardant type.

A7.4. Overcrowding of facilities, during public gatherings, is prohibited. Occupancy capacity standards will be maintained by the building manager and will not be exceeded.