

US Army Garrison Redstone Arsenal  
Redstone Arsenal, Alabama 35898-5000

GARRISON Regulation  
No. 420-1

Redstone Arsenal Facilities Engineering  
INSTALLATION FIRE AND EMERGENCY SERVICES PROGRAM

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## **Section I INTRODUCTION**

### **1-1. PURPOSE**

To establish policies, assign responsibilities, and describe procedures for developing an aggressive fire prevention program for Redstone Arsenal (RSA).

### **1-2. SCOPE**

This Regulation is applicable to all primary organizational elements of the US ARMY Garrison Redstone Arsenal and all tenant and contractor activities located on Redstone Arsenal.

### **1-3. POLICY**

The Redstone Arsenal Fire & Emergency Services (F&ES) will strive provide RSA with the highest quality fire prevention and protection services in accordance with (IAW) applicable Department of Defense Instructions (DoDI), Army Regulations (AR), the National Fire Protection Association (NFPA) Standards, Unified Facilities Criteria (UFC), and the Garrison Commander's policies.

### **1-4. RESPONSIBILITIES**

a. Responsibilities and procedures for implementing the fire prevention and protection program are contained in AR 420-1, Facilities Engineering, Army Facilities Management. In addition to responsibilities outlined in AR 420-1 for the Installation Commander and the Installation Fire Chief, the following responsibilities are applicable to this installation.

b. Fire Chief will: Ensure the following services are available to RSA, twenty-four hours per day, seven days per week: Fire Suppression, Emergency Medical Services (EMS), Hazardous Materials Response, Special Operations (e.g., Trench, Water, Confined Space, High Angle and Vehicle Extrication Rescues), and Fire Prevention services that include, but not limited to, Fire Risk Management Surveys (Fire Inspections), Design Reviews, Hot Work Permits, Specialized Fire Prevention Training, and other Public Safety Training.

(1) The installation fire chief, the Senior Fire Officer (SFO) on duty, or their designees are delegated the authority to effect stoppage of operations when deemed necessary to protect life or property due to fire hazards or threat of fire.

(2) The installation fire chief or, in the fire chief's absence, the SFO on duty, at an emergency scene is designated the incident commander (IC) and is in charge of all fire fighting and rescue operations. During these operations, personnel outside the F&ES organization will not give orders to, or interfere with, the IC or firefighters.

(3) In the event of situations not specifically addressed by the provisions of this regulation, the NFPA Standards and UFC shall apply. The Fire Prevention Office will be

consulted when issues related to fire protection or interpretation of fire prevention requirements arise.

c. Tenant activity commanders, directors, contractors, lessees, and chiefs of other organizational elements will:

(1) Ensure Fire Prevention programs are established to meet their organization's needs, the parent organization's requirements, and meet the minimum standards of this regulation. Program elements should not duplicate the efforts of the RSA F&ES Division.

(2) Appoint on orders or by letter, a Building Evacuation Coordinators with the authority and responsibility to discharge the actions necessary to conduct an aggressive fire prevention program.

(3) Assist the fire chief or his designee with carrying out the F&ES program and provide the necessary liaison between their organizations and the fire chief.

e. Building Evacuation Coordinators will:

(1) Assume the duties and responsibilities of the Building Evacuation Coordinator in those facilities or spaces to which they have been appointed.

(2) Coordinate their fire prevention activities with their Organization and the Installation Fire Prevention Office, phone number 256-876-7005.

(3) Appoint deputies to assist with duties in those buildings where necessary by virtue of size or occupancy.

(4) Perform monthly end-user level fire inspections of work areas and correct any hazards identified. Building Evacuation Coordinators will perform routine inspections of barracks living quarters to ensure compliance with fire safety standards.

(5) Develop and maintain an Emergency Action Plan for their assigned building. All Organizations/activities must have an Emergency Action Plan developed and reviewed with employees, and maintained on file by all assigned Building Evacuation Coordinators. Each employee should sign that they have read and understand the Emergency Action Plan within 30 days of appointment and annually thereafter.

(6) Maintain a fire prevention file folder that contains records of past fire inspections, fire and life safety related work requests, evacuation drills conducted, and fire prevention training conducted.

(7) Ensure their employees are trained and understand their fire prevention responsibilities, fire and emergency reporting procedures, evacuation, and proper use of fire extinguishers.



b. A minimum 28 inches will be maintained between each individual work station. When two or more persons must enter into the same exit way, a clear and unobstructed 36 inches will be maintained. Where exiting personnel are given a choice of two directions to an exit, 44 inches of clear unobstructed egress shall be maintained.

c. Self-closing doors will not be blocked/propped open at any time.

d. Personnel will not lock open, block, or otherwise obstruct the normal operation of fire doors, smoke doors or fire shutters. Fire doors will not be altered or modified in any way.

e. Hallways, corridors, stairways, and vestibules leading to exits; attics; and spaces under stairs will not be used for storage or as workspaces.

## **2-2. CONSTRUCTION, ALTERATIONS, AND MODERNIZATION**

a. New construction, renovations, and modernization projects will be coordinated through the Directorate of Public Works (DPW) and comply with UFC 3-600-01 and all other applicable UFCs. For repair projects, only the new work is required to comply with the provisions for new construction. As a minimum, existing buildings will comply with the requirements of NFPA 101.

b. The inspection, testing, and maintenance (ITM) of fire protection systems and water distribution systems shall comply with applicable NFPA codes and UFC 3-600-02.

## **2-3. FIRE EXTINGUISHERS**

a. The facilities engineer or user will furnish the initial purchase and installation of fire extinguishers in newly constructed facilities and their replacement in existing facilities per the UFC. The fire department will inspect and determine the type, size, and location of extinguishers per NFPA 10, Standard for Portable Fire Extinguishers. Fire extinguishers will not be furnished in family housing areas, unless required by NFPA 101. However, residents may acquire privately owned portable fire extinguishers and are encouraged to receive training on proper use from the fire prevention office.

b. Facility Managers will fund and inspect all fire extinguishers within their area of responsibility. IAW NFPA 10, these inspections will be monthly and documented on the extinguisher tag or spread sheet and kept in that building's facility fire prevention folder.

Monthly inspection:

- . Extinguishers are in their designated places
- . There are no obstructions to access or visibility
- . Safety seals are not broken or missing
- . There is no evidence of physical damage or corrosion
- . Pressure gauge readings are in the proper range or position
- . Operating instructions are legible and facing outward

- . Fullness - confirmed by lifting
- . Chemical Looseness - shake or rotate/turn extinguisher vertically to reduce settling

Annual inspection:

- . Perform monthly inspection
- . Remove existing tamper seal and install new tamper seal

Six year maintenance, Repair and hydrostatic testing of fire extinguishers shall be accomplished by a certified fire extinguisher maintenance company. There are several companies in the local area. The building user is responsible either to replace the fire extinguisher with a similar type/size or send to a certified extinguisher maintenance company for necessary maintenance using their government credit card

c. Fire extinguishers will be installed IAW the criteria listed in NFPA Standard 10 and Army Regulation 420-1.

d. Fire extinguishers in facilities will not be used for any reason other than fire extinguishment. They will not be used as doorstops, equipment braces, etc. Fire extinguishers will not be removed from locations where they were originally installed except for required maintenance, or for actual use in extinguishing a fire.

e. Discharged extinguishers will be reported to the fire department with the reason for discharge. ALL fires are, no matter how small or if the fire is already extinguished, are reportable per AR 420-1. Replacement, re-service or repairs are the responsibility of the tenant.

## **2-4. SMOKING CONTROL**

Unsafe smoking practices and improper disposal of smoking material are a significant cause of fire. To eliminate these causes, definitive control measures will be enforced and observed by all personnel.

a. Smoking is prohibited in all federal facilities unless otherwise designated. Smoking within 50 feet of all main entrances, exits and egress pathways are prohibited.

b. Smoking is prohibited in vacant or secured buildings, battery charging rooms, woodworking shops, paint shops and sheds, photographic rooms, fuel storage areas, or any place where flammable liquids or explosives are handled, or where explosive dust or vapors may be present.

c. Smoking is prohibited within 50 feet of gasoline dispensing operations, bulk oxygen storage facilities, areas where bituminous or plastic coatings are applied, flammable liquid or gas handling storage areas, and aircraft parking areas.

d. Smoking is prohibited in all areas where explosives, chemicals, flammable or highly combustible materials are stored or handled. Designated smoking areas located inside test areas that handle explosives will follow DA-PAM 385-64 section 6.3.

e. All personnel will monitor outside smoking areas to ensure personnel dispose of smoking materials in noncombustible receptacles. The containers utilized for the disposal of smoking material must be metal containers (butt cans) equipped with self-closing metal lids or approved non-combustible containers designed for this purpose.

f. Discarded smoking materials and combustible trash will not be mixed in any container.

g. Smoking is prohibited in all government owned/operated vehicles.

h. Discarding smoking materials from moving vehicles is prohibited.

e. E-cigarettes are prohibited from use indoors.

## **2-5. OPEN FIRES, WELDING, CUTTING AND BRAZING OPERATIONS**

a. Open burning, e.g., leaves, grass clippings, or trash burning, is prohibited on Redstone Arsenal. Special consideration will be given in unusual circumstances by requesting approval from the Alabama Forestry Commission and by notifying the Installations Forester at 256-313-3558.

b. As a component of the Wildland Fire Management Plan, a control burning program will be established by the Installation Forester, DPW Environmental Division. Areas will be burned to enhance conservation efforts as well as to manage the potential severity of wildland fires on RSA.

c. Areas posing a potential wildland fire problem for F&ES personnel will be burned as needed.

d. Fireworks of any kind are prohibited on Redstone Arsenal. Fireworks shall not be sold, stored, or used on the installation at any time.

e. Burning of candles in facilities on RSA is prohibited with the exception of Religious activities. All other uses of candles must be approved through the Fire Prevention Office.

## **2-6. Hot Work Permits**

a. IAW NFPA 1, Chapter 41.3.4, operations or processes conducted outside an approved area and that produce an open flame, produce sparks or slag require a Hot Work Permit. Approved areas meet fire, safety, and environmental health requirements and have been designated and approved by the Installation Fire Chief or designated representative.

b. Contractor personnel who successfully complete the Hot Work Permit training class presented by the Fire Prevention Office and are certified will be authorized to open and close their own Hot Work Permits IAW prescribed guidelines of NFPA 1, Chapter 41.3.4. For all other contractors or personnel, Hot Work Permits are issued by personnel from the F&ES Division after an inspection of the work site or process conducted. To open or close-out a Hot Work Permit, telephone 256-876-5974.

c. Request for hot work permits where explosive/hazardous materials are stored, handled or used also require inspection and approval by Safety Office in addition to F&ES. Permits in these areas will be cosigned by both an installation Fire Prevention official and the Safety Office with any special required actions listed.

d. Requests for permits in the areas listed in “c” should be coordinated a minimum of 48 hours in advance of the work date to prevent any delay in work due to non-availability of a fire inspector or safety specialist.

## **2-7. HOUSEKEEPING**

a. Combustible materials will not be stored in mechanical rooms, equipment rooms, under stairways, in attic crawl spaces, against building exteriors, or in other hazardous areas. Waste receptacles used inside buildings will be of noncombustible material or approved self-extinguishing plastic.

b. Excessive amounts of waste material will be removed from buildings daily. Exterior waste storage containers will be located at least 10 feet away from buildings. All combustible materials will be kept at least 3 feet from space heaters.

c. A 36-inch minimum clearance will be maintained around fire extinguishers, fire protection equipment, manual pull stations, and fire alarm panels. Storage of materials in buildings shall have 24 inches of clearance from the ceiling in non-fire sprinkled buildings, and 18 inches of clearance from the ceiling where buildings have fire sprinklers.

d. Kitchen and bakery exhaust systems, including hoods, filters, ducts, electrical systems, and equipment, will be kept free of grease and dirt. The entire exhaust system will be professionally cleaned IAW NFPA Standard 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. They will be cleaned more often if grease and oil accumulation is at an unacceptable level creating a fire hazard.

e. Exhaust systems for cooking equipment in kitchens will meet all applicable requirements of NFPA Standard 91, Standard for Exhaust Systems for Air Conveying of Materials, and NFPA Standard 96.

f. Lint collectors for clothes dryers in laundries and sawdust and shavings collectors in woodworking shops will be cleaned daily.

g. Hazardous materials, petroleum products, hot ashes/coals, or any explosive components will not be disposed of in dumpsters.

h. Work clothing, shredded paper, oil- and paint-soaked rags, shavings, dust, and similar materials, will be disposed of in self-closing metal containers or noncombustible containers with covers, and removed from the building as often as practical to prevent a hazard. Combustible packing materials will be stored in metal containers.

i. Trash and recyclable materials containers will not be allowed in the means of egress at any time.

j. A high standard of cleanliness and good housekeeping will be maintained at all times in and around all facilities on the installation. Trash and recyclable materials will not be allowed to overflow receptacles.

## **2-8. HEATING EQUIPMENT**

a. Space Heaters (liquid fuel), portable gas or liquid fuel space heaters are prohibited in family quarters or where personnel sleep (including tents), and facilities.

b. IAW RSA Garrison Policy No. 1-6, 2010 edition, portable electric space heaters ARE NOT AUTORIZED on RSA unless a written waiver is granted by the Installation Energy Manager and the employer's supervisor, and a F&ES fire inspector has inspected the heater for Underwriters Laboratories (UL) or Factory Mutual (FM) certification, tip-over switch/thermals shutoff, and other requirements. The fire inspector must also approve the location of the heater. There must be AT LEAST 36 inches of clear space all around the heater and this space must be maintained at all times. Placing a portable space heater under a desk is not acceptable as this does not provide the 36 inches of clearance. Power supply cords and plugs will be in good condition, and the supply circuit will be adequate for safe use. NFPA Standard 70, National Electric Code, is the minimum requirement for electrical wiring and equipment. Only authorized electricians will install, repair, and change electrical wiring, fittings, or attachments.

c. Only UL or FM labeled appliances and equipment are authorized for use and space heaters must have tip over shutoff protection.

## **2-9. COOKING APPLIANCES**

a. Deep fat/oil fryers will be equipped with a separate high-limit thermostat, in addition to the adjustable operating thermostat. This thermostat will shut off fuel or energy when the temperature of the oil exceeds 475 F (246C), 1 inch (25.4 mm) below the surface. High limit thermostats must be tested every 6 months by a qualified electrician.

b. Cooking is not permitted in any facility that is not designed for this function. Cooking can only be performed in rooms specifically designated and approved as kitchens. The

practice of cooking on a hot plate, electric frying pan or gas stove in areas where no kitchen exists, i.e., warehouses, offices, shops, etc. is strictly prohibited.

c. Cooking operations will be closely monitored and all areas will be cleaned regularly to prevent the accumulation of grease.

d. Personal liquefied petroleum gas (propane or butane) fueled devices will not be used for heating, cooking, lighting, or stored inside any building or facility on RSA.

e. Cooking in facilities with a residential stove in an area not designed for this function is not authorized unless approval from the Fire Prevention Office is obtained. The stove must meet the exception requirements of NFPA 96, Chapter 1, paragraph 1.1.4 2011 Edition and NFPA 1, Chapter 50 paragraph 1.1.4 2009 Edition. The stove will not be used for commercial cooking operations. Supervisors and managers are responsible for ensuring the proper operation and that usage will not create any additional fire hazards.

f. When facilities that have a residential stove waiver “e” above are renovated or the cooking equipment replaced, the area and cooking equipment must be brought into compliance with the requirements of the UFC 3-600-01.

g. Cooking with animal fats, various oils, etc., is prohibited outside of facilities designed for that purpose.

h. Outdoor cooking or barbecuing will be in appliances or in areas designed for that purpose and will not be closer than 15 feet to any structure, ventilation systems, vehicles, or any combustible materials.

NOTE: Hot charcoal will be properly disposed of and will not be discarded in trash containers.

i. During special functions, supervisors will designate a person to be responsible for monitoring the cooking operations. Supervisors will ensure cooking monitors are briefed on their fire prevention responsibilities. A fire extinguisher must be within 50 feet of operations.

## **2-10. FLAMMABLE/COMBUSTIBLE LIQUIDS**

a. All flammable and combustible liquid storage will meet requirements of NFPA Standard 30, Flammable and Combustible Liquids Code.

b. Using organizations will monitor flammable and combustible liquid storage. Do not co-mingle empty or full drums, cylinders, and other containers used for storage of flammable liquids or gases, in the same storage areas.

c. Flammable liquids will not be stored or dispensed in quarters, places of public assembly, warehouses, or in buildings containing sources of ignition, such as cooking

devices, open electric motors and motor vehicles. They will never be stored where welding, cutting, brazing and grinding operations are conducted.

d. Flammable liquids and substances shall be properly stored in an approved storage cabinet at all times. Exception: A one day supply of any product used in a facility, process, or function may be openly stored during the workday. At the close of business, however, the product shall be placed in the proper storage cabinet. The number of storage cabinets in a facility or area will be determined by fire prevention personnel based on occupancy and NFPA 30.

e. Class I flammable liquids such as gasoline, jet fuels, etc., will be stored in approved safety cans in well-ventilated areas. General-purpose warehouses storing flammable liquids will have separate detached buildings, or will be separated from other occupancies by a standard 4-hour firewall or a fire partition having a fire resistance rating of not less than 2 hours.

f. Flammable or combustible paints, oils, varnishes, and similar mixtures used for painting or maintenance may be kept in shops and maintenance areas as long as the total quantity does not exceed 120 gallons and they are stored in an approved metal storage cabinet which is labeled "Flammable--Keep Fire Away." Quantities of flammable or combustible paints stored temporarily in closed containers will not exceed a 10-day supply at anticipated rates of use.

g. All storage cabinets will be kept clean and free of spills. Lids will be secure at all times and leaking containers will be removed.

h. Broken bales of dry waste, wiping rags, excelsior, and other packing material will be placed in noncombustible containers with lids.

i. Aircrafts, vehicles, and other equipment, which operate on a flammable liquid fuel, will not be refueled or de-fueled inside buildings.

j. When leaks or spills are detected during servicing, operations will be immediately stopped. All spills will be reported by dialing 911 immediately. Evacuate personnel from the area. Do not allow vehicles or other sources of ignition to enter the area.

k. Flammable and combustible liquids may be stored in general-purpose warehouses as long as the liquid storage area is separated by a standard firewall from the remainder of storage.

l. Open flames and smoking is not permitted within 100 feet of any open vessel containing flammable liquids. Open flames or smoking will not be permitted within 50 feet of any vent discharging flammable vapors from tanks or other containers, or where fueling or transfer operations are being conducted.

m. Electrical fixtures, switches, motors, wiring devices, extension cords, fittings, portable lamps, electric control devices, flashlights, and all signaling and communications systems, when used in close proximity to flammable vapors, will be of an approved vapor proof type IAW NFPA Standards 30 and 70.

n. Only authorized and properly trained personnel are permitted to operate major fueling equipment. Knowledge of the equipment, hazards involved, and the regulations for handling flammable liquid is required. The operator must be familiar with the location of the nearest telephone, how to call fire & emergency services, and location and operation of first-aid and fire extinguishing equipment. De-fueling into open containers is strictly prohibited.

o. Vehicles transporting explosives will not be refueled with gasoline while explosives are in the vehicle, except in an emergency. The operation will only be conducted with the engine stopped, all lights and radios off, and static grounding devices properly connected.

p. Makeshift fuel dispensing or de-fueling arrangements are prohibited. Fuel dispensing, storage locations, arrangements, and equipment will be IAW the pertinent requirements of NFPA Standards and applicable Army Technical Manuals

## **2-11. STORAGE AND HANDLING OF HAZARDOUS CHEMICALS AND EXPLOSIVES**

a. Buildings and areas where munitions and hazardous material are stored must be marked with the appropriate fire and hazard symbols. Professional fire department and safety personnel will be consulted on the use of proper fire and hazard symbols.

b. Ammunition storage:

(1) The handling and storage of munitions will be IAW DoD 6055.9-STD, Ammunition and Explosives Safety Standard, and AR Pamphlet 385-64, US Army Explosives Safety Program.

(2) Waste materials such as oily rags, combustible scraps, and paper within an explosion area will be separated and placed in a metal container with a self-closing lid.

(3) Matches, flame, or spark-producing devices are not permitted in any explosive area except with written authority of the Installation Commander.

(4) Smoking is not permitted except in designated areas.

(5) Vehicles will not be parked within 15 feet of buildings containing explosives.

(6) All motor vehicles and aircraft transporting or being loaded with explosives will be conspicuously placarded.

(7) When the use of spark, flame or spark producing devices such as cutting, welding torches or soldering equipment is required in areas of buildings where explosives are stored, handled or processed, coordination with, and approval by, the safety office and F&ES is required.

(8) Vehicles loaded with explosives will not be left unattended except in officially designated holding areas within an explosive storage area. Fire hazard symbol numbers with a no smoking sign as required by AR Pamphlet 385-64, and DoD 6055.9 STD, need to be posted at each storage area.

(9) Aircraft loaded with explosives will not be placed inside a maintenance hangar until all munitions and explosives have been removed. The only exceptions are cartridge and propellant activated devices used in personnel egress systems and pyrotechnics stored in survival and rescue kits.

(10) Personnel in charge of explosives operations will notify the 911 Center via administrative number 256-313-6423 each time explosive locations or the symbol/hazard marker changes.

(11) Vegetation in all explosive areas and adjacent to explosive facilities/areas will be controlled to prevent growth from reaching hazardous levels.

#### c. Hazardous Materials.

(1) Bulk storage of acids and other hazardous chemicals which generate poisonous gases, will be stored in separate, well-ventilated buildings, and isolated from other types of materials. Containers will be safeguarded against any mechanical damage. Storage will be a safe distance from other buildings.

(2) Smoking, use of matches, mechanical lighters, and other flame- or spark-producing devices will not be permitted in any petroleum, oil, and lubricants (POL) area, or building employing storage of acids or other hazardous chemicals.

(3) Hazardous chemicals will be stored in buildings designed, designated, and isolated, for that specific purpose.

(4) Buildings and storage areas containing hazardous chemicals, ammunition, and explosives, will be identified with the appropriate hazard symbol.

## **2-12. PAINTING**

a. Approved spray paint booths will be provided for recurring paint spraying operations. These areas will have adequate ventilation IAW NFPA Standards.

b. When painting (spray or brush) takes place at a fixed location, such as a paint shop, this area will be separated from other operations or combustible structures by a minimum of 50 feet. Paint shops located inside maintenance sheds attached to, or within 50 feet of combustible structures or buildings housing hazardous operations will be constructed of Noncombustible materials such as corrugated metal, gypsum board, or masonry.

c. Open flames and open-flame heating devices are not permitted in paint shops.

d. Only explosion-proof motors will be used on powered paint mixers.

e. The supply of paint materials in paint shops will be limited to the quantity necessary for one week's consumption for the jobs in progress. NFPA Standards for storage and use of flammable liquids will be followed in paint shops and interior painting activities.

f. Ventilation adequate to prevent the accumulation of flammable vapors must be provided in all areas where painting is conducted.

g. Special precautions must be taken to keep the paint shop or area clear of extraneous combustible material.

h. The use of blow torches or other improvised open-flame appliances for paint removal or wood staining constitutes a fire hazard. Any operation of this type requires a DA Form 5383-R, Hot Work Permit, issued by the Fire Prevention Office, 256-876-5974.

## **2-13. ASPHALT AND TAR KETTLES**

a. Prior to placing kettles in use, approval must be obtained through a Hot Work Permit, DA Form 5383-R, from the installation Fire Prevention Office. All asphalt and Tar Kettle operations will be IAW NFPA 1 Chapter 16.7.

b. Asphalt and tar kettles must be located at least 15 feet from buildings, combustible materials, and must be constantly watched while in use. In event of a fire, users should attempt to extinguish the fire if it is safe to do so, close lid and immediately call 911 to report the fire. All fires shall be reported via 911, regardless of if the fire is extinguished by the user, to ensure the area is fire-safe and to prevent re-ignition.

c. Asphalt and tar kettles must be equipped with operational temperature gauges, fusible link lids, and must be kept clean at all times with no buildup of excess tar surrounding the kettle.

d. A minimum of two (4-A:40-B:C) fire extinguishers must be readily available during all kettle operations.

e. Shut-off valves on the fuel supply line to all asphalt or tar kettles must be located at a safe distance and upwind from the tar kettle.

## **2-14. COMPRESSED GAS CYLINDERS**

Compressed gases for welding and cutting will be handled and stored IAW requirements of NFPA 51, Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting and Allied Processes, 2007 Edition.

a. Oxygen cylinders will be stored away from oil, grease, and highly flammable material.

b. Flammable and nonflammable gases will be stored a minimum of 20 feet apart. The recommended distance is 50 feet apart, unless separated by a fire rated wall. Empty cylinders will be isolated from those that are full. All cylinders will be provided with valve safety caps.

c. All compressed gas cylinders will be stored in a location that will afford protection from heat, dampness, tampering, pilferage or the danger of mechanical injury, and will be securely anchored (i.e. chained, strapped, or bracketed).

d. Cylinders containing liquids or gases that are not compatible will not be stored together. Where Compressed Gas are being stored inside of rooms or cabinets, the room or cabinets containing compressed gases shall be conspicuously labeled as follows: "COMPRESSED GAS" and labeled with the appropriate NFPA 704 sign if the gas is a Health, Flammability or a Reactive Hazard.

e. Acetylene cylinders will be placed in an upright position at least 60 minutes before being used.

f. Oxygen and acetylene cylinders used for welding operations will be mounted on a secure, wheeled cart, or will be securely mounted to prevent tip-over or mounted on a wall at all times.

g. Installation and operation of specific equipment for National Fuel Gas systems will be IAW NFPA 54-2009, National Fuel Gas Code, ANSI Z223.1-2009 and the UFC 3 – 600-01.

## **2-15. ELECTRICAL WIRING SYSTEMS, EQUIPMENT, AND APPLIANCES**

a. NFPA Standard 70, National Electric Code, will be the minimum standard for all electrical wiring and equipment. Only authorized electricians will install, repair, and change electrical wiring, fittings, or attachments for electrical appliances.

b. Electrical systems and equipment installations and repairs will be made only by qualified DPW electricians or properly licensed contractors.

c. Prior to adding any electrical equipment to an existing circuit, the electrical circuit will be surveyed by qualified DPW electricians to determine if an overload condition will occur.

d. Electrical appliances that do not have approval from a nationally recognized testing laboratory such as UL and FM, for US products are prohibited from use on DoD installations. Users of appliances will comply with the manufacturers' safety precautions and instructions packaged with the product.

e. Devices that interfere with the normal operation of a circuit breaker or fuse will not be installed. Whenever a circuit has been interrupted by a tripped breaker or blown fuse the source of the disturbance will be located and eliminated before restoring power to the interrupted circuit. Circuit breakers are not to be used as switches, unless the breaker is specifically designed for switching.

f. Only electrical extension cords approved by UL are authorized. Cords will be of sufficient rating (wattage and amperage) for the loads they are to carry, and in no case, will they be smaller in size (capacity) than the cord attached to the appliance. Extension cords will not be used in series. Extension cords will not be used as fixed wiring, nailed, tacked, or stapled to walls or ceilings, draped over pipes, or run through doors or under rugs. Extension cords will not be run through windows, holes in walls, in between doors or under carpets or rugs. Cords and the plugs will be replaced as soon as they show any appreciable wear. Cords will not be spliced. Extension cords will not be used with electrical appliances when the manufacturer's instructions warn against their use.

g. Multiple sockets will not be "ganged" together. The total wattage of appliances on the same multiple sockets are limited to 660 watts.

h. Building occupants will not tamper with circuit breakers and fuse boxes. Blown fuses and tripped circuit breakers are an indication of an overload or fault and will be reported to DPW immediately via emergency work order request.

i. Lighting equipment designed for field use will not be used in buildings on RSA.

j. Ground fault circuit interrupter (GFCI) outlets will be installed at all locations where water is present. A minimum of a 3 foot clearance will be kept away from wet locations.

## **2-16. VEHICLE PARKING AND STORAGE**

a. Parking of vehicles will be controlled to ensure free access of emergency response equipment to all sides of buildings, structures, fire protection systems, post indicator valves, fire department connections and fire hydrants. No vehicle, equipment, or storage will obstruct a prescribed fire lane. If an area is determined to be a potential danger for

exposure, or restrict firefighter access, no parking will be allowed in this area, as determined by the authority having jurisdiction (AHJ). The RSA Garrison Commander has designated the DPW Fire Protection Engineer as the AHJ for design and constructions and the Fire Chief for F&ES operations, fire prevention, and administration.

b. Parking of flammable liquid transport vehicles: Tank vehicles used for transporting flammable or class II combustible liquids will be grounded and will be parked in groups of not more than three. There will be a minimum of 50-foot separation between groups. Parking locations will be selected so the vehicles are accessible from all sides for fire fighting operations, and so that any of the tank vehicles can be moved (either under their own power or towed) from their location without moving another vehicle.

c. Petroleum fuel trucks will not be parked within 100 feet of a medical facility, place of public assembly, school, or barracks, except when delivering fuel, and will not be parked within 50 feet of any other type structure.

d. Motor vehicles will not be parked inside buildings not designated for such purpose. Vehicles will not be unnecessarily left in maintenance shops overnight.

e. Ammunition and explosive carrying vehicles will not be parked in occupied building areas.

f. Privately owned gasoline or diesel-powered vehicles and equipment will not be stored in U.S. military facilities.

g. Additional precautions can be found in AR 385-55, Prevention of Motor Vehicles Accidents.

## **2-17. FIRE HYDRANTS**

a. Whenever fire hydrants are placed out of service for any reason, F&ES will be notified immediately by dialing 256-313-6423 (J911 Center Admin Line). Out of service hydrants will be marked with a metal disc 9 inches in diameter and painted a conspicuous color. This disk will be attached to the hydrant by means of a hole in the center of the disc that will fit over the hydrant outlet and be held in place by the outlet cap. F&ES and the J911 Center will be immediately notified whenever an out of service hydrant is restored to service.

b. Fire hydrants will not be used for other than firefighting purposes without prior approval of the installation Department of Public Works Water Division and the notification of the installation Fire Chief or on-duty SFO.

c. Parking is prohibited within 15 feet of any fire hydrant.

**Section III**  
**FIRE PREVENTION MEASURES FOR SPECIAL ACTIVITIES**

**3-1. PLACES OF PUBLIC ASSEMBLY**

a. Managers of places of public assembly and recreational facilities will follow the fire prevention program, and will ensure employees are trained and understand their fire prevention responsibilities, fire reporting, facility evacuation, first aid, and fire extinguishing procedures. The training will be conducted initially and periodically thereafter. This training will cover the following items:

- (1) Recognition of fire hazards and means for their correction with emphasis on good housekeeping and safe electrical practices.
- (2) Procedures for fire reporting and facility evacuation.
- (3) Use of first-aid and fire extinguishing equipment pending arrival of F&ES responders.
- (4) Ensuring exit lights and emergency lights are operational.
- (5) Conducting closing inspections and security checks.
- (6) Ensuring 30-inch aisles are maintained where tables and moveable chairs are used.
- (7) Ensuring all exit doors are unlocked and not blocked during operational hours.

b. Managers or their assistants will conduct closing inspections on a daily basis. This responsibility will not be delegated to janitorial personnel. A closing inspection checklist will be developed by the facility manager and, as a minimum, will include the following:

- (1) All electrical kitchen equipment switches are placed in the off position.
- (2) All cushions in chairs and sofas have been inspected for smoking materials.
- (3) Portable electrically operated devices or appliances, including amusement and vending machines, not essential for after hour's maintenance, have the switches placed in the off position.
- (4) Trash receptacles are emptied and trash is placed in containers outside of the facility.
- (5) Cigarette materials are segregated from other combustibles during cleanup operations and are disposed of outside the facility.

(6) Exits are checked prior to opening to ensure doors are unlocked and panic hardware and exit lights are functioning properly.

c. Managers of facilities in which commercial or restaurant-type cooking is accomplished will ensure the following procedures are followed:

(1) All installed grease filters and exposed surfaces of kitchen range hoods are cleaned daily to prevent accumulation of grease. A spare set of filters is required in kitchens that are continuously operated.

(2) Kitchen range hoods and exhaust ducts will be professionally cleaned at least every 6 months or as necessary to prevent accumulation of grease. This contractor cleaning includes fans, roofs, louvers, exterior walls, cupolas, etc.

(3) Managers will maintain the following information on file for each range hood:

(a) Date hood, ducts, and filters were last cleaned and records kept up to date.

(b) Name of contractor who serviced/cleaned system.

(c) Date extinguishing system was checked, serviced, and by whom.

(4) Ensure cooking is not permitted under a range hood without grease filter(s) installed.

(5) Provide a metal clad cover for each deep fat fryer. Preposition cover for immediate use in case of a fire.

d. Carpets, curtains, and draperies will be fire resistant and/or treated for fire resistance. Certification will be maintained by the facility manger.

e. All decorations to be used for special events (i.e., banners, artificial floral designs, lighting and Christmas decorations) will be approved by the F&ES prior to use. Any decoration declared a fire hazard will be removed immediately.

f. A fire prevention inspector will inspect the facility prior to start of any social and/or special event.

g. F&ES Inspectors will make frequent unannounced inspections of these facilities/buildings.

h. Special precautions and requirements for public buildings:

(1) Trash containers, including containers installed in rest rooms or lounges, will be of the self-closing type, or noncombustible with a noncombustible lid. Lids to portable trash receptacles will be kept closed except for disposing of trash.

(2) Refuse, trash, wastepaper, dirty rags, or similar type material will not remain in buildings overnight. Outdoor trash receptacles will be located a safe distance from structures, and under no circumstances will trash or litter be piled closer than 25 feet to a building.

(3) Electrically illuminated exit and emergency lights will be maintained in operable condition at all times.

(4) The use of candles for illumination in club and restaurant facilities will conform to the provisions of Section II, paragraph 5e.

(5) Except for flaming-sword dishes, open-flame cooking is prohibited in the dining area of any public assembly building, clubs, snack bars, restaurants, etc. Employees preparing flaming-sword dishes at customer tables will use caution in the use of heated alcohol.

(6) Commercial restaurant cooking equipment will only be operated by qualified employees. Operating equipment will not be left unattended.

(7) Exit systems (aisles, corridors, vestibules, doors, steps, ramps, etc.) will be kept clear of furniture and decorative items that would present an impediment to exiting the facility. Exit doors will be kept un-blocked and un-locked during all hours that the facility is subject to occupancy by the public.

(8) Safety precautions in theaters (including all occupied places darkened for projection of pictures) will be IAW NFPA 101, Life Safety Code.

### **3-2. SLEEPING QUARTERS**

Individuals are not authorized to reside in any building not designated on DPW real property records as quarters. The use of below-grade basement areas for living and sleeping is only permitted when there is a second means of escape in compliance with NFPA codes.

### **3-3. HOLIDAYS AND SPECIAL EVENTS**

a. The use of candles for other than religious purposes in chapels is prohibited.

b. Commercial decorations, draperies, curtains, bunting, artificial scenery, plants, trees, flowers, and paper table cloths used for ornamental purposes in places of public assembly, will be of the approved flame resistant type.

c. During social and special functions, particular care will be taken to prevent overcrowding. The number of persons at any gathering will not exceed the occupancy limit. Standing will not be permitted in aisles or foyers leading to exits.

d. Christmas trees.

(1) The use of artificial fire-resistive trees in all buildings is required and are permitted as long as the tree does not interfere in the clear width of egress and requires the use of a 16 wire gauge extension cord or larger for Christmas lights.

(2) Live Cut Christmas trees are prohibited by the NFPA 1, 2009 Edition in the following occupancies:

(a)Public Assemblies

(b)Business

(c)Dormitories

(d)Hotels-Motels

For questions about your occupancy, please contact the Redstone Fire Prevention Office at 256-876-7005 prior to the placement of a Christmas tree inside of a building.

(3) Only fireproof ornaments will be used on trees, and in no case will candles be used as tree or wreath ornaments. Candles and flame devices are prohibited.

e. When parties are conducted for children, special precautions are necessary.

(1) The facility must be adequate from the standpoint of safe egress and follow the rules of NFPA 101.

(2) When it is anticipated that attendance by children will exceed 50, prior approval of the facility by F&ES is required. F&ES will be contacted by the party sponsor at least 3 days in advance of the event.

### **3-4. FIRE PREVENTION FOR CONTRACTORS AND CONCESSIONAIRES**

Contractors and concessionaires will comply with this regulation, to include the following:

a. Smoking is prohibited in any area, building, or location where such an act could result in possible loss of life or destruction of property by fire or explosion. Smoking materials will be deposited in designated smoking receptacles.

b. Remove debris from buildings or work areas before quitting time each day and deposit IAW installation disposal requirements.

c. The use of heat producing devices in or adjacent to buildings will be coordinated with F&ES.

d. Providing of first aid and fire extinguisher(s) is the responsibility of the contractor. At least two appropriately sized and class type fire extinguishers will be available at each job site.

e. Any work that will affect the operation of an installed fire alarm/suppression system will be coordinated with F&ES before the work starts.

f. All employees will be instructed on methods of preventing and reporting fires.

g. All fires will be reported to the Installation J911 Center by dialing '911.'

h. Welding and cutting operations will be IAW NFPA 51B.

i. Contractors will not use or close off water mains or hydrants without prior approval of DPW and notification to F&ES.

## **APPENDIX A**

### **REFERENCES**

#### **Section I. REQUIRED PUBLICATIONS**

AR 385-55 - Prevention of Motor Vehicle Accidents.

AR 385-64 Army Explosives Safety Program.

AR 420-1, Chapter 25 - Fire and Emergency Services.

DODM 6055.9-STD - OD Ammunition and Explosives Safety Standards.

UFC3-600-01- Fire Protection for Facilities Engineering, Design, and Construction.

National Fire Protection Association Standards.

National Fuel Gas Code ANSI Z223.1-1996.

RSA Regulation 1-15 – Controlling Smoking

Garrison Policy NO. 1-6 – Energy Conservation Policy

## **APPENDIX B-1**

### **ORGANIZATION/ACTIVITY EVACUATION PLAN INSTRUCTIONS**

**B-1.** An Emergency Action Plan is required for each occupied facility on this installation.

a. The emergency action plan will include the following:

(1) The building number or other identifying designation and the organization name.

(2) Method of alarm to alert building occupants.

(3) Location of fire alarm pull stations and identification of whether or not the alarm is automatically transmitted to the fire department.

(4) Method of reporting the fire to the fire department.

(5) Fire reporting telephone number.

b. The emergency action plan of the building or facility will include the following:

(1) Priorities for removing critical or sensitive property from the facility.

(2) Illustrations of evacuation routes and assignment of evacuation monitors/coordinators. These monitors will:

(a) Direct occupants to exits.

(b) Direct personnel to close windows and doors during the evacuation.

(c) Direct someone to meet fire department personnel arriving at the scene of the fire.

(d) In places of public assembly (clubs, theaters, libraries, snack bars, etc.), employees will be assigned as evacuation escorts and monitors. (See paragraph 2 of Section III of this pamphlet for more specific public assembly building instructions.)

## **GLOSSARY-1**

### **ABBREVIATIONS**

AR	Army Regulation
DA	Department of the Army
DOD	Department of Defense
DODM	Department of Defense Manual
DPW	Director of Public Works
ESF	Emergency Services Fire
F&ES	Fire Emergency Services
FM	Factory Mutual

IAW	In Accordance With
IMSE	Installation Management Southeast
MSFC	Marshall Space Flight Center
Mil-HDBK	Military Handbook
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
POL	Petroleum, Oil, and Lubricants
RED	Redstone
RSA	Redstone Arsenal
TB	Technical Bulletin
TM	Technical Manual
UFC	Unified Facilities Criteria
UL	Underwriters Laboratories



Signed/  
Brett Atwell  
Deputy Fire Chief