

DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY ALASKA
Fort Richardson, Alaska 99505-5000

United States Army Alaska Regulation 420-11

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Facilities Engineering

Fire and Emergency Services

Summary. This regulation on fire prevention and protection has been revised. This regulation assigns and describes fire prevention and protection responsibilities within the United States Army Alaska (USARAK). This regulation has been revised to reflect changes in public education, fire evacuation, minimum clearance, storage, and privately owned vehicle requirements. This revision also establishes criteria per National Fire Protection Association (NFPA) policies and Army Regulation (AR) 420-90.

Applicability. This regulation applies to all units and all military personnel and military dependents, contractors, and civilian personnel who are assigned to, attached to, stationed at, or residing on USARAK posts or facilities.

Supplementation. Supplementation of this regulation is prohibited without prior approval from the Directorate of Public Works (DPW), Fire and Emergency Services (F&ES), Attention: APVR-RPW-F.

Interim changes. Interim changes to this regulation are not official unless the Director of Information Management authenticates them. Users will destroy interim changes on their expiration date unless sooner superseded or rescinded.

Suggested improvements. This regulation's proponent agency is the DPW, F&ES. F&ES invites users send comments and suggested improvements on Department of the Army (DA) Form 2028 (Recommended Changes to Publications and Blank Forms) directly to APVR-RPW-F.

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*This regulation supersedes United States Army Alaska Regulation 420-11, dated 15 September 1999.

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Chapter 11

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Chapter 1
Introduction

1-1. Purpose

This regulation's purpose is to establish and emphasize special procedures for fire prevention throughout USARAK. It provides guidelines for fire and explosion prevention through the regulation of conditions.

1-2. References

a. Required publications.

(1) AR 385-55 (Prevention of Motor Vehicle Accidents) is cited in paragraph 8-1.

(2) AR 420-90 (Fire and Emergency Services) is cited in the summary statement.

(3) USARAK Pamphlet 200-1 (Hazardous Materials and Regulated Waste Management) is cited in paragraph 7-2a(2).

(4) USARAK Regulation 385-1 (United States Army Alaska Safety Program) is cited in paragraph 7-2a(2).

b. Related publications. (A related publication is merely a source of additional information. The user does not have to read it to understand this regulation.)

(1) Military Handbook 1008C.

(2) AR 335-15 (Management Information Control System).

(3) AR 385-40 (Accident Reporting and Records).

(4) AR 385-64 (U.S. Army Explosives Safety Program).

(5) AR 420-10 (Management of Installation Directorates of Public Works).

(6) AR 608-10 (Child Development Services).

(7) DA Pamphlet 385-64 (Ammunition and Explosives Safety Standards).

(8) Field Manual (FM) 31-70 (Basic Cold Weather Manual).

(9) NFPA Fire Codes.

(10) TM 10-4500-200-13 (Heater, Space: Radiant Model 1941 and Yukon Model M1950).

(11) TM 10-4520-261-12 & P (Heater, Space: Arctic).

(12) Uniform Building Code.

(13) USARAK Regulation 190-1 (Physical Security Program).

(14) 29 Code of Federal Regulations (CFR) 1910.38 (Fire Prevention Plan).

(15) 29 CFR 1910.157g (Authorized use of fire extinguishers).

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c. Referenced forms.

(1) DA Form 2028 (Recommended Changes to Publications and Blank Forms) is cited in the summary statement.

(2) DA Form 2407 (Maintenance Request) is cited in paragraph 2-2a.

(3) DA Form 4283 (Facilities Engineering Work Request) is cited in paragraph 8-1.

1-3. Explanation of abbreviations

- a. AR..... Army Regulation
- b. CFR Code of Federal Regulations
- c. DA Department of the Army
- d. DPW Directorate of Public Works
- e. F&ES Fire and Emergency Services
- f. FM..... Field Manual
- g. NFPA National Fire Protection Association
- h. POL..... petroleum, oils, and lubricants
- i. USARAK United States Army Alaska

1-4. Responsibilities

a. Installation commander. The installation commander will execute, maintain, and enforce the fire prevention program.

b. Command fire chief. The command fire chief will ensure an efficient operation of F&ES and will—

(1) Direct, manage, administer, and perform the responsibilities by AR 420-90.

(2) Train F&ES personnel.

(3) Review all construction projects for complete compliance.

(4) Inspect buildings, facilities, and areas to detect and eliminate fire hazards.

(5) Maintain F&ES records.

(6) Conduct fire prevention and protection education.

(7). Take immediate steps to correct actions and/or conditions that constitute imminent danger to life or property.

c. Unit/organizational commanders. Unit/organizational commanders will—

(1) Execute, maintain, and enforce a fire prevention program in their areas of control.

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(2) Appoint officers, noncommissioned officers, or equivalent civilian employees as building fire wardens for all buildings within their command and submit appointment memorandums to the fire prevention office.

(3) Immediately notify the fire prevention office of changes in building fire warden information.

d. Fire prevention inspectors. Fire inspectors are the fire chief's designated representatives and will—

(1) Conduct periodic fire risk management surveys of all buildings on post.

(2) Give a report to the building fire warden noting the hazards observed during an inspection.

(3) Maintain permanent records of all building fire inspections.

(4) Issue permits for hazardous operations.

(5) Review all alterations, renovations, or construction projects for full compliance.

(6) Conduct fire-warden training meetings semiannually or more frequently as needed.

(7) Conduct a comprehensive public education program to meet the fire prevention needs.

(8) Conduct an annual Fire Prevention Week campaign.

e. Building fire wardens. Building fire wardens will be appointed by organizational commanders, functional managers, or supervisors. Building fire wardens will—

(1) Attend semiannual, fire-warden training classes.

(2) Prepare and maintain a fire prevention plan per 29 CFR 1910.38 (Contact the fire prevention office for a sample plan. The plan is available on computer disk).

(3) Completely inspect their buildings for fire hazards once per month.

(4) Inspect building fire extinguishers monthly and sign the maintenance tag on each extinguisher.

(5) Clear snow, ice, and other obstructions from—

(a) Exits.

(b) Fire hydrants.

(c) Sprinkler/standpipe connections.

(d) Mechanical room doors.

(6) Return original fire inspection reports issued by the fire inspector to F&ES within 30 days. The original report shall show corrective action taken for deficiencies and be signed and dated by the building fire warden.

(7) Report hazardous conditions that cannot be corrected immediately to F&ES.

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f. All personnel. All military personnel, military dependents, civilian employees, and civilian contractors will actively assist and participate in the fire prevention program by—

- (1) Immediately reporting hazardous conditions that cannot be corrected to F&ES.
- (2) Knowing the building numbers and street names where they live and work.
- (3) Knowing how to report a fire or emergency. The post fire reporting number is 911.
- (4) Knowing the location of, and how to activate fire alarms.
- (5) Knowing evacuation routes and procedures. When a fire alarm sounds, occupants must assume a fire is in progress and immediately evacuate to a predetermined assembly point at least 50 feet from the building.
- (6) Immediately reporting all fires and fire alarms to F&ES even if already extinguished.

Chapter 2
Fire Protection

2-1. Fire extinguishers

- a. Personnel shall not use the building fire extinguishers unless they have been educated and trained in their use per 29 CFR 1910.157(g). In case of fire, exit the building or area immediately.
- b. The numbers, types, sizes, and locations of fire extinguishers in each building will be determined by the fire prevention office. When a significant change in occupancy, stored material, or modification of any building occurs that might indicate a change in fire extinguisher requirements, the fire prevention office shall be notified by the building fire warden.
- c. Call the fire prevention office to request fire extinguishers.
- d. No fire extinguisher or any fire extinguisher location shall be changed without approval from the fire prevention office.
- e. Fire extinguishers in designated building locations or vehicles shall not be removed and used for field exercises.

2-2. Fire extinguisher recharging and servicing

- a. Before any work can be done on fire extinguishers, a DPW service order and a DA Form 2407 (Maintenance Request) must be submitted to the post fire extinguisher repair shop.
- b. The building fire warden shall take all fire extinguishers needing service to post F&ES.
- c. Fire extinguishers belonging to table of organization units will be recharged and serviced by F&ES. The replacement of unserviceable fire extinguishers remains the responsibility of unit supply.

2-3. Fire extinguisher inspections

Fire wardens will inspect fire extinguishers monthly to ensure that—

- a. Fire extinguishers are in their designated positions.
- b. Fire extinguishers are not blocked by storage, etc., or hidden from view.
- c. Fire extinguishers are not physically damaged.
- d. Fire extinguisher hoses and nozzle tips are free from foreign matter.
- e. Fire extinguisher seals are intact.
- f. Fire extinguisher hangers or mountings are good condition.
- g. The inspection tag is current and signed.

2-4. Firefighting equipment

- a. Firefighting equipment must not be used unless personnel are trained and educated in the proper use and handling of the equipment.

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b. Control valves for firefighting distribution systems will not be tampered with or turned off/on without approval from F&ES. Evidence of leakage or physical damage shall be reported immediately to the local, DPW service-order section. Authorized personnel shall notify F&ES before performing any work on fire protection or detection systems.

c. Fire hydrants will not be used by anyone other than F&ES personnel without approval from the fire chief. The fire chief shall be notified when a fire hydrant is placed back in or out of service for any reason.

d. Installed firefighting-suppression and detection equipment shall be accessible and visible at all times. If locations are not readily visible, signs shall be installed to attract attention to their locations.

e. All fixed extinguishing systems will be inspected as required.

f. Care of the area around installed fire equipment is the responsibility of commanders, building fire wardens, unit/organization fire wardens, and the quarter's senior occupants. The specific requirements are—

(1) Fire hydrants, F&ES sprinkler connections, and standpipes will be kept clear of weeds, trash, dirt, snow, and obstructions to a depth of 18 inches below the discharge ports and within 5 feet.

(2) Snow will be removed as necessary to provide access to sprinkler valve rooms, indicator valves, furnace rooms, and F&ES connections.

(3) Vehicles will not be parked within 15 feet of fire hydrants or F&ES connections.

2-5. Installed fire alarms

a. Automatic fire-alarm systems are installed in many installation buildings. These systems operate automatically or by manual "pull" stations. Many are connected to F&ES, however, all fires or fire alarms must be reported telephonically (dial 911) to F&ES, to ensure prompt reporting and to provide additional information.

b. Installed automatic alarm systems may be used for fire-drill purposes only under the supervision of F&ES personnel.

c. Fire-detection systems will not be tampered with or disconnected. Any malfunctions must be immediately reported to F&ES.

2-6. Fire lanes

a. No vehicle, equipment, or storage will obstruct a designated fire lane.

b. Designated interior and exterior building or structure fire lanes will be clearly marked, posted, and unobstructed.

Chapter 3
Holiday Decorations

3-1. Holiday decorations and Christmas trees

- a. Natural (live) Christmas trees may be installed subject to the following:
- (1) The tree must be freshly cut.
 - (2) Immediately before installing the tree indoors, the trunk shall have a fresh butt cut on a diagonal at least 1-inch above the original cut. The tree must be braced in a sturdy, well-balanced container or stand.
 - (3) The stand must be filled with hot water. Do not allow the stand to become dry.
 - (4) Only electric tree lights approved by Underwriters Laboratories will be used. Light cords must have sound insulation and be free of splices. Do not exceed the manufacturer's recommendations about the number of strands.
 - (5) The tree must not be placed near any source of heat or flame, nor in any location that would obstruct doors, exits, or aisles in any way.
 - (6) The tree must be disposed of when the needles become dry and start to fall profusely.
- b. Uncoated aluminum/metallic Christmas trees will NOT be decorated with electric lights, wiring, etc.
- c. Outside lights will be hung properly and must be Underwriters Laboratories-approved for all-weather wiring. Cords will not be run through windows or doors nor nailed or stapled to walls.
- d. Using lighted candles is limited to the following conditions:
- (1) When they are placed in heavy-based, nontip holders and kept away from combustible materials.
 - (2) Candles are to be extinguished when the room is unoccupied.

Chapter 4
Building Maintenance

4-1. Building maintenance, modification, placement, and materials

- a. Structural alterations or additions (walls, partitions, enclosures, paneling, etc.) will not be done without written approval of the fire chief on DA Form 4283.
- b. Yard fences constructed across sidewalks leading to the front or rear entrances of any residence shall have gates that swing at least 90 degrees (with a minimum of 32 inches clear width).
- c. Door and window hardware will be kept in good working order at all times.
- d. Low-density fiberboard wall panels and plywoods will not be installed as interior finishes.
- e. Oil base paints, enamels, and varnishes having a flame spread in excess of 25 will not be used to paint stairwells or exit hallways.

4-2. Self-help painting projects

Approved, self-help, painting projects may be done if—

- a. Adequate ventilation is maintained. Do not mask over doors and windows.
- b. “NO SMOKING” is enforced in the area.
- c. At the end of each day, all soiled rags, empty paint cans, drop cloths, and trash are removed from the building. Paint and flammable liquid cans are tightly resealed.
- d. Sprinkler heads, heat/smoke detectors, and pull-stations are covered before painting and the covers removed after painting. These are NOT to be painted.

4-3. Tar kettles

Tar kettles must have a permit issued by the post fire chief or the designated representative before lighting the kettle.

Chapter 5
Warehousing, Storage, Housekeeping, and Trash Disposal

5-1. Material stacking and storing minimum clearances

a. For stacks 15 feet high and under, the clearance between the top of stored materials and sprinkler heads will be at least 18 inches. For stacks exceeding 15 feet high, the distance between sprinkler heads and the top of the stack will be increased to 36 inches.

b. Clearance when there are no sprinkler heads will be at least 36 inches to ceiling (18 inches in family quarters).

c. Materials, parts, equipment, etc., will NOT obstruct electrical equipment, switches, motors, doors, aisles, or firefighting equipment.

d. Adequate 36- to 44-inch aisles shall be maintained between stacked loads.

5-2. Storage

a. All storage will be neat and controlled at all times.

b. Excelsior, straw, plastics, and other highly combustible packing materials will be stored in metal bins equipped with fusible links and automatic closing lids.

c. Combustible storage of any type material under any open stairs is prohibited.

d. Combustible storage is prohibited within 36 inches of space heaters or heating equipment.

e. Storage is NOT permitted in—

(1) Attics or above false ceilings.

(2) Furnace rooms.

(3) Battery-charging rooms.

(4) Stairwells and exit ways.

(5) Mechanical or motor rooms.

(6) Pump houses.

(7) Crawl spaces.

5-3. Housekeeping and trash disposal

a. The exteriors around buildings will be kept free of accumulated debris, trash, weeds, and dried vegetation.

b. All building interiors will be kept clean, neat, and free of accumulated trash, lint, and debris.

c. Burning or melting floor waxes or shoe polish in any building is prohibited.

d. Range hoods and duct systems will be commercially maintained at least annually or more frequently if required by F&ES.

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e. Approved trash receptacles will be provided and used to collect all waste and trash. The containers will have metal covers in all shops and industrial areas. Using plastic trashcans in industrial areas is forbidden, unless they are Underwriters Laboratories approved.

f. The doors to refuse dumpsters will be kept closed. Dumpsters will not be placed closer than 15 feet from the roofline of any building, tent, or hut.

g. Dryer ducts and vents will be kept free of dust, lint, and debris. They will be cleaned periodically to prevent dangerous buildup. Lint traps or filters shall be cleaned between each load.

**Chapter 6
Electrical**

6-1. Building electrical service

a. All electrical installations, modifications, and additions to building electric service will be done or supervised by DPW electricians or approved electrical contractors and will meet the requirements of the National Electrical Code (NFPA 70).

b. Automatic circuit breakers, the “switches” in electric control panels, are designed to prevent wiring from being overloaded. Circuit breakers that trip frequently and fuses that burn out repeatedly will be reported to the local, DPW service-order section.

c. Circuit breaker panels and fuse boxes will be legibly marked to indicate their purpose. Fuse boxes will be labeled for the proper size fuse and not be over fused, jumped, or plugged.

d. Automatic circuit breakers will not be taped over or otherwise blocked in the “ON” position.

e. Circuit breakers will NOT be used as light switches.

f. Electric motors will be kept free of accumulated dust and lint, etc. Access to electric motors will not be blocked by storage, nor will combustible material be placed within 36 inches of installed, electric motors and equipment.

6-2. Electrical lamps, appliances, and equipment

a. Approval from an approved testing laboratory is required on all electrical lamps, appliances, and equipment.

b. The only cooking appliances allowed in nonkitchen areas are microwave ovens and coffeepots.

c. When not in use, disconnect electrical appliances and tools.

d. Wherever electrical appliances require multi-outlets, surge-protected devices shall be used.

e. Defective appliances and equipment cords will be immediately disconnected and properly replaced.

6-3. Flammable vapors

In any area or process where flammable vapors are normally present, the electrical system and equipment will be per the National Electric Code for “Hazardous Areas” (such as motor pools, hangers, and labs, etc.).

6-4. Vehicle heaters

a. Approved heaters for vehicles shall bear the Underwriters Laboratories- or Factory Mutual-approval and seal.

b. Interior vehicle heaters shall be installed and used according to the manufacturer’s instructions.

c. Using outlets other than those provided for vehicle heaters is prohibited.

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6-5. Extension cords

- a. Extension cords will be eliminated wherever possible through the relocation of portable appliances and furniture.
- b. Extension cords may be used as temporary wiring only.
- c. Extension cords will not be used in series.
- d. When extension cords are absolutely necessary and are to be left in place, they will be no longer than 50 feet. They shall be free of breaks, splices, and tape, will not be secured by nails or staples, nor run through walls, windows, doorways, or under rugs or pads. Extension cords shall be disconnected at the end of the workday.
- e. An extension cord shall never be smaller in wire diameter than the applicable cord it is to service.
- f. A single extension cord will not service more than one fixture or application unless the factory attached multi-outlet has an approved testing laboratory's label.
- g. Extension cords (temporary use) with cracked, cut, broken, or deteriorated insulation will be replaced immediately. Damaged and broken connectors, male or female, will be removed from service until repaired.
- h. Permission may be obtained through the fire chief for the temporary use of industrial-type, flexible cords for special events.

6-6. Batteries and generators

- a. Simultaneous recharging of more than six batteries shall be done only in special rooms that are provided with direct ventilation to the outside atmosphere.
- b. Battery rooms will not be used for general storage. Open flames, smoking, and spark-producing devices will not be permitted. Battery benches and racks, etc., will be acid resistant.
- c. Gasoline-operated field generators and chargers will not be installed within 15 feet of buildings or tents.

6-7. Grounding, static electricity

- a. All aboveground, flammable/combustible liquid, fixed tanks will be permanently grounded.
- b. Tank trucks and railroad tank cars handling flammable/combustible liquid will be securely bonded to grounded pipelines below gasketed flanges before any tank ports are opened.
- c. Metal barrels and drums used to dispense flammable or combustible liquids will be grounded and bonded.
- d. Ground aircraft inside shops and hangars.
- e. Ground flammable-/combustible-liquid fuel tanks that are undergoing maintenance, steam purging, etc.

Chapter 7
Flammable/Combustible Liquids and Hazardous Materials

7-1. Storage and use

a. Flammable/combustible liquids and hazardous materials shall not be located in any area, facility, building, or section of a building before an inspection and approval from F&ES. After approval, materials shall be stored appropriately and receive frequent inspections by fire wardens and supervisory personnel familiar with the existing hazards.

b. Storing combustible or flammable liquids in open containers is prohibited.

c. All flammable/combustible liquids shall be stored in approved safety cans or their original container. Safety cans and containers shall be stored in approved, flammable-liquid, storage lockers.

d. Motor pool buildings and maintenance shops requiring daily use or warm storage of combustible liquids may keep on hand a maximum of one 55-gallon drum of each required type. All of the drums will be isolated within the confines of separate fire-resistive rooms. Each 55-gallon drum used as a dispensing unit will be equipped with an automatic, self-closing valve. Drip pans will be provided under each drum.

e. Large amounts of combustible or flammable liquids will be stored outside at least 50 feet from any building, equipment, or other material. "DANGER" and "NO SMOKING" signs will be posted a minimum of 50 feet from storage areas. Grass, weeds, snow, and debris will be kept under control at all times for a distance of at least 50 feet around storage areas.

f. Store and use full 5-gallon military gasoline cans as follows:

(1) Full cans containing gasoline and similar flammable liquids will be kept in outside storage areas.

(2) All 5-gallon, military, gasoline cans will be inspected to be sure they have tight, serviceable gaskets on the plugs for the pouring outlets. Missing or deteriorating gaskets will be replaced.

(3) Gasoline cans transported in vehicles and trailers will be properly secured.

g. Store and use empty 5-gallon military gas cans as follows:

(1) Empty, 5-gallon gasoline cans may be stored in unit buildings when they have been completely drained and purged and have the lids placed back on the can in a hand-tight position.

(2) Empty cans shall not be refilled inside of buildings.

7-2. Dip tanks

a. Dip tanks shall only be located in motor pool and maintenance facilities. However, there is one exception. For weapons cleaning/parts washers adjacent to arms rooms in barracks the following criteria must be met:

(1) The specific location must be inspected and permitted according to this regulation, USARAK Regulation 385-1, and USARAK Pamphlet 200-1.

(2) The location will be of enclosed, 1-hour construction with a self-closing, 1-hour, fire-rated door.

(3) Diffusion ventilation must be available. (A window at minimum, but an exhaust fan is preferred.)

(4) A serviceable, 5-pound, ABC, portable extinguisher will be mounted outside the room.

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(5) No modifications shall be made to the weapons cleaning/parts washers.

(6) Only solvent recommended by the manufacturer and approved by the authority having jurisdiction will be used.

(7) Only small arms weapon parts will be cleaned in the device.

(8) Weapons cleaners/parts washers shall be operated and maintained per the manufacturer instructions.

(9) A portable, eyewash station shall be installed in the room.

(10) The room and the device shall be secured when not in use.

b. Dip tanks will be equipped with fusible link-controlled, automatic, self-closing lids.

7-3. Flammable liquid spillage and leakage

All fuel spills will be reported to the local F&ES immediately. The spiller will attempt to control any spills.

7-4. Fueling and defueling

a. The fueling and defueling of vehicles, forklifts, aircraft, etc., inside of buildings is prohibited.

b. Aircraft will not be fueled or defueled inside hangars or shops or within 50 feet of a building. Aircraft maintenance will be suspended during fueling operations. Should leakage or spillage occur, operations shall be stopped until the area has been cleaned properly.

c. Gravity-flow or siphoning will not be permitted.

7-5. Spray painting

Indoor spray painting will be restricted to the confines of an approved, spray-painting booth or spray-painting room.

7-6. Compressed gases

a. Cylinders will be secured at all times to prevent them from being knocked or pulled over. Valve-protection caps will be on cylinders, except when in use.

b. Oxygen cylinders will be stored away from any oil, grease, or highly flammable material.

c. Flammable-gas, cylinder storage shall be in a separate room or compartment that has no open flame and is well ventilated. In the absence of such an area, cylinders may be stored with a 20-foot clearance from oxygen, pyrophoric, or toxic gases. Otherwise, outside storage shall be used.

d. Cylinders with leaky valves or fittings shall be removed to an outside area 50 feet away from buildings and any source of ignition.

e. During welding operations, oxygen and acetylene cylinders will be located far enough away from the operator's position to prevent undue danger from radiation, sparks, slag, or misdirection of the torch flame. Cylinder valves must be closed when the apparatus is not actually in use by the welder, with the regulator and hose drained. Both gauges will read "0."

7-7. Welding and flame cutting

a. Welding, cutting, and open-flame work will not be permitted near flammable or explosive materials or in areas where flammable vapors may be present. When required, a standby fireguard, equipped with an appropriate type fire extinguisher, will be in attendance. Where hazards or combustibles are present that cannot be removed, approval for welding will be obtained from the fire chief or the designated representative.

b. Permanent welding locations shall be approved by F&ES.

c. No welding or open-flame work will be done without a permit, except in approved locations referred to in paragraph b above. The permit is good for an individual job and will be good for the length of time indicated on the permit.

d. Welders can attend the F&ES, welding-safety course and become certified to issue their own permits.

7-8. Ammunition and explosives

a. Possession of Class A, B, and C explosives for personal use (such as fireworks) is prohibited on all USARAK posts per USARAK Regulation 190-1.

b. Retail outlets displaying and selling sporting ammunition and bulk gunpowder shall meet the requirements of NFPA 495, chapter 13.

c. For ammunition reloading in family housing, refer to chapter 11.

Chapter 8
Vehicle Operation, Storage, Servicing, and Maintenance

8-1. Vehicle operation

For safe vehicle operations, refer to AR 385-55.

8-2. Vehicle storage

a. Motor vehicles will not be parked or stored in buildings other than those specifically designed as motor pools, vehicle warm storage buildings, or maintenance garages.

b. Parking and storage areas for petroleum fuel trucks, tanks, and trailers will not be established without prior approval from the fire chief or the designated representative.

8-3. Vehicle maintenance activities

a. Vehicle maintenance shall be performed in authorized maintenance facilities, motor pools, and auto hobby shops only.

b. Before performing hot work on fuel tanks that have contained flammable or combustible liquids, all vehicles will have the tanks drained, purged, and flushed with water.

c. Before hot work may begin, maintenance personnel will test the tank using a combustible gas indicator to determine that no combustible gas mixtures are present.

d. Fuel tanks will be connected to an approved and tested static ground while undergoing maintenance.

e. Petroleum, oil, and lubricant (POL) trucks and tank trailers entering shops for service, maintenance, or repairs will have fuel and cargo tanks filled to 95 percent capacity (allowing space for normal expansion) or drained and purged as in paragraphs a and b above. Any service or maintenance of full vehicles requires that F&ES be notified.

f. The driver will remain with the pump while a tank vehicle is being filled or discharged.

Chapter 9
Heating and Cooking Equipment and Open Burning

9-1. Space heaters

Electric space heaters are authorized only for personal use and they must—

- a. Be listed by an approved testing laboratory.
- b. Shut off automatically if tipped over.

9-2. Gasoline-operated hot air heaters (Herman-Nelson, etc.)

- a. Gasoline-operated heater operation in any building, tent, or hazardous area is prohibited.
- b. A minimum of 15 feet will be maintained between heaters and combustible buildings or materials.
- c. When ducts enter combustible sides of tents or buildings, fireproof insulation will be installed around the duct.
- d. Heaters will be turned off and allowed to cool before refueling is attempted.
- e. To prevent spillage, only gas cans equipped with fuel spouts will be used to fuel heaters.

9-3. Field stoves

For the safe and proper use of the Yukon stove and M194 tent stove follow the guidance in FM 31-70. Also see paragraph 10-2 of this regulation.

9-4. Cooking equipment

- a. Range exhaust hoods and filters, exhaust fans, and related equipment will be cleaned daily to avoid grease accumulation. Range hoods and duct systems will be commercially cleaned at least annually or more frequently if required by F&ES.
- b. Using barbecue grills, smokers, or any open-flame device is prohibited within 5 feet of structural walls or flammable materials. Such devices will never be used indoors, under eaves, under roof overhangs, or be left unattended.

9-5. Campfires

- a. Before starting a campfire, contact the post F&ES to find out if fires are permitted due to current weather conditions. Also let the dispatcher know your name, telephone number, and what location you will be in.
- b. Campers will be responsible for all damage due to their negligent campfires. Follow these guidelines at all times:
 - (1) Scrape all combustible material from the ground and dig a small hole (approximately 36 inches in diameter) for the fire.
 - (2) Keep campfires small.
 - (3) Do not build campfires against trees, brush, or tents.

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(4) Do not use gasoline or lighter fluid to start or quicken a campfire.

(5) Keep a minimum of 2 gallons of water nearby.

(6) Always attend campfires. Completely extinguish them before leaving the area.

(7) When done, make sure the campfire is completely out by stirring in and mixing water and dirt. Check for hot spots and cover the area with a minimum of 6 inches of dirt.

c. If a campfire should get out of control, immediately call 911 to report the fire.

Chapter 10
Fire Prevention and Fire Protection during Field Exercises

10-1. Commander's responsibility

Commanders are responsible for fire prevention and will ensure that—

- a. A unit fire warden is appointed and actively supervises all fire-prevention measures during field or training exercises.
- b. All bivouac areas, including tents, are inspected daily for fire hazards.
- c. Fire hazards are eliminated and regulations enforced, including:
 - (1) No fuel will be stored inside of tents or buildings.
 - (2) No fabric or clothing will be allowed to come into contact with lanterns, stoves, stovepipes, or heat-producing equipment.
 - (3) No smoking inside of tents.
- d. All personnel are trained in fire-reporting procedures and fire prevention.
- e. Fireguards are posted. One person, clothed and alert, will be designated as fireguard and will remain inside the tent when heating stoves lanterns or candles are burning.
- f. Personnel are trained and licensed in the proper operation and maintenance of fuel-consuming devices.
- g. No refueling of fuel-fired equipment or devices is permitted inside of tents or buildings or within 50 feet of any flame-producing device.

10-2. Field space heaters

- a. For the safe and proper use of Yukon stove, model 1950 and tent stove, model 1941 space heaters use TM 10-4500-200-13.
- b. For safe and proper use of space heater, arctic use TM 10-4520-261-12&P.
- c. For safe and proper use of commercial off-the-shelf space heaters the following conditions must be met.
 - (1) Commercial off-the-shelf heaters are prohibited for use inside any sleeping areas, unless exhausted to the outside or vented according to the manufactures' operations manual.
 - (2) Operators must be trained and licensed on each type of commercial off-the-shelf space heater.
 - (3) Standing operating procedures must be developed addressing proper use, setup, operation, and maintenance of the particular heater in use.
 - (4) The manufacturers' manual will be on-site for the particular heater in use.
 - (5) A written risk assessment will be performed and approved by the unit commander before the use of any commercial off-the-shelf space heater.

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10-3. Open fires

a. Before building an open fire, the following conditions must be met:

(1) All combustible material will be scraped from an area 6 feet in diameter and a small hole will be dug in the center down to mineral soil for the fire.

(2) Fires will be kept small.

(3) Fires will never be built against trees, logs, near brush, or other combustible materials.

(4) Open fires will never be left unattended.

(5) POL products will not be used to start or quicken fires.

(6) Clothing will not be hung over or close to an open fire to dry unless a constant guard is maintained to ensure clothing does not catch fire.

(7) Fires are not allowed if a burn ban is in effect. This can be checked out by contacting the local F&ES.

b. Before leaving an open fire, coals will be stirred while soaking them with water and all sticks turned and soaked. After the embers have been checked for hot spots, the fire pit will be covered with 6 inches of dirt.

10-4. Cooking

a. Field mess ranges or fuel-operated devices will not be refueled inside of tents.

b. Field mess ranges must be provided with a clearance of not less than 36 inches from combustible materials. This clearance may be reduced to 12 inches when protected by a noncombustible shield.

10-5. Tents

a. A safe separation distance of 10 feet will be maintained between all 5- to 10-person tents. A 30-foot minimum clearance is required for larger tents.

b. Police of tents and tent areas will be maintained at high standards. During fire season, grass and brush will be cleared from within 3 feet of tents up to and including 5- and 10-person tents and within 10 feet of larger tents.

10-6. Storage areas

a. Sites having minimum vegetation will be selected as storage areas. During fire season, grass and brush will be removed or cut and maintained at not more than 2 inches high within the area and for a space of 20 feet around it.

b. Storage piles will be limited to 6 feet high, 10 feet wide, and 20 feet long. A separation of 10 feet will be maintained between the ends of the stacks and a 20-foot fire lane maintained between the long sides.

c. POL storage areas will be strictly maintained per appropriate technical manuals. POL storage will be at least 50 feet from any tent or equipment and located to ensure drainage away from inhabited areas in the event of leakage. Four, 20-pound "ABC" LOW TEMPERATURE fire extinguishers will be provided for each 15,000 gallons of storage.

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- d. Special caution signs will be posted when the nature of the storage requires it.
- e. The area will be thoroughly policed daily and trash removed to the disposal-area pit.
- f. Reusable containers will be stored in separate piles. Containers that have held flammable liquids will be kept tightly closed and stored in a POL area.
- g. Ammunition and explosives used during field training exercises will comply with AR 385-64 and DA Pamphlet 384-64 field storage and handling areas.

10-7. Flares and smoke grenades

Personnel who are using flares or smoke grenades, or who are in the area where they are used or dropped, will locate the remains of the device and completely extinguish any burning residue and render any hot particles harmless.

10-8. Fire extinguisher distribution

Fire extinguishers will be maintained in the following locations:

- a. Mess tents.
- b. Maintenance tents.
- c. Tents that contain any heat-producing device or open flame (at least one "ABC" fire extinguisher).
- d. POL.
- e. Vehicles.

Chapter 11
Housing, Billeting, and Sleeping Areas

11-1. Sleeping areas

a. Personnel will be housed or assigned sleeping quarters only in designated barracks, quarters, or buildings.

b. Housing basements shall not be used as sleeping or living rooms. Basements do not have two means of escape, thus allow the possibility of entrapment.

11-2. Cooking

a. Stovetops, barbecues, or game smokers shall not be left unattended while in use.

b. Barbecues or game smokers shall be kept at least 5 feet from buildings and shall not be used under eaves, overhangs, or in garages.

11-3. Storage

a. Storage is not permitted—

- (1) In attics or above false ceilings.
- (2) In stairwells, under stairwells, and exit ways.
- (3) Within 36 inches of electrical panels or smoke detectors.

b. Indoor gasoline storage shall be—

- (1) Limited to 1 gallon only.
- (2) Stored in approved gasoline storage containers.
- (3) Stored away from heat and ignition sources.
- (4) Stored in a garage if available.

11-4. Ammunition

a. Hand loading of ammunition in family quarters is prohibited, except with the following conditions:

- (1) Ammunition must be for privately owned weapons.
- (2) Maximum allowance quantities on hand are as follows:
 - (a) Black powder—1 pound in the original container.
 - (b) Other powder—10 pounds in the original containers.
 - (c) Primers—10,000, with no more than 300 removed from the box at any given time.

(3) All powder and primers must be stored in locked, wooden boxes or cabinets with at least a 1-inch, nominal thickness.

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- (4) All powder and primers must be separated.
- (5) A fire extinguisher (minimum of 5-pound ABC) shall be located in the loading area.
- b. A permit for loading must be obtained from the fire prevention office.
- c. The permit will be posted near the reloading area and renewed annually.

11-5. Smoking materials

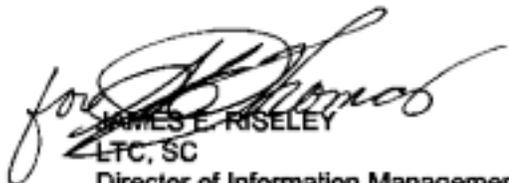
Parents are responsible for ensuring that matches and cigarette lighters are placed so children cannot gain possession of them.

11-6. Self-help projects

The fire prevention office shall approve projects such as adding walls, constructing rooms, and fencing yards before work is begun.

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