

**DEPARTMENT OF THE ARMY  
HEADQUARTERS UNITED STATES MANEUVER CENTER OF EXCELLENCE  
FORT BENNING, GEORGIA 31905-4500**

**MCoE Regulation  
No. 420-90**

**29 November 2010**

**Facilities Engineering**

**FIRE PREVENTION AND PROTECTION**

**Summary.** This regulation outlines precautionary measures for fire prevention for all personnel employed or stationed at the United States Army Maneuver Center of Excellence (MCoE) and satellite facilities. It provides guidelines, based on technical information taken from Army regulations and National Fire Protection Association Publications to protect human life and Army assets from fire or threat of fire.

**Applicability.** This regulation applies to all military members and their dependents, civilian employees, and contract personnel assigned or attached to the United States Army Maneuver Center of Excellence (MCoE).

**Supplementation.** Supplemental of this regulation is prohibited without prior approval from the Director of Emergency Services (DES).

**Suggested Improvements.** The proponent of this regulation is the Director of Emergency Services, U.S. Army Infantry Garrison, Fort Benning. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommend Changes to Publications and Blank Forms) to the Commander, MCoE, ATTN: IMSE-BEN-ESF, Fort Benning, Georgia 31905.

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\*This regulation supersedes USAIC Regulation 420-90, 24 February 1992.

**Chapter 1**  
**General**

**1-1. Purpose.**

To provide an active Fire Prevention and Protection Program and to outline precautionary measures for fire prevention for all personnel employed or stationed at the United States Army Maneuver Center of Excellence (MCoE) and Satellite Facilities.

**1-2. References.**

Required and related publications and prescribed and referenced forms are listed in appendix A.

**1-3. Explanation of abbreviations and terms.**

Special terms used in this regulation are explained in the glossary.

**1-4. Responsibilities.**

a. **Director of Emergency Services (DES).** The DES is designated as the MCoE Building Manager, having full responsibility for all fire prevention and protection activities.

b. **MCoE Fire Chief.** The Fire Chief is charged with the technical operation and employment of all fire apparatus. He/She is responsible for the organization and coordination of the fire prevention and suppression activities. His/Her duties include: training fire department personnel, inspection of buildings and areas to detect and eliminate fire hazards, maintaining fire department records, assisting in Fire Prevention and Fire Safety Education, and maintaining close coordination with related installation activities to ensure that equipment for fire protection facilities is in operable condition and properly maintained. Hazardous conditions involving storage of hazardous materials which may present a fire causing threat or that might endanger human life in the event of a fire, for which specific criteria has not been established or published will be resolved by the Fire Chief. The Fire Chief is responsible to the MCoE Building Manager and will act for him in the execution of all phases of the Fire Prevention and Protection Program.

c. **Area Building Managers.** The Area Building Managers will be appointed by the MCoE Commander from the principal organization or activity occupying each designated area. Area Marshals will determine what level of supervision is responsible for discrepancies. The FB Form 420-90-1-R-E (Fire Prevention Checklist) will be used for this purpose. A reproducible copy of FB Form 420-90-1-R-E is provided at the back of this regulation and may be reproduced on office copiers on an "as needed" basis. Area Building Managers will appoint, in writing, the required number of Assistant Area Building Managers to assist them in the performance of their duty. Their duties include:

(1) Conducting, or designating an assistant to conduct, a monthly fire prevention inspection of all buildings, structures, grounds, and fire protection facilities in the assigned area.

(2) Enforcing applicable provisions of this regulation and eliminate all fire hazards that can be eliminated, reporting all remaining hazards to the office of Fire Prevention Division without delay.

(3) Determining that all area personnel and building occupants are continuously instructed and trained in the use of fire extinguishers, fire reporting methods, and fire prevention measures.

(4) Maintaining constant liaison with the MCoE Building Manager and Fire Department, making recommendations for the improvement of fire safety and request assistance when required.

d. **Deputy Area Building Managers.** Authority is delegated to Area Building Managers to appoint Deputy Area Building Managers, as required, to carry out their mission in all matters pertaining to fire prevention. Names of the appointed Area and Deputy Area Building Managers will be furnished to the Post Fire Prevention along with their unit, section, and telephone number.

(1) Each Area Building Manager will furnish the Post Fire Chief, ATTN: IMSE-BEN-ESF, the name, unit, and telephone number of all Unit Building Managers in the assigned area, as well as the number of buildings under the control of the Unit Building Manager. Subsequent changes will be reported as they occur. Notification may be done in writing to DES Fire Prevention, Building 214, or E-mail to [Benn.dps.fireprevention@us.army.mil](mailto:Benn.dps.fireprevention@us.army.mil).

(2) Each Area Building Manager is responsible for all activities under his/her command or direction, regardless of physical location.

e. **Unit Building Managers.** Unit Building Managers are appointed in writing by the Area Building Managers. They will be

appointed for each Company-size unit or Post Activity, Branch, Division, Unit, and so forth. A Unit Building Manager may be military or civilian. An Assistant Unit Building Manager may be appointed when necessary. Prior to appointment, all Unit Building Managers will receive a block of instruction. Instructions will be conducted under the supervision of the Post Fire Chief. Their duties will include but not be limited to:

(1) Frequent spot checks to ensure that all Building Managers are complying with current regulations and directives.

(2) Enforcing Fire Regulations in the unit area of responsibility.

(3) Ensuring that all personnel are familiar with fire prevention measures and regulations and that all personnel are thoroughly trained in the use of fire extinguishers.

(4) Holding monthly meetings with the Building Fire Warden and assist them in fire prevention.

(5) Notifying the Fire Department of the results of the monthly Building Fire Inspection, quarterly, through the Electronic Mail System or a memorandum. The following information will be submitted: date of inspection, building number, Building Manager's name and a statement that the inspection has been completed.

(6) Taking immediate action to correct fire hazards noted during regular and special inspections of buildings, areas and activities, for which they are responsible.

(7) Reporting hazardous conditions, which cannot be corrected immediately, to the Work Order Section; obtain a work order number and note all information in the log book under, and/or next to the appropriate building number.

(8) Ensuring each building under their responsibility has a Building Manager appointee in writing (such as. Officer, Enlisted or Civilian).

(9) Preparing and posting unit fire plan for all buildings or activities under their control. Two copies will be forwarded to the Post Fire Chief for approval. The plan will include:

(a) Method of initiating fire alarm to occupants of buildings.

(b) Method of notifying fire department of the existence and exact location of fire.

(c) Evacuation plan and assembly area for occupants.

(d) Organization for combating the fire prior to the arrival of the Fire Department.

(e) Fire prevention rules and measures applicable to the building or activity.

(f) In places of public assembly where door guards are assigned, they will be familiar with the location of exit doors and fire doors. They will ensure that exit doors are held open during the evacuation of personnel and then ensure that all other doors and windows in their areas are closed.

(g) Capacity for places of public assembly will be strictly adhered to when the building is filled to the authorized capacity, patrons must be turned away to avoid overcrowding. Fire Prevention Personnel will determine capacity.

(10) Performing monthly fire inspections of all buildings, grounds and fire protection equipment in their area. Results of monthly inspection will be made available to MCoE Fire Chief or Fire Inspectors upon request.

(11) Conducting a monthly inspection of all fire extinguishers. Those, which require resealing, recharging, or weighing, will be the responsibility of the organizational unit.

(12) Conducting annual fire drills in each building or organizational unit as required. (See paragraph 8).

(13) Inspections of the building for fire hazards at the close of each business day.

(14) Prepare, maintain, and supervise the firefighting and evacuation plan.

(15) Receive and list corrective action taken and forward monthly Fire Inspection reports to the Unit Building Manager not later than five days from the date of inspection.

(16) Correct or report hazardous conditions immediately to the Unit Building Manager or MCoE Fire Chief.

(17) Appointing an assistant Building Manager from each tenant unit or organization to assist the Building Manager if necessary.

(18) Ensuring flammable items are not stored among the personal effects of individuals in Bachelor Enlisted Quarters (BEQs), Bachelor Officer Quarters (BOQs), and unit barracks.

(19) Assist fire department initiating disciplinary action through local commanders against persons causing damage by fire as a result of failure to comply with the provisions of this regulation or acts of negligence or carelessness. Commanders and civilian supervisors will

establish and maintain continuous educational programs to promote fire consciousness to all personnel. These programs will include but need not be limited to the following:

(a) Establishment of appropriate courses of instruction in elimination of fire hazards and in first-aid firefighting procedures for all military, civilians and dependents. Included in such training will be:

- 1. Instruction in fire prevention rules and regulations.
- 2. Instruction in fire reporting procedures. (see chapter 2)
- 3. Instruction in the operation and use of fire extinguishers.

(b) Familiarization training of newly arrived and newly employed personnel in the matters set forth in paragraph (F.3) above, in order to familiarize all personnel on such matters within 90 days after their arrival. Particular emphasis will be placed on ensuring that all such personnel attend this instruction. Training records shall be maintained in a file and available to the Fire Chief upon request.

(c) Fire guards and special police may be trained by the local fire department in the use of fire extinguishers, reporting of fires and other action necessary in case of a fire, if deemed necessary by commanders.

Note: Personnel who purposely damage or destroy fire alarm equipment will be subject to disciplinary action.

(20) Emergency Response Repository Container Units (LOCK BOX). The owner or operator of any facility is required to prepare or have available a safety data sheet and hazardous chemical inventory form under Subtitle B, Section 311 and 312 of Title III of the Superfund Amendment and Reauthorization Act of 1986 (SARA TITLE III, and shall provide a repository container (lock box) at the facility site. The lock box shall contain the following information:

(a) A current list of key facility personnel complete with telephone numbers who are knowledgeable about safety procedures of materials on site.

(b) A current emergency and hazardous chemical inventory list identifying all chemicals and hazards and a binder containing the Material Safety Data Sheet(s) (MSDS(s)) or in the event that the volume of MSD sheets is too great to keep practically in the lock box shall give the location of the on-site MSD sheets shall be readily available for use by emergency response personnel.

(c) A facility site plan to include the following information:

- 1. A set of keys to the interior of the building.
- 2. The location of storage and use of hazardous materials on site.
- 3. A current floor plan of facility.
- 4. The location of on-site emergency firefighting and spill clean-up equipment.
- 5. The Knox Box Key will be carried in a secured key box on each Fire Department emergency response vehicle assigned to the applicable fire district. The secured key box will require a PIN code for access by authorized Fire Department personnel. The key box will maintain a computer database of all key removals by PIN, date, and time.
- 6. The Fire Department will use the key to gain access to the building in the event of a fire or other emergency.
- 7. For information concerning where and how to purchase the lock boxes contact the Fire Prevention office at 545-9235, fax at 545-2477, or E-mail at [benn.dps.fireprevent@us.army.mil](mailto:benn.dps.fireprevent@us.army.mil).

(21) Each building shall have a "Knox Box" installed on the outside of the main entrance to the building. Inside the "Knox Box" will be keys for the building. The "Knox Box" shall be purchased from the Knox Company. Their address is: **Knox Company, 1601 W. Deer Valley Road, Phoenix, AZ 85027**. Their phone number is **1-800-552-5669**. When ordering, specify that the "Knox Box" will be used on Fort Benning Military Reservation so that the proper locking mechanism is installed. Informational guidance for proper location and installation of the "Knox Box" shall be provided by the Fire Prevention Division.

#### 1-5. Informational Guidance.

a. In the event a situation exists which is not covered by the provisions of this regulation, the Fire Chief will be consulted when there is doubt as to proper procedures or solutions to fire protection problems. In all cases the final authority will be the National Standard (National Fire Protection Association and National Fire Code).

b. Conformance to the standards contained in this regulation is required on all new construction and on normal maintenance, repair,

alteration, and improvements of buildings and structures, including installed equipment.

c. Written approval from the Fire Chief is required for any person to sleep in any building not basically and primarily designed and utilized as a billet or quarters. When such approved sleeping arrangements are changed or discontinued, the Fire Chief will be notified in writing by the responsible person.

d. Parking of vehicles will be regulated so that all sides of buildings and fire hydrants will be accessible, and so that sufficient space is maintained for firefighting purposes. In no event will vehicles be parked closer than 15 feet from buildings, or 20 feet from a fire hydrant.

e. Fire drills will be coordinated through the Fire Prevention Office. Fire Prevention shall be notified at least 72 hours in advance when a drill is to be held.

f. Every morning (5 days per week) the e-mail system will be checked by Fire Prevention personnel for inquiries from Unit Building Managers. Building Managers are encouraged to report conditions requiring immediate attention, or situations requiring Fire Prevention Assistance, work order follow up assistance, or inquiries concerning regulations, codes or procedures. The Electronic Mail System is an excellent method to stay in contact with or report to the Fire Prevention Division.

## Chapter 2 Procedures

### 2-1. Reporting of Fires.

a. Fires will be reported by the quickest possible means:

- (1) Manual pull (station) device
- (2) The post telephone system. 9-1-1
- (3) Commercial Telephone System. 9-1-1
- (4) When using a cellular phone on Fort Benning, the number is 911 or 706-545-2222.

b. The person discovering a fire will alert all occupants of the building, then call the 9-1-1 from the most convenient telephone and then they will give the location of the fire by building number, and if possible, inform the Fire Department what is burning and the extent of the fire. **DO NOT HANG UP** until the 911 operator has all particulars. Individuals reporting the fire will then post themselves where they can best direct the firefighting crew to the fire.

c. Local fire alarm systems installed in billets and other buildings may not be connected to the fire alarm switchboards; therefore, when an alarm bell rings in these buildings, it is necessary to use the nearest fire reporting telephone. Local alarm instructions will be posted by each alarm.

d. Evacuation of building is mandatory whenever a fire alarm is activated.

e. E911 stickers will be installed in all buildings. These E911 stickers will be posted on each telephone.

f. All fires will be reported immediately to the Fire Department regardless of size and whether or not extinguished.

g. Other than for the purpose of saving human life, nothing will be removed from the scene of a fire or any cleanup permitted, until directed to do so by the Fire Chief.

### 2-2. Fire Drills.

a. Fire drills will be held annually by each activity, unit, and detachment.

b. At any time the fire alarm is sounded, all personnel in the building will assume that a fire has occurred and immediately take the action prescribed in the unit or building fire plan. Personnel will not re-enter the building until the Fire Officer in Charge has given the all clear.

c. Results of fire drills, to include date, time, number of personnel involved, and number of minutes for evacuation will be incorporated in a log book maintained by the Unit Building Manager and reported to the Fire Department (via e-mail) as they occur.

d. Building Managers will notify the Fire Department in advance when fire drills are to be held. This will prevent the dispatch of fire apparatus to the scene of the fire drills (unless requested to participate).

**2-3. Reports.**

a. The FB Form 420-90-1-R-E (Fire Prevention Checklist) will be used as a monthly check-off sheet by the Building Manager (A reproducible copy of FB Form 420-90-1-R-E is provided at the back of this publication and may be reproduced on office copiers on an "as needed" basis). The Building Manager will maintain a log of inspections and will sign off for each monthly inspection. Immediately after the inspection, the Building Manager will report his findings to the Unit Building Manager. The checklist will be inserted in a clear plastic laminated cover and will be used for inspection. The Unit Building Manager shall also maintain a log book noting the following: date of inspection, building number, Building Manager's name and a column headed "completed." Any hazard not corrected will be noted in the log book. If a work order has been submitted, the date and work order number will be entered in the-log book. The logbook will be presented, upon request, to the Fire Prevention Inspector during the normal inspection tour. The Fire Inspector will follow-up on all hazards noted.

b. A quarterly memorandum will be sent to the Fire Department with the following information:

- (1) Date of Inspection.
- (2) Building Number.
- (3) Any other pertinent information.
- (4) Building Manager assigned.
- (5) Description of building, contents, telephone number and approximate number of personnel.

c. DoD Fire Hazard Report, DA Form 5382, is originated by the fire prevention inspectors. The original and one copy will be prepared when hazards are noted during a building inspection. One copy will be forwarded to the Unit Building Manager. The report enumerating corrective action taken will be the responsibility of the Unit Building Manager.

**Chapter 3  
Equipment**

**3-1. Fire Extinguishers.**

a. The number, type, size and location of fire extinguishers required in each building will be determined by the Post Fire Chief or his representative. At a minimum, a 5lb fire extinguisher shall be used in sprinkled facilities and a 10lb fire extinguisher shall be used in unsprinkled facilities. When a change in occupancy, stored material or modification of any building occurs which might indicate a need for a change in extinguisher requirements, the Building Manager will notify the Fire Department.

b. Each unit or activity is responsible for furnishing their own extinguishers. Fire extinguishers assigned to a building will be installed properly and are not to be relocated or removed from the assigned building or area without specific permission of the Post Fire Department.

c. All extinguishers that are damaged or discharged will be the unit's responsibility to have them serviced or replaced.

d. The following will be equipped with portable fire extinguishers:

- (1) All emergency vehicles (fire, military, police, ambulance, wreckers) and post engineer vehicles.
- (2) Buses.
- (3) Grease pits.
- (4) Oxyacetylene welders (Welding area will use water as the principal extinguishing agent and coolant for hot metals).
- (5) Fuel burning hot air heaters (Herman-Nelson and similar heaters).
- (6) Portable generators.
- (7) Forklifts, tugs and other power equipment operating in warehouses and hangars and in the vicinity of parked aircraft.
- (8) Field kitchen ranges.
- (9) Vehicles carrying explosives and as required by ordnance directives.

e. Vehicle and equipment operators will inspect vehicle equipment and OVM extinguishers as part of their daily duties. Extinguishers showing damage, needing repair or recharge will be returned to unit supply for recharge or exchange.

f. During repair and replacement of roofs or streets, suitable fire extinguishers will be located near asphalt and tar heating kettles and on roofs.

g. The Unit Commander is responsible for having fire extinguishers in vehicles under his jurisdiction in accordance with AR 385-55. He will ensure that extinguishers are inspected monthly.

h. All fire extinguishers and systems will be serviced in accordance with NFPA 10.

**3-2. Firefighting Equipment.**

a. Access to fire extinguishers, fire alarm boxes, and sprinkler control valves, fuse boxes, and switch panels will not be blocked.

b. A minimum space of 36 inches will be maintained around all firefighting equipment.

c. These devices must be maintained and clearly visible to all.

**3-3. Detection Devices**

a. If required, smoke detectors shall be installed and maintained in accordance with NFPA 72.

b. All trailers used by contractors on Fort Benning shall have, at a minimum, battery powered smoke detectors installed in accordance with NFPA 72.

c. Carbon monoxide systems shall be installed in all structures on Fort Benning and all annex locations serviced by natural gas, petroleum or other combustible fuel sources.

(1) Any existing structure shall have carbon monoxide detectors installed throughout the structure. A minimum of an AC plug in type carbon monoxide detector will be required.

(2) Any new/refurbished (51% or greater of the total cost of the structure) shall have a carbon monoxide system installed throughout the structure with at least two independent and reliable power supplies and meets all requirements of NFPA 720.

**Chapter 4  
Smoking Areas**

a. Smoking is not authorized in any government owned building.

b. Smoking is prohibited within 50 feet of any building on post. The responsibility for enforcement of no-smoking rules rests with all personnel.

c. Smoking in bed is forbidden.

d. Used smoking materials and matches will not be discarded or disposed of in trashcans or wastebaskets. Ashtrays or butt cans of adequate size will be provided and used in all authorized smoking areas. Butt cans shall be UL approved. Ashtrays and butt cans will be emptied outside the building prior to closing the building or the office and make certain there are no live cigarettes or ashes in the material.

e. Used smoking materials will not be discarded from vehicles.

f. Matches and lighters being carried by personnel engaged in handling volatile and flammable liquids and explosive ordnance materials will be removed and kept outside the danger area. The possession or use of "strike anywhere" matches (non-safety) is prohibited.

**Chapter 5  
Ammunition Handling and Storage**

Requirements for fire protection, firefighting facilities, fighting fires, identification of magazine, and so forth, will be in accordance with AMOR 385-224, TM 9-1300, TM 9-1300-206, TM 9-1903, and TD 11A-1-37, with all changes.

**Chapter 6  
Recreational and Service Facilities**

**6-1. Public Places.**

a. Bowling Alleys:

(1) Bowling alleys will not be waxed, polished, sanded, or varnished during operating hours.

(2) Mops, rags, waxes, and varnish containers will be removed prior to opening.

(3) Smoking in or around the pits is prohibited.

(4) Refinishing or reconditioning of pins is prohibited unless complete facilities are provided. Conditions will be in accordance with National Fire Protection Association and industry standards.

(5) The Post Fire Department will be notified at least 24 hours in advance of any refinishing of alleys.

(6) Alley cleaning or refinishing will be in accordance with National Fire Protection Association and industry standards.

(7) Only non-flammable, non-toxic fluids will be used for cleaning balls, pins and for spot cleaning alleys.

b. Theaters (including all occupancies darkened for projection of pictures).

(1) In the event of a fire in the projection booth during the time the theater is occupied, the projectionist will immediately signal for evacuation of the theater prior to attempting to extinguish the fire. In no case will attempts be made to extinguish a fire in the booth unless a second person is stationed immediately outside the booth.

(2) Prior to each performance, all exit lights, exit passage lighting, emergency house lighting, and all exit doors will be checked for proper operation. The public will not be admitted until any necessary corrections have been made. All inspections will be annotated on FB Form 420-90-1-R-E and kept on premises.

(3) Aisles and exit passages through the foyer will be kept clear of standees and obstructions.

(4) Smoking is prohibited in all theaters and auditoriums.

(5) Trash and waste material will be placed in covered metal cans to be provided for that purpose. These cans will be emptied as often as is necessary during performances, and will be emptied or removed from the building prior to closing.

(6) An inspection of the entire building will be made and recorded after the final performance, and before closing for the night.

(7) All theater personnel will be thoroughly familiar with the provisions of TM 28-410.

c. Places of Public Assembly, Clubs, Day Rooms, Mess Halls, Chapels, and so forth., are required to have a complete after closing inspection. Such inspections will be recorded in writing and kept on premises.

(1) Soiled table linen and towels will be placed in metal containers with a tight fitting lid.

(2) Laundry/dry-cleaning operations will not be conducted in the same building with other occupancies.

(3) A dry-cleaning room shall be designed in accordance with National Fire Protection Association and industry standards.

d. Paint Shops and Spray Painting Booths:

(1) Spray paint booths will be built in accordance with the NFPA Standard for Spray Finishing and Code of Federal Regulation 1910-107.

(2) Ventilating and exhaust systems shall be in accordance with the NFPA Standard for Blower and Exhaust Systems for Vapor Removal.

(3) Mechanical ventilation shall be kept in operation at all times while spraying operations are being conducted and for a sufficient time thereafter to allow vapors from drying coated articles and drying finishing material residue to be exhausted. When spray is automatically applied without an attendant constantly on duty, and where practical, when spraying under manual control, the operating control of spray apparatus should be so arranged that spray couldn't be applied unless exhaust fans are in operation.

(4) Fire extinguishers will be installed in the vicinity of spray painting operations to comply with NFPA.

(5) Paint, varnish, thinner, and like substances will be stored in paint sheds or buildings designated specifically for storage of flammables. Small quantities (one day supply) of paint and thinner will be permitted for use in shop operations when (suitably vented) metal cabinets are utilized.

(6) When regular spray or brush painting at a fixed location is in progress, the operation will be separated from other operations by non-combustible partitions. Adequate ventilation, natural or mechanical, will be provided.

(7) Steps will be taken to ensure that painters remove paint pails, buckets, and brushes from buildings at the conclusion of each day's work, and that this equipment is not stored temporarily in or under buildings. Suitable, well-ventilated steel cabinets shall be provided for storage of paint, soiled clothing and drop cloths.

e. Woodworking or Metal Working Shops:

(1) Smoking is prohibited in all shops.

(2) Woodworking Shops must be provided with suitable metal or metal lined bins or cans provide with normally closed lids or automatic closing covers.

(3) The use of wood, paper or other combustible trash containers is prohibited. At the close of the working day, all trash containers will be emptied outside the building.

(4) Electric installations located in hazardous areas will conform to pertinent requirements of the National Electrical Code.

(5) Grounding of all electric motors or electrically operated equipment will be as required by the National Electric Code.

(6) Magnesium is especially hazardous and requires a class "D" fire extinguisher. Finely divided scrap metals will be kept in metal containers with normally closed lids or automatic closing devices. Containers will be emptied at the close of the workday outside the building.

(7) Good housekeeping will be maintained in shops at all times.

(8) The use of any open flame-heating device is prohibited.

(9) Oily rags used in machine shops must be kept in self-closing metal containers, and will be emptied daily outside the building. Containers must be marked "OILY RAGS ONLY."

f. Hospitals:

(1) Hospitals will ensure that Hospital Fire Safety and Fire Prevention Standards are adhered to in accordance with the minimum requirements of this regulation, OSHA, and the National Fire Protection Association Codes.

(2) Fire Safety requirements for Hospital Laboratories will be the minimum as prescribed by the National Fire Protection Association and this regulation. This regulation is concerned primarily with protection against fire and explosion hazards created by laboratory activities in hospitals and health-related institutions, and is not intended to cover hazards resulting from the misuse of chemicals or chemical reactions which will not result in fires or explosions.

g. Child Development Centers (CDC):

This paragraph is applicable to buildings or areas for care and housing of infants or children in a public place for periods of 12 hours or less. This includes kindergarten and day schools for children less than 6 years of age.

(1) When a CDC is operated as an independent activity, the person in charge of the activity is responsible for observance and enforcement of these regulations. When the CDC is in operation in connection with a club or similar activity, the person in charge of the sponsoring activity is responsible.

(2) Location and arrangement of CDC areas:

(a) In all cases, nursery areas will be located on the ground floor, except in fire resistive buildings, or when specifically approved by the Fire Chief, on the second floor of combustible buildings protected by automatic sprinklers.

(b) CDC areas will be so arranged that all portions are visible to the attendant or attendants at all times.

(c) CDC areas will be segregated from the remainder of the building by partitions of not less than 1-hour fire resistive construction. Any communicating doors through these walls will be Class C with automatic closers.

(d) CDC areas will have a minimum of two exits, one of which must be directly to the outside of the building, and arranged so that cribs can be rolled through it without lifting or other means to pass obstructions.

(e) CDC areas will have cribs and beds in rows of not more than 2, separated by an aisle not less than 3-feet wide. Cribs and beds will be in locations having unobstructed access to the exit leading directly outside.

(3) Fire Prevention:

(a) No open flame heaters or cooking equipment will be permitted in the CDC area. Bottle warmers and other devices necessary for infant feeding will be approved, electrical type (UL, Factory Mutual or an equivalent testing organization) and unplugged after use.

(b) Smoking is prohibited throughout the CDC area.

(c) Visitors are prohibited, other than mothers at feeding time and persons on official business.

(4) Fire alarm facilities will consist of the following:

(a) An administrative telephone.

(b) A manual fire alarm box (in addition to an administrative telephone) in buildings having automatic sprinkler or fire alarm protection.

(c) A fire-warning signal consisting of flashing red lights, and operated from two manual actuating stations at locations elsewhere to the building as selected by the Fire Chief. In buildings with sprinklers, an automatic (pressure) switch will be connected to the automatic sprinkler alarm line as a third actuating station.

(5) The CDC evacuation plan will ensure the following:

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(a) That the attendants at all times know the exact number of children in the nursery, and are prepared to account for the total number in the event of an emergency evacuation.

(b) Ensure that sufficient attendants are on hand to evacuate the CDC in not more than 3 minutes.

(c) That maximum use can be made of facilities for movement of children (several children can be placed in a crib equipped with wheels and moved by one attendant).

(d) That evacuation routes are adequate for movement of the children.

(e) CDC facilities will meet the requirements of DOD 4270.1-M, NFPA 101 and CDS minimum fire standards. When conflict occurs, AR 608-10 will apply.

### 6-2. Places of Public Assembly.

a. Managers of places of public assembly and recreational facilities will establish a sound fire prevention program and will assure that employees are trained and understand their fire prevention responsibilities, fire reporting, facility evacuation procedures, and first aid fire fighting procedures.

b. Managers or assistants of places of public assembly will conduct closing inspections. Closing inspection checklist will be prepared by managers and as a minimum will include the following:

(1) All electrical kitchen equipment has been disconnected or switches 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 to continuity of after-hours maintenance are disconnected or switches placed in the OFF position.

(4) Trash receptacles are emptied and trash is placed in containers outside of building.

(5) A non-combustible container with self-closing lid will be used in restrooms for the disposing of paper towels.

(6) All aisles will maintain 36-44" of unobstructed clearance.

c. Operating personnel will be designated to check fire egress exits daily, prior to entry of patrons, to ensure that doors are unlocked and that panic-type hardware and exit lights are functioning properly.

d. An inspection by the fire department will be conducted prior to the start of any social and/or unusual event that involves the use of decorations.

e. The managers of places of public assembly in which commercial or restaurant type cooking is performed will establish and enforce the following procedures:

(1) All installed grease filters and exposed surfaces of kitchen range hoods must be cleaned daily or as often as necessary to prevent accumulation of grease. A spare set of filters is required in kitchens which are continuously operated.

(2) Kitchen range hoods and exhaust ducts must be cleaned at least every 6 months or as necessary to prevent accumulation of grease. Cleaning includes fans, roofs, louvers, exterior walls, cupolas, and so forth, and where the system exhausts to the outside.

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

(a) Date that the hood, ducts, and filters were last cleaned.

(b) Name of contractor who serviced/cleaned system

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

(d) Records will be available to the fire department upon request

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

## Chapter 7

### Exits, Exit Signs, and Fire Doors

#### 7-1. Exits.

a. NFPA Life Safety Code 101 will be adhered to in all cases.

b. All exit doors in places of public assembly will be equipped with approved panic type hardware. The activity supervisor will daily test such exit door hardware.

c. Whenever any building is occupied, all exit doors will be fully operational. No padlocks, bolts, hooks, or, other encumbrances will be used to secure these doors; in accordance with Federal Public Law 91-596, 91st Congress, S.2193 and Executive Order 11807.

d. All exit doors and screen doors will be installed in such a manner that the doors will swing with the flow of the traffic leaving the building.

e. All occupied buildings will have a minimum of two separate and distinct exits excluding windows, unless occupied by less than ten persons and the door opens directly to the outside.

f. All exits, corridors, aisles, and stairs leading to exits will be kept free and clear and maintain 36" of unobstructed clearance. Clothing and equipment will not be hung in stairwells. Corridors, aisles, and stairs will be well lighted, and lights will be turned on and left on when the building is occupied during the hours of darkness or when required by poor visibility.

#### 7-2. Exit Signs.

a. Those buildings or areas having self-illuminating exit lighting systems will have the exit lights turned on at all times when personnel are in the building. Illuminated exit signs will not be shaded, covered, or obstructed from vision in any manner. Burned-out bulbs will be replaced promptly by the building occupant. Exit light will comply with NFPA Life Safety Code 101.

b. In public buildings, any doors, passageways, or stairways which are not exits, or ways to reach exits, that are located or arranged so they might likely be mistaken for exits, will be identified by a sign, "NOT AN EXIT." (Latrines or closet doors are excluded from being identified as not being exits).

c. Signs reading "EXIT" will be placed in locations where the direction of travel to reach the nearest exit is not immediately apparent.

d. Exits used for common egress are not classified as fire exits but are used for both business and emergency; an "EXIT" sign may be posted.

e. Commanders will ensure that the provisions of subparagraph (f), above, concerning free and unobstructed egress from occupied buildings are complied with. Safety or other reasons will not be sacrificed for the purpose of securing buildings.

#### 7-3. Fire Doors.

a. Fire doors and stairwell doors will remain in the closed position unless self-closing devices equipped with fusible links have been installed. The use of wedges or obstructions to hold fire doors or stairwell doors open is prohibited. Fire doors designated to remain closed will be marked "FIRE DOOR - KEEP CLOSED."

b. Automatic self-closing fire doors in warehouses, industrial buildings, and maintenance shops will be inspected at the close of each work day by the building occupant supervisor to ensure that all fire doors are secure and closed. They will not be blocked open under any circumstances.

## Chapter 8

### Electrical

#### 8-1. Building Electric Service.

a. All electrical installations, modifications, and additions to a building electric service will be accomplished or supervised by Shaw electricians or approved electrical contractors and will meet the minimum requirements of the National Electrical Code.

b. Automatic circuit breakers, and the switches in electric control panels, are designed to prevent the wiring from overloading. Circuit breakers that are prone to trip frequently and fuses which burn out repeatedly will be reported to the Shaw Work Order Section. All circuits in control panels must be identified.

c. Fuse boxes will be posted as to the proper size fuse and will not be over-fused, jumped, or plugged.

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

e. Electric motors will be kept free of accumulation of dust, lint, and so forth. Access to electric motors will not be blocked by storage, nor will combustible material be placed within 24 inches of installed electric motors.

f. Multiple sockets (two and three-way plugs) are prohibited.

g. The removal of a light bulb to accommodate an adapter of any type for electrical appliances is prohibited.

h. Electrical switches, receptacles, circuit breaker boxes, junction boxes, and fuse boxes shall be provided with proper covers.



**8-2. Portable Lamps.**

Trouble lights will be equipped with a sturdy wire guard around the bulb and may be used except where flammable vapor or explosive dust might normally be found. Explosion proof lights and switches must be used in these areas.

**8-3. Flammable Vapors.**

In any area or process where flammable vapors are or might be present, the electrical system and equipment will be in accordance with the National Electrical Code for "hazardous areas" (area where flammable or explosive dust might be present).

**8-4. Extension Cords and Portable Wiring.**

a. Extension cords will be eliminated wherever possible through relocation of portable appliances, furniture, benches, and so forth. A DA Form 4283 (Job Order Request) shall be submitted for installation of outlets where relocation is impossible.

b. Where extension cords are deemed absolutely necessary and are to be left in place, they will not exceed nine (9) feet in length; will be free of brakes, splices, and tape; and will not be secured by nails, staples, or run through walls, windows, doorways, or under rugs or pads. Occupants must submit work order to extend electrical service.

c. An extension cord will not be smaller in wire diameter than the appliance cord it is to service.

d. A single extension cord will not service more than one fixture or appliance cord.

e. Extension cords and appliances with frayed, cracked, cut, or deteriorated insulation are prohibited. Extension cords with broken or damaged contact fixtures will be repaired or replaced immediately (Cords with the ground cut off will not be used).

f. Permission may be obtained through the Post Fire Chief for the temporary use of industrial type flexible cords for special events.

g. Surge protectors/UPS will not be plugged into each other and only one may be plugged into one outlet at a time.

**8-5. Batteries and Generators.**

a. Simultaneous recharging of more than 6 batteries shall be accomplished only in separate rooms provided with forced ventilation to the outside atmosphere.

b. Battery rooms will not be used for general storage. Open flame, smoking, and spark-producing devices will not be permitted. Benches, racks, and so forth, will be acid resistant.

c. All electrical appurtenances or equipment will be approved for hazardous locations.

**8-6. Appliances.**

a. Portable electric equipment will be unplugged when not actually in use.

b. Gas or electrical appliances for food preparation are not authorized in BOQS, with the exception of microwaves. Where kitchen facilities are provided in BOQS, food preparation may be accomplished within the kitchen area.

c. Only one appliance rated at 500 watts or greater can be plugged into one outlet at any given time.

**8-7. Electrical Grounding and Static Electricity Protection.**

a. Grounding of electrical circuits and protection against static electricity will be in accordance with the National Electrical Code. The following portable equipment or appliances will be grounded:

(1) Portable electric powered tools, except double insulated.

(2) All portable electric appliances in wet or damp locations.

(3) The frames of electric ranges, electric washers and dryers.

(4) Electrical, coin-operated vending machines.

(5) All above ground Class I and II flammable liquid fixed tanks will be permanently grounded.

(6) Barrels, drums and portable containers used to dispense Class I and II flammable liquids will be grounded.

(7) Dry cleaning utilities will be bonded and grounded.

(8) Grounding of refueling tank trucks will be accomplished as follows:

(a) Use a Y-cable permanently attached to the refueler and carried on a cable reel.

(b) Connect the Y-cable to the aircraft, using axle of the landing gear or other unpainted metal part, except propeller or radio antenna. Refueler and aircraft are now bonded together and grounded.

(c) Connect bonding wire from nozzle to aircraft before opening the first filler-cap for over-wing fueling (not necessary for under-wing or center-point fueling).

(d) Refueling; vehicles: Bond tanker to vehicle.

(e) Reverse the procedures to disconnect after replacing last filler cap.

(f) Approved grounding electrodes will be indicated by a painted 18-inch red circle. Tests of these electrodes will be accomplished in accordance with FM 10-68.

(9) Parked aircraft and aircraft inside shops and hangers will be grounded.

(10) Class I and II flammable liquid fuel tanks undergoing maintenance, steam purging and so forth, will be grounded.

(11) Radio and television sets which utilize masts for antennas will be installed in accordance with the National Electrical Code and AR 420-9. Masks must be fastened securely, grounded, and have a lightning arrestor on the lead-in cable nearest the point it enters the building.

**Chapter 9****Storage and Handling Procedures for Flammable/Non-Flammable Liquids/Gases****9-1. Flammable Liquids, POL Products, Paint and Thinners, Flammable and Non-Flammable Gases.**

The minimum safety standards as established by this directive and the following ARs, TMs, and TBs will be adhered to strictly: AR 700-68, AR 385-10, TM 10-1101, TM 743-200, TB Engr 39 and DA Engineer Manual for Emergency Construction, N.F.C. 30-11 and 30-12.

a. Flammable Liquid Classification:

(1) Class I liquids have a flash point below 100° F (37.8° C), such as gasoline, ether, benzene, and so forth.

(2) Class II liquids have a flash point at or above 100 F, (37.8° C), and below 140° F, such as alcohol, lacquer, rubber cement, and so forth.

(3) Class III liquids have a flash point at or above 140° F, (60° C), and below 200° F (93.4° C), such as fuel oil, cleaning solvents, and so forth.

b. Use of Class I, II, III Flammable Liquids:

(1) Activities which are authorized to use Class I or II flammable liquids inside buildings will be restricted to the following:

(a) Not more than 1 gallon of Class I liquid in an approved Safety Can which must be properly color-coded.

(b) Not more than 5 gallons of Class II liquid in tightly closed metal containers which must be properly color-coded.

(2) The use of Class I or II flammable liquids for any cleaning purpose is prohibited.

(3) The use of Class III liquids for cleaning purposes will be prohibited except as follows:

(a) In approved post Dry-Cleaning establishments.

(b) In maintenance facilities when used in approved solvent cleaning tanks; tanks must be equipped with fusible-link controlled automatic self-closing lid.

(4) Open containers of flammable liquids are prohibited.

(5) Any containers that have held Class I or II liquids will not be brought into any occupied building unless they have been purged and deemed vapor free.

(6) Motor pool buildings and maintenance shops that require daily use of warm storage of Class III liquids may keep on hand a maximum of one 55-gallon drum of each required type. All of these drums will be isolated within the confines of a separate fire-resistant POL Room. Each 55-gallon drum that is used as a dispensing unit will be equipped with an automatic self-closing valve. Drip pans will be provided under each drum. Spilled liquid will be cleaned up often enough to preclude pooling of the liquid in the pan. These requirements are for inside and outside storage.

(7) Bulk flammable liquids and/or explosives will not be transported in the same compartment with personnel.

c. Spillage and Leakage of Flammable Liquids. Any spillage or leakage of gasoline or other flammable liquid will be cleaned up and neutralized, and the cause of spillage and leakage will be corrected immediately. Any fuel spill will be reported to the Post Fire Department immediately.

d. Disposal of Class I, II, or III Flammable Liquids. Flammable liquids will not be poured into sewers, water drains, or on the ground. Such waste products will be disposed of in sealed containers and

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marked as to contents, such as contaminated gasoline, and so forth. Disposal direction may be obtained from the DPW Environmental Officer, 545-4766.

### 9-2. Fueling and Defueling.

Fueling and de-fueling will be accomplished by the following:

a. The fueling or de-fueling of vehicles, forklifts, aircraft, and so forth, inside buildings is prohibited. When fueling or de-fueling, the vehicles will be at least 25 feet from any building.

b. Plastic or rubber hose will not be used as a fuel supply line from gravity flow tanks, except on portable field equipment employed in the field.

### 9-3. Storage of Flammable Liquids.

a. Storage of Class I, II, or III flammable liquids will be as directed in TM 10-1101.

b. Storage of small amounts of Class I, and II flammable liquids that may be required by units or detachments will be as follows:

(1) Storage buildings will not be closer than 50 feet to any occupied building, equipment or other material.

(2) Storage building will be painted yellow and the contents stenciled in black on the outside. Minimum size of letters is 2 7/8 inches.

(3) "NO SMOKING OR OPEN FLAME WITHIN 50 FEET OF THIS BUILDING" signs will be posted; color and size as prescribed by AR 385-10.

(4) All containers will be OSHA or UL approved and labeled according to NFPA.

(5) Grass, weeds, and so forth, will be cut and kept under control at all times for a distance of at least 50 feet around storage areas.

c. Above ground, Class I flammable liquids storage tanks will be adequately diked to isolate the hazardous area and will be grounded and bonded during all servicing operations. Tanks will be equipped with suitable pumps. Gravity flow or siphoning will not be permitted.

d. Highly flammable and dangerous supplies such as POL products, ether, alcohol, compressed gas, paints and thinner will be segregated from each other as well as from other types of supplies.

e. Petroleum products, flammable gases, chemicals, paints and thinners, and explosives will not be stored in any area, facility, building, or portion of a building prior to inspection and approval of the Post Fire Chief or his authorized representative. If approval is granted, such hazardous materials will be isolated, protected from damage, and plainly marked and identified as to contents and precautionary measures necessary. Hazardous items must be protected from any source of mechanical damage, be isolated from damage, be marked plainly, and must be isolated from one another, and will receive frequent inspections by supervisory personnel familiar with the existing hazards.

f. Where the occupancy of any building requires storage of flammables such as type cleaner, ditto fluid, and laboratory reagents and small quantities for frequent use, the total quantity will be kept to the minimum consistent with the time required for normal supply. The portion not in desk or table containers will be stored in the original container (if capable of being resealed) in a metal cabinet ventilated to the outside if practical; cabinet will be posted "NO SMOKING OR OPEN FLAMES". Only one container for each type of material may be opened at a time. Containers will not exceed 8 ounces of volume.

g. Locations subject to flammable vapors: For the purpose of this regulation, the following locations will be considered subject to flammable vapors:

(1) Buildings in which flammable liquids are used in processes which produce flammable vapors.

(2) Buildings in which aircraft are stored or repaired.

(3) Buildings in which more than 30 gallons of flammable liquids are stored.

(4) Woodworking shops, motor vehicle repair shops, garages, paint shops, paint-spray shops, dry cleaning plants, battery shops, and other locations where abnormal fire or explosion hazards exist.

h. The presence of open-flame devices, heating stoves, electrical or mechanical tools, and apparatus that could cause sparks will not be permitted in locations listed above.

i. Electrical fixtures, switches, motors, wiring devices, extension cords, fittings portable lamps, control devices, flash-lights and all equipment or signaling devices when used in locations subject to flammable vapors will be of the type approved by the Underwriter's Laboratory for use in hazardous locations and explosive proof.

### 9-4. Storage of Flammable and Non-Flammable Gases.

a. Detailed safety instruction pertaining to gas cylinders are contained in AR 700-68 and TB Engr 39 and the National Fire Codes.

b. Cylinders may be stored in open or closed storage but will be protected from weather and any source of heat. Storage areas must be a minimum of 100 feet from any building or other combustible storage.

c. Flammable and non-flammable gases must be stored at least 30 feet apart. Cylinders must be painted and labeled as required in current directives. All gas cylinders will be provided with valve safety caps. Outside storage will be used when practical but where inside storage is authorized, gases will be separated by a 1 hour fire resistant partition, a separate room or compartment that has no open flame for heating, equipped with explosion-proof electrical fixtures, and well ventilated.

d. Cylinders may be stored upright or on their sides, EXCEPT ACETYLENE CYLINDERS. These must be stored and used with the valve end UP at all times.

e. Oxygen cylinders stored or used in buildings must be separated by not less than 50 feet from any areas used for or containing flammable gases.

f. Cylinders not in actual use will be stored away from highly flammable materials especially oil, grease or any substance likely to cause or accelerate fire.

g. Cylinders will be secured by a chain while in storage to prevent them from being knocked or pulled over.

h. Flammable Gas Cylinders with leaky valves or fittings will be reported to 911.

### 9-5. Storage of Powered Lawn Equipment.

a. Lawn mowers, portable motors, and powered garden tools with internal combustion engines will be stored inside only in those areas approved and designated that specific purpose.

b. General considerations are a well-ventilated area, metal drip pan under engine fuel tank and area posted for no smoking.

c. If the unit has no approved storage facility, the mowers are secured with chain and lock to the unit paint storage locker with the mower protected from the elements by a canvas or metal cover. During the non-mowing season, fuel is drained and the major activity provides proper storage of unit procured power lawn mowers.

## Chapter 10

### Welding and Flame Cutting

#### 10-1. Hot Work Permits.

a. DA Form 5383-R (Hot Work Permit) will be issued for open flame operations, welding/cutting operations, or other hazardous potential fire actions. Hot work permits are required on an annual basis for permanent shops engaged in open flame operations once the Fire Chief or his authorized representative has approved (in writing) the shop, or construction site. Hot Work Permits may be obtained by contacting the Fire Prevention Office.

b. Welding activities must be separated from the other activities by approved barriers. Welding will not be permitted in any area where explosive vapors may accumulate.

c. During welding operations, oxygen and acetylene cylinders will be located far enough away from the operator's position to preclude undue danger from radiation, sparks, slag, or the misdirection of the torch flame.

d. All flammable gas cylinders must be secured with a chain when in storage to prevent them from being accidentally knocked or pulled over.

e. Cylinder valves must be closed when apparatus is not actually in use by the welder, and the regulator and hose must be drained. Both gauges will read "O" when this is accomplished.

f. Cylinders with faulty valves or fittings shall be removed from the building away from any source of ignition and slowly drained of any gas.

g. Welding shops must have at least 2 fire extinguishers installed in the welding area. At least one 10lb dry chemical type extinguisher and one water type extinguisher of at least 2 1/2 gallon capacity or an additional 10lb dry chemical extinguisher. Extinguishers must be checked by the operator daily (visible check) and must be within 6' of the operation.



h. All pertinent Safety regulations pertaining to welding operations will be strictly adhered to. Violators will have their welding permit suspended and appropriate disciplinary action taken.

i. A fire watch will be required for all hot-work operations for a minimum of 30 minutes.

### 10-2. Open Fires and Controlled Burning.

Open fires or controlled burning is prohibited unless specifically approved by the Post Fire Chief and or Chief of Forestry. The Fire Department will be notified in advance of any controlled or scheduled burning.

## Chapter 11 Equipment

### 11-1. Heating Equipment.

a. Only qualified DPW Furnace Repairmen are permitted to install and perform maintenance on building heating equipment and systems. All maintenance and new installations of heating equipment will be in accordance with current applicable directives.

b. Furnaces and other open flame or hot air heating equipment will not be installed or used in any building without the prior approval of the Fire Chief.

c. Combustibles will not be placed in direct contact with steam radiators, and un-insulated steam pipes. Steam pipe insulation will be kept in good repair.

### 11-2. Maintenance Equipment.

Plumber pots, blow-torches, and similar heating tools necessary for the performance of building maintenance by DPW repairmen and approved contractors may be used provided all fire prevention safety practices are complied with during such maintenance, the supervisor in charge of the work crew will be responsible for obtaining a hot work permit.

### 11-3. Cooking Equipment.

a. Field mess ranges or gasoline operated devices will not be refueled inside or within 30 feet of tents or buildings.

b. All 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.

c. Range exhaust hoods and filters, exhaust fans and related equipment will be cleaned regularly to avoid accumulation of grease. This is a unit responsibility.

d. Exhaust fans and electric lighting must be a type approved for hazardous locations, i.e., vapor tight.

e. Gasoline camp stoves, field ranges, and lanterns will not be used inside of buildings.

f. The use of portable charcoal boilers inside buildings or under roofs is prohibited.

## Chapter 12

### Vehicle Operation, Storage, Servicing, and Maintenance

#### 12-1. Vehicle Operation.

a. Privately owned automobiles, trucks, boats, trailers, aircraft, and so forth., will not be parked or stored in government buildings or structures with the exception of those buildings specifically designated for that purpose (Morale Support Activity repair and rebuild shops). Government vehicles will not be parked or stored in buildings or structures, other than those specifically designated as motor pools, vehicle warm storage buildings, or maintenance garages. Government vehicles parked indoors will have a minimum clearance of 2 feet around each vehicle. Vehicles will be parked in such a manner as to permit rapid evacuation in case of fire.

b. No vehicle, military or civilian, will be parked closer than 15 feet from a building, except in an authorized parking lot, nor closer than 20 feet to a fire hydrant.

c. Gasoline powered vehicles and equipment will not be operated in warehouses or other hazardous areas unless equipped with approved spark arresters.

d. All vehicle batteries will be disconnected prior to major motor repairs or repair of the vehicle fuel system.

e. Bulk flammable liquids and/or explosive materials will not be transported in the same compartment with personnel.

#### 12-2. Vehicle Storage.

Parking and storage areas for petroleum fuel trucks, tanks, and trailers will not be established without the prior approval of the Fire Chief. Approved areas will not be closer than 100 feet to any building or structure, aircraft parking area, stored material or stream, unless the area is provided with an adequate protection dike or ditch. Petroleum fuel trucks and trailers will be parked at least 25 feet apart.

#### 12-3. Vehicle Servicing.

a. Vehicle refueling or de-fueling will be accomplished only in outdoor areas. When vehicle fuel tanks are located above or adjacent to motors or heat units, refueling will not be accomplished until after adequate time lapse or cooling off period. The operator will check to prevent igniting of vapors from fuel tanks or spillage. Motors on all vehicles being serviced will be shut down during all refueling operations. Appropriate signs will be posted.

b. The driver will remain with the refueler vehicle while it is being filled or discharged.

#### 12-4. Maintenance Activities.

a. All vehicles, POL trucks and tank trailers, prior to maintenance involving "hot work"; i.e., welding, grinding, and so forth, on the vehicle fuel tanks or tanks which have contained flammable liquids will have the tanks drained outside of the building, purged with steam and flushed with water. The cleaning operation outlined above will be performed long enough to ensure that no explosive mixture of flammable liquid vapor is present in the tank as determined by a combustible gas indicator. Work may proceed only after a test indicates that no combustible mixture remains.

b. Welding or other hot work on tanks that have contained flammable liquids will be accomplished by competent, experienced workmen.

c. Fuel tanks will be connected to a low resistance static ground less than 25 ohms resistance, while, undergoing; maintenance.

d. POL trucks and tank trailers entering authorized shops for service repairs other than to fuel or cargo tanks and requiring less than 8 hours total time in the building will have fuel tanks filled to 95% capacity, allowing space for normal expansion. If the service or maintenance requires more than 8 hours shop time, or is such that it will render the vehicle immobile (removal of wheels, and so forth), the Post Fire Department will be notified.

e. Engine packs being tested shall be set up on approved stands and have an approved fuel source. They shall be a minimum of 50 feet from a building or structure or located in an approved area. At least one 15-pound CO<sub>2</sub> or 10-pound dry chemical fire extinguisher will be provided on standby.

f. Used or contaminated oil, fuel, solvent, or other POL products will be stored in the POL Area in airtight containers.

## Chapter 13

### Decorations, Materials and Devices

#### 13-1. Decorations.

a. Drapes, curtains, and similar materials will be hung or installed in such a manner as to preclude the possibility, of their coming in contact with any heat surface; i.e. heating ducts, steam pipes, ranges, ovens, and so forth. Drapes and curtains installed in places of public assembly buildings, BOQS, Guest Houses, and troop billets, will be of non-combustible material or will be given an effective flame treatment prior to their installation and each time they are cleaned or washed.

b. Holiday or festive decorations such as streamers, bunting, cotton, and other items of ornamentation will be effectively flame proofed prior to their installation in any building or structure. Corn stalks, hay and dried vegetation will not be used as an interior decoration.

c. Evergreen branches will not be used as interior decoration.

d. Christmas trees (natural) may be installed subject to the following requirements:

(1) The tree is freshly cut.

(2) Immediately prior to installing the tree indoors, re-cut the butt end at least 2". Brace the tree in a sturdy, well-balanced container or stand.

(3) Fill the container with water. Replenish the water in the container daily.

(4) Flammable tree decorations will not be used.

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(5) Only Underwriter's Laboratories listed electric tree lights will be used. Light cords must have sound insulation and be free of splices.

(6) Trees must not be placed near a source of heat or flame and not in any location that would obstruct doors, exits, or aisles.

(7) The tree must be disposed of when the needles become dry and start to fall profusely.

(8) Electric lights, wiring, and so forth, will not be placed on aluminum or metallic Christmas trees.

(9) Do not hang any decorations from sprinkler heads, sprinkler pipes or electrical conduit.

### 13-2. Devices.

a. The use of kerosene or gasoline lamps or lanterns indoors is prohibited.

b. The use of lighted candles or other open flame devices in buildings is prohibited except during Chapel services.

### 13-3. Holiday Fire Prevention Guidelines.

a. Check tree lighting sets, electric candles and similar holiday lighting equipment as well as extension cords for frayed wires, loose connections and broken sockets before decoration begins.

b. Be sure the fuse on the circuit-serving tree and other lighting is not over 15 amperes. Cord sets with a fuse in the plug bearing a UL label are available and recommended.

c. For outdoor lighting use only sets listed for outdoor use by Underwriters Laboratories. If extensive holiday lighting is planned, call in a competent electrician to make sure safety rules and regulations are followed.

d. Turn off all tree lights and other indoor holiday lighting before retiring or leaving the house or building.

## Chapter 14

### Building Maintenance, Modification, Placement and Materials

#### 14-1. Building Maintenance.

a. Alterations, additions, deletions, or repair of installed electrical circuits and fire alarm circuits will not be permitted by persons other than engineer electricians or approved contractors.

b. Alterations, additions, deletions or tampering with installed sprinkler system plumbing or controls will not be permitted by persons other than appointed Shaw sprinkler system service personnel, the Fire Department or approved contractors. No fire protection system shall be disabled without prior notification to the fire department in writing.

#### 14-2. Building Modification.

a. All requests on DA Form 4283 for modification to buildings shall be routed through the Fire Chiefs Office for approval prior to being submitted to the work order section (telephone 545-2484/82 for office location).

b. Alterations and additions to bins, decking, or shelving will not be accomplished in sprinkled buildings without written approval of the Fire Chief and DPW on DA Form 4283 (Facilities Engineering Work Request).

c. Structural alterations or additions (walls, partitions, enclosures, paneling, and so forth) will not be accomplished without written approval of Fire Chief and DPW on DA Form 4283. Such structured additions will be in keeping with the general fire classification of buildings.

d. Approved self-help painting projects may be accomplished provided the following requirements are met:

(1) Maintain good ventilation.

(2) Enforce "NO SMOKING" in area.

(3) At the end of each day, remove all soiled rags, empty paint cans and trash from the building. Paint and flammable liquid cans will be tightly resealed and removed to the paint shed. Drop cloths will be spread out to air, removed from the building or stored in a metal container.

#### 14-3. Roofing.

a. Tar pots will not be operated within 25 feet of any structure and will be thermostatically controlled to operate well below the flashpoint of the material being heated.

b. A 10 lb fire extinguishers will be placed near the tar pot and in the immediate area where the tar is being applied.

c. In cases where it is necessary for tar pots to be unattended while heating is in progress (i.e. during winter months), the unit shall be a minimum of 50 feet from any structure, vehicle, or any other obstruction and have all wheels chocked.

## Chapter 15

### Warehousing, Storage, Housekeeping, Trash Disposal

#### 15-1. Storage.

a. Storage of all supplies other than ammunition, explosives and POL products, will be in accordance with the provisions of this regulation, TM 743-200, and TM 743-200-1. (National Fire Protection Association Codes will prevail).

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

c. Materials will not be stacked closer than 18 inches to light bulbs, ceiling lines, rafters, or overhead building structural members.

d. Clearances between the top of stored materials and sprinkler heads will be at least 19 inches when the stack does not exceed 15-feet in height.

e. The airspace between sprinkler heads and the top of the stack will be increased to 36 inches when the height of the stack exceeds 15-feet.

f. Working supplies of combustible packing materials such as excelsior, straw, sawdust, and so forth., will be limited to a 1-day's supply and stored in all metal or metal-lined bins with self-closing metal or metal-lined lids equipped with fusible links.

g. The storage of materials under stairs or fire escapes is prohibited.

#### 15-2. Emergency Procedures.

a. Routes to exits and stairways, and areas around firefighting equipment will be kept clear from any obstructions.

b. Lanes leading to firefighting equipment, electric panel boards, and electric appliances will be plainly marked.

c. Storage is prohibited within 36 inches of space heaters or other heating equipment.

d. No storage of any type is permitted in:

(1) Attics or above false ceilings.

(2) Furnace, boiler rooms or mechanical rooms.

(3) Battery-charging rooms.

(4) Stairways or exit-ways.

(5) Pump houses.

(6) Mechanical or motor rooms.

(7) Sprinkler control rooms.

e. Fire lanes shall meet the following specifications:

(1) Fire Lanes for warehouses will be established every 30 feet and will be painted in accordance with AR 385-10.

(2) Fire lanes will be a minimum of 20-feet wide.

#### 15-3. Housekeeping.

a. The outside of buildings will be kept free of accumulation of lumber, trash, weeds, and dried vegetation a minimum of 10 feet from any building.

b. The interior of all buildings will be kept clean, neat, and free of accumulations of trash, lint, and debris.

c. Floor sweeping compounds will comply with Federal Specification P-2-863a, Type II. Under this specification, compounds capable of flash at ordinary temperatures after prolonged heating are not acceptable. Issue and use of spirit type cleaning solvent will be in full compliance with TM 5-609, Custodial Services.

d. Brooms and mops will be stored in racks with the broom or mop end down, positioned so that each is free of contact with any other materials, and air circulation on all sides is unobstructed. Racks should be placed outside the building. If the racks are placed in closets, adequate ventilation of the space will be provided. Dust cloths, steel wool, felt buffing pads, and similar supplies will be kept in metal containers with close fitting lids.

e. Clean rags will be kept in covered metal containers.

f. Oily rags must be kept in metal containers provided with metal lids and, if not picked up for disposal by the end of the work day, rags and waste material will be removed from the building.

g. Oily or greasy clothing and painter's work clothing will be kept in all-metal, ventilated lockers.

h. Walls, ceilings, floors, and structural members adjacent to cooking equipment will be cleaned frequently to avoid any

accumulation of grease, lint, and so forth. Exhaust hoods and filters will be cleaned as often as necessary to avoid the accumulation of grease.

i. Non-combustible containers will be provided and used for the collection of all waste and trash. All trash will be removed from buildings at the end of the workday.

j. Heating of paste wax is strictly prohibited.

## **Chapter 16**

### **Family Quarters, BOQ and Transient Billets**

#### **16-1. Requirements.**

a. Family housing, BOQ, BEQ, and transient billet occupants are required to maintain assigned quarters in a fire safe condition at all times.

b. Occupants are reminded that they can be held monetarily liable for financial loss to the United States Government where fire damage is determined to be caused by negligence or willful misconduct of an individual.

c. A fire prevention kit will be issued to each newly assigned family. It includes a telephone fire reporting label and other available fire prevention material.

d. Barbecue grills will not be used indoors, on porches, in garages, or carports.

e. Smoking in bed is prohibited.

f. Cooking in dormitories and transient billets is prohibited except where authorized cooking facilities have been provided.

g. The storage of gasoline or other flammable liquids in all living quarters is prohibited.

h. Barbecue grills or open flame devices will be at least 25 feet from any building and not under any overhead structures (carports, and so forth.) while in use. Precaution will be taken to prevent a fire from starting. Grills will not be left unattended until fire or coals are extinguished or removed and properly disposed of.

i. Family quarters will be inspected by the Fire Department only upon the request of the occupants, or the quarters are being used as a day care facility, in which case written approval from the Fire Prevention Division shall be necessary.

j. Gun powder used for reloading ammunition will be limited to 10 pounds of smokeless power and 1 pound of black power.

k. Per family housing provisions, installed hard-wired smoke detectors and automatic sprinkler system in certain Federal housing units. When installed and where more than one smoke detector is required, they will be so arranged that the operation of any smoke detector will cause the alarm sounding device in all smoke detectors within the unit to sound.

## **Chapter 17**

### **Fire Safety Education Training**

#### **17-1. Fire Safety Education Training.**

Each organization that is permanently assigned to the installation, or is a long term tenant, is responsible for conducting one (1) fire exit drill each 12 months (or as often as their command guidance requires). Exit drills must be coordinated with the Fire Prevention Division, DES, at 545-9235 or by email. Fire Prevention personnel will provide guidance and assistance. If Fire Prevention work schedules allow, an inspector will attend as an observer. All exit drills must be documented and maintained in the building manager file for review by Fire Prevention personnel. When exit drills have been completed Fire Prevention will be notified.

#### **17-2. Fire Extinguisher Identification and Usage.**

Building Managers will conduct or arrange for Fire Safety training classes to be conducted for all personnel within their organization a minimum of once each fiscal year. Building Managers will coordinate with the Fire Prevention unit for topics, materials, training aids, canned courses and guidance. Training shall include fire extinguisher types and use on types of fires. On a first come first served basis, Fire Prevention Inspectors will conduct training classes two (2) times a month, or as their work schedule allows. Training class documentation must be maintained in the Building Manager files and accessible to authorities for audit purposes.

## MCoE Regulation 420-90

### Appendix A References

#### Section I Required Publications

AR 335-15  
Management Information Control System

AR 385-10  
The Army Safety Program

AR 420-1  
Army Facilities Management

AR 700-68  
Storage and Handling of Compressed Gases and Gas Cylinders  
(DSAR 4145.25/NAVSUPINST 4440.128B/MCO 10330.2B/  
AFR 67-12)

DA PAM 385-10  
Army Safety Program

DA PAM 385-64  
Ammunition and Explosives Safety Standards

TM 5-315  
Firefighting and Rescue Procedures in Theaters of Operations

TM 5-609  
Military Custodial Services Manual (NAVY NAVFAC M00125; AFM 91-2)  
@ [http://www.wbdg.org/ccb/ARMYCOE/COETM/tm\\_5\\_609.pdf](http://www.wbdg.org/ccb/ARMYCOE/COETM/tm_5_609.pdf)

OSHA Directives  
@ [www.osha.gov](http://www.osha.gov)

TM 5-840-2  
Storage Depots

National Fire Codes  
@ [www.nfpa.org/codesonline](http://www.nfpa.org/codesonline)

Fire Protection Handbook, 20th Edition

NFPA 101 Life Safety Code  
@ [www.nfpa.org/codesonline](http://www.nfpa.org/codesonline)

National Fire Protection Association Standards  
@ [www.nfpa.org](http://www.nfpa.org)

#### Section II Related Publications

National Electrical Code  
NFPA 70

OSHA 1910.120 (Hazardous Material)  
@ [www.osha.gov](http://www.osha.gov)

Unified Facilities Criteria 3-600-01  
Fire Protection Engineering for Facilities

#### Section III Prescribed Forms

FB Form 420-90-1 R-E  
Monthly Fire Prevention Checklist (prescribed in  
paragraphs 1-4 c, 2-3 a, 6-1b (2))

### Section IV Referenced Forms

DA Form 4283, Facilities Engineering Work Request

DA Form 4283, Job Order Request

DA Form 5382, Fire Hazard Report

DA Form 5383, Hot Work Permit

### Glossary

#### Section I Abbreviations

#### Section II Terms

Approved  
Meets the requirements of the Post Fire Chief, Underwriter's  
Laboratory, or nationally recognized fire protection authorities

Area Building Manager  
Responsible for organization's fire safety

Attended  
Refers primarily to the use of heating devices and fires when under  
ready, constant, or frequent periodic observation by an alert,  
responsible individual.

Bridge  
To span, cover or protect fire hose from damage by vehicle or foot  
traffic.

Combustible  
Susceptible to burning

Corrective Action  
Action necessary to remove a possible cause of fire

Fire Area  
An area enclosed by the firewalls and exterior walls without  
consideration of other walls and partitions; in open storage, an area  
surrounded by firebreaks or lanes

Fire Prevention  
Measures directed toward avoiding the inception of fire

Fire Protection  
Measures relating to the prevention, detection and extinguishment of  
fire

Building Manager  
Responsible for building's fire safety

Flammable  
Easily ignitable and susceptible to burning with unusual rapidity

Non-combustible  
Not susceptible to burning

Non-flammable  
Without flammable characteristics

Spontaneous Ignition  
The bursting into flame of a substance by the heat produced through  
chemical action of its own constituents.

## MONTHLY FIRE PREVENTION CHECKLIST

For use of this form, see MCoE Regulation 420-90; the proponent is the MCoE Safety Office

Unit:	Date:		
	Yes	No	NA
1. Has combustible trash or rubbish been removed from building and disposed of in non-combustible container?			
2. Is gasoline, oil-based paint, or combustible and flammable materials stored at least 50 feet away from building?			
3. Have all oily rags and flammables have been removed from building and are stored properly?			
4. Are all doors, fire escapes and other exits easily accessible, unlocked and marked during occupancy?			
5. Are furnaces and electrical rooms free of all storage materials?			
6. Are all emergency exit lights working properly?			
7. Are approved electrical adapters and surge protectors being used in building?			
8. Exposed electrical wiring is free of splices.			
9. Is each appliance that draws more than 500 watts connected to one electrical outlet?			
10. Are coffee pots and other small appliances disconnected when not in use?			
11. Are waste baskets free of smoking materials?			
12. Are butt cans conveniently located throughout the smoking area?			

## MONTHLY FIRE PREVENTION CHECKLIST

Unit:	Date:		
	Yes	No	NA
13. Are no smoking signs posted in required areas?			
14. Are E911 emergency stickers affixed to telephones throughout the building?			
15. Are personnel properly instructed in care and use of fire extinguishers?			
16. Are fire plans posted in prominent places and easily accessible to all personnel?			
17. Are all personnel familiar with the fire plan as posted? (Documented by sign-off sheet)			
18. Is the fire plan adequate to cover all requirements?			
19. If required, are provisions made for fireguards in the area?			
20. Was the Fire Alarm system heard throughout the building?			
21. Are Fire Drills being coordinated with the Fire Prevention prior to the time and date to be conducted?			
22. Was the Fire Alarm system heard throughout the building?			
23. Was change of Fire Marshall reported to the Fire Prevention Office?			
Inspector:	Signature:		



**FOR THE COMMANDER:**

**TERRY L. SELLERS**  
Colonel, Infantry  
Chief of Staff

  
**JAMES E. BRINSON**  
Director of Human Resources

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