

Department of the Army
US Army Garrison, Fort Belvoir
9820 Flagler Road
Fort Belvoir, Virginia 22060-5928
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*FB Regulation 420-1

Directorate of Emergency Services Installation Fire Regulation

Summary. This regulation prescribes the fire code for Fort Belvoir.

Applicability. This regulation applies to all elements of Fort Belvoir, including tenants and contractor personnel.

Supplementation. Supplementation of this regulation is prohibited without prior approval from the US Army Garrison, Director, Directorate of Emergency Services, 6080 Abbott Road, Bldg. 2124, Fort Belvoir, Virginia 22060-5929.

Suggested Improvements. The proponent of this regulation is the Directorate of Emergency Services (DES), Fire & Emergency Services (FES). Users are invited to send comments and suggested improvements on DA Form 2028, (Recommended Changes of Publications and Blank forms) directly to US Army Garrison, Director, Directorate of Emergency Services, 6080 Abbott Road, Bldg. 2124, Fort Belvoir, Virginia 22060-5929.

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*This regulation supersedes Fort Belvoir Regulation 525-1, dated 30 December 2011.

Chapter 1

Introduction

1-1. Purpose and Scope

- a. This regulation sets forth and defines the policies and responsibilities for fire prevention and protection as a facility engineering function. It prescribes the means of implementation, with the objective of eliminating the causes of fire and minimizing the possibility of loss of life and property by fire. It prescribes current Occupational Safety and Health Administration (OSHA), National Fire Protection (NFPA), Department of Defense (DOD) and Army policies, regulations, and standards for fire protection for this installation under Department of the Army jurisdiction. It defines responsibility for an effective and sound fire prevention and protection program. This fire regulation applies to all commands, concessionaires, tenants, contractors, family members, and other activities/personnel located within the confines of Fort Belvoir, Davison Army Airfield, Belvoir North, Rivanna Station, and any sub-installation that is owned and managed by Fort Belvoir whereas known as Fort Belvoir.
- b. Supplementation: Changes to this regulation are prohibited without prior approval from the Fort Belvoir Fire Chief or his/her designee.
- c. Supplementation: Construction related material can be found in the Construction and Acceptance Testing document on our FBFES website.
<https://home.army.mil/belvoir/index.php/about/Garrison/DES/fire-emergency-services>.
- d. Suggested Improvements: The proponent agency of the regulation is the DES, Fire & Emergency Services (FES) Fort Belvoir.

1-2. References

References, related publications, prescribed and referenced forms are listed on page 35 of this regulation.

Chapter 2 Responsibilities

2-1. Installation Fire Chief:

- a. Assume the Fire and Emergency Services responsibilities as set forth by AR 420-1, Chapter 25.
- b. Develop, publish, and implement installation fire prevention and public education regulations with the approval of the Installation Commander.
- c. Provide for the protection, welfare and safety of the installation community. This includes first responders to emergencies, as well as those functions that plan responses, educate the community, and disseminate public safety related information.
- d. Execute, maintain, and enforce an effective FES Program.
- e. Technically develop and support the fire protection/prevention program.
- f. Develop emergency service priority for returning out of service fire protection equipment and systems back into serviceable conditions.
- g. Responsible for implementing an annual installation organizational Fire Evacuation Coordinator training program for Fort Belvoir.
- h. Resolve hazardous conditions of a peculiar nature, for which criteria has not been established or published. Fire Protection Specialist (FPS) and Shift Commanders are the fire code officials, as designee(s) for the Installation Fire Chief. They have the authority to impound unauthorized and/or unsafe equipment or materials of any nature. This may require discontinuance of all extremely hazardous operations/procedures if precautionary measures are not in compliance with existing directives, or if conditions exist that jeopardize life and/or property.
- i. Ensure that periodic fire prevention inspections of buildings, structures, and facilities are conducted.
- j. Support all technical investigations of any fire.
- k. Shall ensure repeated or uncorrected hazards noted during follow-up or scheduled inspections are channeled through DES to the Commander of the Major Subordinate Command (MSC) of the applicable organization or activity.

- I. Ensure that a fire prevention program is included in the mandatory self-help orientation program and newcomers briefing.

2-2. Commanders / Directors:

- a. Appoint in writing a Fire Evacuation Coordinator and assistants (as required). These designated employees shall be responsible for conducting a comprehensive fire prevention program for their organization. Commanders at all levels accept responsibility for their fire safety programs in their respective control areas.
- b. Monitor and ensure timely response and corrective action on all violations noted from the fire prevention inspection.
- c. Maintain a current copy of this regulation and UFC 3-600-01 on file at all times to ensure that compliance is maintained.
- d. Ensure that the assigned Fire Evacuation Coordinator and assistants attend the mandatory Fire Evacuation Coordinator training annually.
- e. Develop an evacuation plan to be reviewed and approved by the CRRB. This plan is developed to give guidance in the event of an emergency. At a minimum, the plan should include:
 - I. Emergency reporting numbers:
 - (a) Belvoir prefixes 805, 806, 704 and 767 shall dial 911. Landline phones dial directly to Fort Belvoir Emergency Communications Center.
 - (b) All other prefixes and cell phones shall dial the 703-781-1800 emergency number to request fire, medical, and other emergency assistance. These prefixes are routed through cellular towers and transferred to neighboring agencies. The call will then be transferred.
 - (c) The plan shall train the employees on what the proper building number and street address is for the location of the emergency.
 - II. Evacuation plan training to all personnel shall be taught within 30 days of employment. Annual fire drills shall be conducted at least once annually. The FES CRRB maintains decision in how frequent fire drills shall be conducted and at what times.
 - III. Safeguarding classified information.

- IV. Employees shall be trained on fire extinguisher locations, use and type(s) within their building and the proper use. Annual and initial training requirements are set by the FES CRRB. Responsibility of coordination and scheduling shall rest with the designated evacuation coordinator.
- f. Require annual fire prevention briefings for all employees conducted by unit Fire Evacuation Coordinators.
- g. Recommend recognition of employees observed practicing sound safety and fire prevention habits.
- h. Ensure and guarantee that FES emergency vehicle(s) and/or personnel have access to all facilities under his/her command. FES emergency vehicle(s) shall have access as defined in the UFC 3-600-1 and/or other applicable codes.
- i. A Knox Box shall be installed on site of all buildings for fire and emergency service access. Knox Box Switch for electronic gates should be installed on all applicable gates. The location shall be coordinated with the CRRB. All information, forms, and website information for purchasing will be provided by the CRRB.

2-3. Family Housing Responsibilities:

- a. Landlord
 - I. Shall keep a current copy of the Fort Belvoir Installation Fire Regulation on file at each Village Community Center Office.
 - II. Shall provide all residents of Family Housing with a current copy of this regulation.
 - III. Shall ensure that all residents are compliant with this regulation.
 - IV. Fort Belvoir CRRB shall assist the landlord in enforcing this regulation at any time to ensure compliance thereof.
- b. Residents
 - I. Shall report all emergencies immediately to 703-781-1800, (i.e., gas leaks, odors of smoke or gas, fires of any nature, electrical issues, medical, and any other immediate threat to life and/or property).

- II. Shall not disable, disconnect, or remove batteries from the smoke and/or carbon dioxide detectors. Replacement batteries can be obtained at no cost from the neighborhood management office.
- III. The use of charcoal and/or gas grills on decks, balconies, covered parking areas or patios and under any building overhang is prohibited. All grills must be used a minimum of 20 feet from any building structure. The storage of fuel cylinders attached or unattached inside any structure or on balconies is prohibited. Charcoal grills may be stored on porches, decks, and patios provided that the charcoal is completely extinguished.
- IV. Residents with wood burning and/or gas logs fireplaces are responsible for calling in a service order to have chimneys cleaned and inspected prior to use on an annual basis. Firewood shall be stored at a minimum of 20 feet from any building structure.
- V. Recommend cleaning and inspection prior to use on an annual basis of any gas fireplace.
- VI. Portable fire pits shall be permitted if the following safety guidelines are followed:
 - (a) Cannot be located within 50 feet of a structure, under any type of overhang, or under trees when it is in use.
 - (b) The fire pit must have a screened cover, which is used to prevent sparks from escaping.
 - (c) Fires must always be kept small and under control.
 - (d) Fire and Emergency personnel may determine at any time that a fire needs to be extinguished.
 - (e) Bonfires are not permitted.
 - (f) During times of extreme fire hazard conditions, fire pits shall not be utilized. Reference Virginia Department of Forestry, Fire Laws before burning.
 - (g) A fire extinguisher must be present when the fire pit is in operation. The fire extinguisher protecting the residence shall not be used and shall remain inside the residence.

- (h) A garden hose must be fully operable and readily available to extinguish any spot fires.
- (i) Must not cause a nuisance in area being burned.
- (j) Trash, rubbish, refuse, liquids, or solid wastes are prohibited from being burned.

Chapter 3

Facility Occupancy Requirements

- a. Every occupied facility on Fort Belvoir proper must have an occupancy permit issued by the Community Risk Reduction Branch (CRRB) displayed in a conspicuous location.

Occupancy permits are required to maintain occupancy of facilities and can be revoked at the discretion of the Fire Chief for significant fire risk or not adhering to proper inspection frequency.

- b. Inspection frequency for all Fort Belvoir Garrison facilities will be followed as described below. The frequency adjustment aligns the Community Risk Reduction Branch to meet Army Regulations and NFPA 1730 minimums, while still providing exceptional delivery of risk reduction service to the community.

- c. **Low and Medium Hazard Occupancies- Annual Basis**

Facilities with low-risk inspection frequencies have minimal recorded fire loss, minimal potential for loss of life, and minimal economic impact. Facilities with moderate risk inspection frequencies have moderate recorded fire loss, moderate potential for loss of life, and moderate economic impact. Low and Medium hazard occupancies will be 100% inspected on an annual basis.

Occupancy Types: Business, Educational, Assembly, Mercantile, Storage

- d. **High Hazard/ Critical Infrastructure/ Mission Essential- Semi Annual Basis**

High risk facilities include any facility where occupants have a high dependency on the fire protection features or staff to assist in evacuations during fires. Facilities within the Critical Infrastructure and Mission Essential risk category are any facilities that have the potential to cause debilitating effects to the community or essential missions if damaged, degraded or destroyed. All High Risk, Critical Infrastructure, and Mission Essential facilities will be 100% inspected on a semiannual basis.

Occupancy types: MEVAs, Health Care, Dormitories, High Rise, Hotels, Laboratories, Research Facilities, Public Safety Facilities.

e. CDC/CYS Facilities- Monthly

All Child Development Centers (CDC), Child Youth Service (CYS) school age services, Youth Activity Center (YAC) facilities will remain on their current frequency as set forth by Army Regulation.

f. Family Child Care Facilities-Quarterly

All undergo a minimum inspection at time of initial openings and annually at the Garrison level. CRRB support G-9 & IMCOM inspections on their current frequency as set forth by Army Regulation.

**Chapter 4
Fire Hydrants**

- a. Shall not be obstructed by fences, trees, shrubs, or any other type of barrier.
- b. Shall not be used for other than firefighting, testing, or flushing except when specifically approved by the Installation Fire Chief or his/her designee.
- c. Only a standard fire hydrant wrench shall be used to operate the hydrant unless it's an underground fire hydrant located on airfields or near hangars. Then a ratcheting hydrant wrench must be utilized.
- d. Fire hydrants shall not be painted by anyone except approved DPW or designated contractors.
- e. Vehicles or equipment shall not be parked closer than 15 feet either side of a fire hydrant. Fire hydrants are a sign unto themselves and posting of "No Parking" signs are not required.
- f. Fire hydrants shall be painted, and color coded in accordance with NFPA 291 Fire Flow Testing and Marking of Hydrants, current edition.
- g. Fire hydrants shall be maintained and tested in accordance with UFC 3-601-2.
- h. Flow tests will be conducted by a Qualified Fire Protection Engineer (QFPE) contracted by DPW or USACE for Fire Protection design analysis. All flow test records will be submitted to the Fort Belvoir Community Risk Reduction Branch (CRRB). Flow tests will be conducted per UFC 3-600-1 and UFC 3-601-2.
- i. Protective barriers shall be installed when hydrants are subject to vehicular traffic damage. The barriers shall be painted or marked with a reflective material to be transparent.

- j. Fire hydrants that are out of service shall be identified by American Water or The Villages at Belvoir. A metal placard, at least 12 inches in diameter with weatherproof BLACK letters on WHITE backing, reading "OUT OF SERVICE," shall be used. The placards must be placed so out-of-service hydrants can be identified from approaching directions. Fire and Emergency Services shall be immediately notified. Fire and Emergency Services shall be notified prior to shutting off water mains in any area on Fort Belvoir. Black bags covering hydrants are also acceptable.
- k. In the event of snow, American Water and The Villages at Belvoir shall maintain a clear unobstructed distance of 3 feet around the hydrant.

Chapter 5

Evacuation Plan

- a. An evacuation plan is required in all buildings, including FCC providers per AR-608-10. (*Housing is excluded*).
- b. Evacuation plans shall be posted on each floor.
- c. Evacuation plans are required near the exits and stairwells. Evacuation plans shall be displayed in a professional manner to include a frame.
- d. All escape routes should be adequate for free flow of the traffic expected and should be adequately lighted.
- e. Where personnel are available, route monitors should be used; these people shall leave the building after the last evacuees. Personnel should be assigned to assist, as necessary, any partially incapacitated persons in the building.
- f. Evacuation plans shall be a minimum of 8 ½ X 11 inches on white paper and submitted to the CRRB for approval. Each plan shall contain at a minimum Primary and Secondary exit route, Fire Extinguisher locations, and a mark or symbol indicating where an individual is located in the building in relationship to the particular posted sign location. Such mark or symbol shall indicate the statement "You are here". Each sign shall also indicate the designated meeting place at the outside of the building.
 - l. See Appendix A for illustration and explanations.

Chapter 6 Fire Alarms

6-1. Reporting of Fires and Other Emergencies

- a. Any person discovering a fire, odor of smoke, gaseous fumes, or other hazards, shall immediately alert all personnel in the building by activating the fire alarm, and shall report the fire/hazard or emergency by dialing 911 from an 805, 806, 704, and 767 extensions. All other extensions and cell phones shall call 703-781-1800. All emergencies and fires shall be reported, including those extinguished on discovery and those burned out before discovery.
- b. No person shall make, issue, post or maintain any regulation or order, written or verbal, which would require any person to take any unnecessary risks delaying action prior to reporting a fire to the Fort Belvoir Fire and Emergency Services.
- c. It is a violation of the law for any person to willfully make any false, fraudulent, misleading, or unfounded report or statement or to willfully misrepresent any fact with the intention of misleading any fire department personnel or that interferes with the operation of the fire department.

6-2. Building Evacuation

- a. In the event of a fire alarm or other emergency, all occupants shall immediately evacuate the building or area in an orderly manner unless otherwise specified per facility plan and fire protection features.
- b. Occupants shall report at a pre-designated meeting place to be accounted for.
- c. No person shall fail to leave a building when notified to do so when directed by Fire and Emergency personnel as a result of a known or perceived emergency.
- d. No person shall fail to leave any overcrowded premises when ordered to do so by Fire and Emergency personnel.
- e. Re-entry to building will only be authorized by FBFES representative when emergency has been mitigated.

6-3. During Progress of Fire

- a. Traffic:
 - I. Vehicle operators meeting or being overtaken by emergency equipment showing visible or operating emergency lighting and/or with siren sounding shall immediately clear street intersections.

- II. Vehicular traffic shall pull to the right side of the road, stop, and remain stopped until all emergency vehicles have passed.
 - III. Vehicles will remain at least 500 feet behind emergency vehicles.
 - IV. POV's and military vehicles shall not approach or attempt to drive through parked emergency vehicles with emergency lights operating, endangering the lives of emergency crews.
 - V. Upon notification of a fire emergency, the Fort Belvoir Police shall dispatch patrols to the fire scene to provide traffic control and security of government or private property.
 - VI. Vehicles shall not park in fire lanes, within 15 feet of fire hydrants, in front of Post Indicator Valves (PIV), sprinkler connections, buildings, access roads, or gates which would interfere with the firefighting operation in any manner.
- b. Authority: The Installation Fire Chief or his/her representative maintains authority of all emergency responses involving DES/FES personnel. No person shall interfere with fire officer or firefighting personnel at any time.
- c. Entry to Fire Area:
- I. During firefighting operations, including overhaul and investigations, entry to any fire area is restricted to firefighting forces and those having stipulated duties in connection with the operation. All other personnel shall remain well outside the zone of activity.
 - II. Vehicles shall not drive over fire hoses unless directed to do so by DES/FES personnel.

Chapter 7

Fire Alarm Systems

7-1. Applications

- a. Fire alarm reporting systems are the base-wide reporting systems that connect the building fire alarm control panel to the installation fire department.
- b. The building fire alarm system shall be connected to the fire alarm reporting system as a means for automatically and manually reporting fires to the installation fire department.

7-2. Requirements

- a. Fire alarm systems shall conform to the UFC 3-600-01 Fire Protection Engineering for Facilities, NFPA 72 National Fire Alarm Code, NFPA 70 National Electric Code current editions, and shall provide the following:
 - I. Transmission of coded signals to the Emergency Communications Center. (Fire, Trouble, and Supervisory).
 - II. Permanent record of alarm signal and date.
 - III. Automatic supervision of alarm initiating circuits.
 - IV. Automatic testing of radio signal devices.
 - V. Systems shall be listed or approved for use with the King Fisher transmitter.
 - VI. Label all fire alarm devices on addressable fire alarm systems.
- b. Plans and calculations shall be prepared by NICET Certified Level III (minimum) for Fire Alarm Systems in accordance with NFPA 72, and stamped by a licensed Fire Protection Engineer, prior to submittal to the CRRB.
- c. Plans must be approved by the Community Risk Reduction Branch (CRRB) prior to installation.
- d. Fire alarm systems shall be tested and accepted in accordance with UFC 3-600-1 or NFPA 72 current edition by the Community Risk Reduction Branch (CRRB) prior to being placed in service for occupancy.
- e. All inspection testing and maintenance for fire alarm systems shall be in accordance with the most current edition of UFC 3-601-2.

- f. At any time, a fire alarm system shall be out of service for 8 hours (1 business day) or more, signage shall be posted at every entrance point of the building and at the fire alarm panel. The signage shall state: "ATTENTION! ATTENTION! ATTENTION! The Fire Alarm is OUT OF SERVICE DIAL 703-781-1800 TO REPORT A FIRE. "The fire alarm contractor and the tenant are both responsible for the posting of signs and for contacting the Fire department.
- g. When the system is taken out of service and/or placed back in service, dial 703-806-6911 to report the status thereof.

Chapter 8 Sprinkler Systems

8-1. Application Requirements

- a. Automatic sprinkler systems shall meet the requirements of the UFC 3-600-01 Fire Protection Engineering for Facilities, NFPA 13 Installation of Sprinkler Systems current editions.
- b. Complete automatic sprinkler protection shall be provided in all new or renovated facilities including residential dwellings.
- c. Plans and calculations shall be prepared by NICET Certified Level III (minimum) for Automatic Sprinkler Systems in accordance with NFPA 13, and stamped by a licensed Fire Protection Engineer, prior to submittal to the CRRB.
- d. Plans must be approved by the Community Risk Reduction Branch (CRRB) prior to installation.
- e. Sprinkler systems shall be tested, accepted and maintained in accordance with UFC 3-600-1, NFPA 13, NFPA 25 current editions and any other applicable codes by the CRRB prior to being placed in service for occupancy.
- f. All inspection testing and maintenance for fire alarm systems shall be in accordance with the most current edition of UFC 3-601-2.
- g. All Fire Department Connections (FDC) shall be identified with a red sign with white letters "FDC". The reflective sign shall be 12"x12".
- h. The view or operational function a Fire Department Connections shall never be obstructed by landscaping or any other physical barrier.

- i. Fire Department Connections shall be a single 4 inch Storz connection. Remote FDC shall be no more than 100 feet from the building and shall be 3 feet above finished grade.

8-2. Connection to Fire Alarm Systems

- a. Sprinkler systems shall be connected to the installation fire reporting system.
- b. The system shall transmit water flow alarms, trouble signals, and supervisory signals.

Chapter 9 Fire Extinguishers

9-1. Application

- a. Portable fire extinguishers shall be required in all facilities, occupancies, and residential dwellings on Fort Belvoir.
- b. Portable fire extinguishers shall be installed and located in accordance with NFPA 10 Portable Fire Extinguishers most current edition.
- c. A designated Fire Protection Engineer (FPE) is responsible for determining the number and type of extinguishers in each facility. Community Risk Reduction Branch (CRRB) will ensure that FPE's recommendations will be installed and followed based off of provided signed plans for the facility.
- d. All fire extinguishers shall be Underwriters Laboratory (UL) listed or Factory Mutual (FM) approved. The minimum size for any extinguisher located in a facility or building is 10 lbs.

9-2. Requirements

- a. Recessed or semi-recessed enclosed cabinets shall be provided in all new or renovated facilities.
- b. Fire extinguishers in facilities become the tenant's responsibility for maintenance, repair, and replacement.
- c. The Fire Protection Specialist (FPS) will provide FB (DPW) FM-158, Fire Extinguisher tags for each extinguisher in use. The Fire Evacuation Coordinator and/or Building Coordinator shall inspect the condition of fire extinguishers and initial the tag on a monthly basis.

- d. Flight lines: Installations shall issue (on hand receipt) alkaline base (sodium and potassium bicarbonate), dry chemical, 50-pound and 125-pound or equivalent, Class B and class C fire types (BC), wheeled extinguishers for the aircraft. (They will replace existing 1211 extinguishers through attrition).
 - I. Every three parked, small, or medium helicopters “ (UH-60/AH-64 and below) and small “fixed- wing “ aircraft (C-12 or equivalent) requires a 50-pound BC, dry chemical or equivalent, wheeled fire extinguisher.
 - II. Every three parked, large helicopters (CH-47 or equivalent), requires a 125-pound BC, wheeled, dry chemical or equivalent, fire extinguisher.
 - III. Every three parked, medium fixed-wing aircraft (for example, C-20, C-23, A&B, C-26 or similar aircraft) requires a 125-pound BC, wheeled, dry chemical or equivalent fire extinguisher.
 - IV. Every parked, large-frame aircraft (for example, C-17, C-130, C-5, C-141, KC-135, DC-8, B707, KC-10, DC-10 or similar aircraft) requires a 125-pound BC, wheeled, dry chemical or equivalent, extinguisher.
 - V. Every landing strip and helipad without regularly assigned ARFF vehicles requires a 125-pound BC, dry chemical or equivalent extinguisher.
- d. Aircraft: The user shall provide fire extinguishers and extinguishing systems according to the specifications for specific type and model aircraft.
- e. Petroleum, oils, and lubricant areas: The user shall provide size BC, dry chemical extinguishers at POL tanker truck dispensing points, tanker truck parking areas, and outside tracked vehicle maintenance areas.
- f. Tactical and other off-road mobile equipment: Provide per applicable technical bulletins.
- g. Troop units: Issue per TB 5-4200-200-10.
- h. Watercraft: Provide per Coast Guard regulations (available from the Commandant, U.S. Coast Guard (G-M/A2), Washington, DC 20590).
- i. A Class K fire extinguisher shall be installed in any area that has any type of cooking equipment/appliances.

9-3. Inspection, Testing, and Maintenance (ITM)

- a. Per NFPA 10, all fire extinguishers must be inspected monthly, annually, and every 6 years for hydrostatic testing. Facility managers, coordinators, or collateral duty safety officers that attend the Facility Evacuation Coordinator class provided by the CRRB, can perform the monthly tests.
 - I. Monthly Inspection- Can be performed by facility managers, coordinators, or collateral duty safety officers that attend the Facility Evacuation Coordinator class provided by the CRRB. The monthly test consists of documented visual inspection of the extinguisher.
 - II. Annual inspection- The annual maintenance of a fire extinguisher requires the services of a trained and certified technician who has the proper tools, listed parts, and appropriate manufacturer's service manual. Maintenance of fire extinguishers should not be confused with inspection, which is a quick check of the extinguishers that is performed at least every 30 days. Because the detailed maintenance procedures for various extinguisher types and models differ, the procedures specified within service manuals need to be followed.
 - III. Six (6) year hydrostatic testing- If applicable a Six (6) Year Internal Examination of Certain Types of Extinguishers. Every six (6) years, stored-pressure fire extinguishers that require a Twelve (12) Year Hydrostatic Test shall be emptied and subjected to the applicable internal and external examination procedures as detailed in the manufacturer's service manual and this standard.

Chapter 10 Housekeeping

10-1. Scope. Performance of good housekeeping standards relative to fire safety is the responsibility of unit commanders and supervisors at all levels, regardless of whether or not contract custodial services are authorized. Commanders and supervisors shall ensure that all buildings and grounds (including trash pick-up areas) under their jurisdiction are maintained in a fire-safe condition at all times.

- a. Trash and waste material shall not be permitted to accumulate on floors, desks, utility closets, latrines, basements, laundry rooms, day rooms, air handler rooms, boiler rooms, attics, or underneath stairs and buildings. The final decision of what constitutes excessive accumulation of combustible materials, trash and other waste material rests with the FPS. This pertains to all combustible material to include work papers, magazines, books, personal items, etc. Storage options may be a viable solution if cleared through the FPS. The term storage relates to file cabinets, drawers, etc. At no time shall cubicles, offices, and/or other workspaces be utilized as storage areas or closets.

- b. Oily rags, clothing, paint rags, or other materials subject to spontaneous ignition shall not be permitted to accumulate in buildings or be placed in containers with other combustibles. Metal containers with self-closing lids shall be provided for saturated rags or clothing. Wet mops or mops used for waxing purposes shall be on mop racks in an approved storage room or placed in racks outside of building.
- c. Immediately prior to securing an office at close of business each day or at change of shifts, responsible supervisors shall ensure that all trash and waste containers are emptied into outside fire-resistant trash receptacles. Receptacles in facilities, which are provided by custodial services, need not be emptied at the close of business each day unless they are overflowing.
- d. Trash dumpsters shall not be positioned closer than 15 feet to any building. All outside trash containers shall be equipped with lids or doors, which shall be kept closed. Dumpsters shall not be placed under sprinkler systems or loading docks; they shall not block fire lanes or fire hydrants, or connections to sprinkler systems.
- e. Excessive vegetation and trash are prohibited in the vicinity of buildings, fuel tanks, aircraft parking areas, or similar locations.
- f. Facility occupants shall ensure that structures are kept free of bird nests (call DPW work services; Family Housing call contract service).
- g. Sawdust and chips shall be removed from all woodworking shops at the close of each workday. Under no circumstances shall sawdust or sweeping compounds (floor sweep) be used as an absorbent material for fuel, oils, or other flammables.
- h. Only approved sweeping compounds shall be used on Fort Belvoir. After bags of sweeping compound have been opened for use, they shall be stored in a closed metal container.
- i. Janitor's closets shall not be used as trash collection points or storage of non-related items. Closets shall be kept clean and used for janitorial supplies only.
- j. Soiled linen of any type shall be kept in closed metal containers or approved hampers.
- k. Storage shall not be permitted in means of egress, under stairways or under floors of buildings, to include mechanical and boiler rooms, transformer rooms or vaults, and water heater closets. Materials shall not be stored against buildings or in front of doors or exits. Attics shall not be used for storage areas unless specifically designated for such use and fire suppression protection is provided.

- l. Lint shall not be allowed to accumulate anytime in or around clothes drying units. The dryer vent flexible hose shall be as short as possible, secured at both ends, and not bent to the point of closure. Dryer vents shall vent to the outside of buildings.

- m. Care shall be exercised when storing materials to assure that aisles are maintained clear for approach ways for fire fighters and for easy access to firefighting equipment, (i.e., sprinkler control valves and heads, fuse boxes, alarm boxes, DES/FES connections, risers, drains, and power switches). Bicycles are not permitted to be stored in hallways or foyers. Bicycles found parked in common areas, stairwells, attached to handrails, furniture or otherwise impeding egress from a building shall be removed at the bicycle owners' expense.

Chapter 11

Smoking and Disposal of Smoking Materials

11-1. Scope: This chapter applies to smoking as it relates to fire prevention, unsafe smoking practices and exposure to personal injury or death. Therefore, fire control measures and rigid enforcement are required to prevent this type of fire cause.

- a. Building Evacuation Coordinators, managers, and supervisors shall ensure butt cans, or other trash-free, noncombustible containers are available for disposal of smoking materials. Smoking materials shall not be discarded on the grounds near buildings. Containers shall be emptied as needed. Any violations of this order may result in the loss of a designated smoking areas.

11-2. Control of Smoking

- a. Smoking is prohibited in or within 50 feet of any building or structure, walkway, common gathering area, sidewalk, or other area deemed by the Fire Protection Specialist (FPS). Such an act could result in possible loss of life or destruction of property by fire or explosion. If smoking areas are misused through carelessness and smoking materials are being improperly disposed of, the facility FPS shall discontinue the smoking privileges in that area.

- b. Approved non-combustible containers for disposal of smoking materials shall be provided for each designated smoking area.

- c. Smoking shall not be permitted within 50 feet of flammable gases, liquids, explosives, or dangerous combustibles, and "NO SMOKING" signs, shall be posted in areas containing such materials.

- d. The appropriate commander will approve authorized smoking areas. Signs shall designate them. The Department of the Army Smoking Policy will be enforced.

11-3. Smoke Prohibited Areas

- a. Except when permitted in designated areas under conditions outlined above, smoking, striking of matches, or operating mechanical lighters shall be prohibited in or within 50 feet of:
 - I. Any flammable storage area
 - II. Aircraft
 - III. General flight line area
 - IV. Aircraft repair docks
 - V. In POL storage or dispensing area
 - VI. Flammable liquids
 - VII. Fuel dispensing vehicles
 - VIII. Fueling and de-fueling operations
 - IX. Vehicle maintenance (restrictions on smoking in motor pools are in AR-385-55).
 - X. Activities that are obviously hazardous and not listed herein.
 - XI. Under no circumstances will smoking materials be discarded into wastebaskets.

Chapter 12 Storage

12-1. Scope: Applicable to all buildings and areas used for storage.

12-2. General Storage

- a. Combustible materials shall not be stored within 25 feet of any structure without approval of the Installation Fire Chief or his/her representative.
- b. All stored materials shall be neatly arranged and kept in an orderly manner.
- c. Storage areas shall be segregated to the maximum extent possible from all other parts of the building and used for no other purposes.

- d. All storage areas containing hazardous materials shall be identified by their hazard according to NFPA 704 placard.
- e. A clearance of 18 inches shall be maintained from sprinkler heads and ceiling lights.
- f. Storage shall not be allowed in any means of egress, or under stairwells.
- g. Items shall not be stored in any manner which would block access to fire extinguisher, standpipes, sprinkler risers, sprinkler connections, fire alarm boxes, fire alarm pull stations, heaters, furnaces, electrical panels, stairwells, mechanical rooms, or electrical rooms.

12-3. Warehouses

- a. Fire doors shall not be obstructed in any manner.
- b. Fire doors shall not be locked open or closed and shall be maintained in good working order, including fusible links and cables.
- c. Fire doors shall be opened and closed manually, not with tugs or forklifts and, when opened, shall be opened to full position to prevent damage from traffic.
- d. Fire exits, fire lanes, and exit aisles shall be unobstructed throughout warehouses and storage areas.
- e. Stacks more than 15 feet high, or which contain hazardous materials, shall not be stored closer than 36 inches to sprinkler heads.
- f. Accumulation of excessive waste or packing material shall not be permitted. Supervisors will ensure removal of waste or packing materials from buildings or areas and shall ensure fire safe disposal. Working supplies of combustible packing materials shall be restricted to contents of non-combustible bins or boxes provided for this purpose.
- g. Doors and exits shall not be blocked unless approved by Installation Fire Chief or his/her designee. Blocked doors shall be indicated as such, both on the interior and exterior of the building, by prominently displayed placards, painted signs, or other suitable means, with four-inch red lettering on a white background.
- h. A 36-inch space shall be maintained between stored combustible materials and interior firewalls and partitions.

- i. Gasoline-powered forklifts, and other gasoline powered material handling equipment shall not be parked overnight inside warehouses or storage areas unless approved by the Community Risk Reduction Branch (CRRB). When approved, the following shall apply:
 - I. The key shall be left in the ignition.
 - II. The steering wheel shall not be locked.
 - III. Shall be parked by a loading dock door that gives access to ground level.
 - IV. Shall have a drip pan under the engine if liquid fueled.
- j. Fusible links on fire doors and other fire protection devices shall be UL listed and approved, and devices shall be arranged so that they are subject to initial heat of any fire that may develop. They shall not be painted, locally manufactured, nor tampered with.
- k. Items shall not be stored in any manner which would block access to fire extinguisher, standpipes, sprinkler risers, sprinkler connections, fire alarm boxes, heaters, furnaces, electrical panels, or fuse boxes.
- l. Empty pallets inside structures shall be limited to a one-day working supply.
- m. Storage on un-roofed docks is permitted provided access for DES/FES is not blocked and no part of the storage is within 20 feet of a firewall separating sections of noncombustible building.
- n. Storage is not permitted on covered docks unless sprinkler protection is provided.
- o. The Fire Protection Specialist, in writing, may approve electric forklift charging systems located within a facility. A minimum of 48 inches of clearance will be maintained on all sides including the top. Units shall be kept clean; qualified repair personnel shall keep cables in good repair and perform all repairs to units. Employees shall be briefed, as necessary to assure that all personnel know where power disconnects are located. A 10-pound ABC fire extinguisher shall be within 25 feet of all battery charging operations used for forklifts.
- p. Propane powered forklifts used in units are authorized, providing storage within a facility is authorized in writing by the Fire Protection Specialist (FPS), including the area where unit is kept at night. Storage of propane bottles is limited to one spare unless the storage area is specifically designated for that purpose.
- q. All forklifts shall be equipped with a minimum of one, 2 ½ lb. ABC fire extinguisher.

12-4. Hazardous Materials

- a. Explosives, hazardous chemicals, and materials shall be stored only in structures and areas approved by the Installation Fire Chief or designee. NFPA 704, Identification of the Hazards of Materials for Emergency Response; NFPA 30, Flammable and Combustible Liquids Code; and AR 385-64, U.S. Army Explosives Safety Program; and DOT (Department of Transportation) Placards are used for marking storage buildings, hazardous material vehicles, cabinets, ammunition storage areas, and ammunition transporting vehicles.
- b. Symbols identifying explosives, ammunition, and dangerous materials shall be provided and posted by the using organization. Fire symbols on buildings other than munitions storage area facilities (arms room) shall be the right size, metal, and removable. Painting fire symbols on buildings or storage lockers is unauthorized. Drawings of required signs must be included with proper dimensions.
- c. The organization using ammunition storage areas (not arms rooms) shall furnish the Installation Fire Chief or designee a list of the types of hazardous materials contained in each magazine, structure, or area. Ammunition magazines shall have fire symbols and other required markings posted. Munitions storage personnel shall update the DES FES CRRB monthly.
- d. Storage of hazardous chemicals in laboratories and other work areas shall not exceed a five-day working supply.
- e. Storage of hazardous materials can be accomplished in buildings after written approval of the Installation Fire Chief or designee. Posting of appropriate hazardous material placards is the responsibility of the using organization.

Chapter 13 Horse Stables

- a. There is to be no smoking inside of or within 50 feet of the circumference of the barn's arenas, stalls, and driveway.
- b. Extension cords may be used only during the time the personnel are physically at the stable. They are not to be left plugged in overnight.
- c. Heating, lighting, and cooling devices using flammable/combustible liquids or electricity are not authorized in the stables or tack rooms.
- d. Any rooms to be used as a 24 hour or overnight watch area shall be approved by the Community Risk Reduction Branch (CRRB).

Chapter 14

Flammable and Combustible Liquids and Gases (Small Storage Tanks)

14-1. Scope: Applicable to all buildings, building areas, or flammable liquids dispensing and storage.

- a. All flammable liquids stored in containers shall be identified by the appropriate flammable liquid label with the name of the contents stenciled or marked on the outside of the container or by factory label. Flammable liquids stored in metal drums used for dispensing purposes shall be installed on properly grounded metal stands or racks at least 20 feet from any building or structure, and the drums will be equipped with a spring-action or automatic-closing dispensing device.
- b. Marking of Tanks and Containers. Tanks and containers for the storage of flammable and combustible liquids above ground shall be conspicuously marked with the name of the product that they contain and "FLAMMABLE - KEEP FIRE AND FLAME AWAY". Tanks of 60 to 1,100 gal (227 L to 4164 L) capacities shall bear the additional marking "KEEP 40 FEET (12.2 M) FROM BUILDINGS". NFPA 704 Hazard Marker is required.
- c. Small portable flammable liquid containers will be safety type OSHA or UL approved containers. Container will be stenciled stating the contents and the word "FLAMMABLE". No individual safety container will exceed five gallons in capacity. Flammable liquids are considered to have a flash point of 140 degrees Fahrenheit or less.
- d. Flammable and combustible liquids warehouse storage facilities will be marked "FLAMMABLE" on all sides. Only those facilities designated by DPW as flammable and combustible liquid warehouses may be used for this purpose. Gravity or mechanical means will positively ventilate all flammable or combustible liquid storage buildings or rooms. NFPA 704 Marker is required.
- e. Where occupancy of the building requires the storage of small quantities of flammable liquids such as office supplies, type cleaner, ditto fluid, and liquids required for laboratory work, these liquids shall be stored in an approved metal cabinet or ventilated metal locker with self-closing doors and spill tray under shelves. The cabinet or locker will be plainly labeled "FLAMMABLE". The total volume in cabinets or lockers shall not exceed more than 65 gallons and no container shall be larger than 5 gallons. NFPA 704 Marker is required.
- f. Flammable and combustible liquids and gases shall not be stored in administrative buildings, BOQ's, barracks, places of public assembly or basements of barracks, and basements of family housing.

- g. The storage or use of flammable/combustible materials, i.e. gasoline, charcoal, lighter fluid, and kerosene is prohibited in rooms containing hot water heaters, washers, dryers, in living areas, or other areas that might contain a possible source of ignition on Fort Belvoir.
- h. The use of OSHA/UL flammable storage cabinets is required for all flammable liquid storage. Not more than three cabinets shall be located in a single fire area. Vent bungs will stay in place with the exception of those cabinets vented to the outside of the building.
- i. A working stock (normally a five-day supply) of paints, oils, thinners, or cleaning solvents may be stored in paint shops, hobby shops, maintenance shops, and similar facilities where approved, flammable liquid storage buildings are not provided, and appropriate storage cabinets are available. A one-day supply may be maintained inside buildings when outside storage is available. NFPA 704 markers are required.
- j. Flammable storage lockers shall not be used for oxidizer or corrosive storage unless a "separation of hazards" condition exists in the locker as well as drip pans. Placards will be posted as to contents on the storage locker.
- k. Rags or other combustible materials shall not be stored in cabinets or lockers approved for flammable liquid storage.
- l. All flammable liquids in storage warehouses shall be stored in the following manner: floor area and stacks shall not exceed 2,000 square feet and clearance between the stacks and walls will be 36 inches.
- m. Containers, which have stored flammable liquids, will be stored, and handled according to the requirements for filled containers.
- n. Parts washers shall be kept in good repair including lid tilt and fusible link. They will not be used on aircraft hangar bay floors.
- o. Gasoline and other flammable liquids in an upright position will be secured from falling or being knocked over and must be stored in a well-ventilated area. Valves on empty containers must be closed securely to prevent evaporation of the acetone solvent and the flammable gases that these cylinders contain. Acetylene cylinders should never be stored within 100 feet of oxygen cylinders unless separated by an approved firewall. Signs to indicate no smoking or open flames must be posted in and around all areas where acetylene is stored. Filled acetylene cylinders stored within a single bay of a warehouse or an area of comparable size will be limited to a total volume of 2000 cubic feet of acetylene (14.5 cubic feet of acetylene weighs approximately one pound). Cylinders shall be stored vertically.

- p. Compressed gas cylinders, full or empty, shall be stored according to AR 700-68, Compressed Gases and Gas Cylinders; EM 385-1-1, General Safety Requirements; and OSHA Standards 1910.252 or whichever is the most stringent and current edition.
- q. Cylinders in the storage areas shall be secured in the upright position to prevent falling or being knocked over with caps on. Securing device shall be non-combustible.
- r. Cylinders must be protected against dampness and direct sunlight. If this is impossible, flameproof tarpaulins may be used as covers provided that the cylinders shall be separated with an 18-inch air space above the cylinders and between the cylinders.
- s. LPG containers, full or empty, shall not be stored in any facility on Fort Belvoir other than for display at sales areas or storage sheds in family housing. LPG containers used for field activities may be stored in a non-combustible fire rated room in a building if that building is protected by an automatic fire sprinkler system. The Installation Fire Chief or his/her designee, in writing, shall approve the storage area with a placard in place and no other storage of any kind will be in this room. Amounts shall not exceed 100 gallons.
- t. For propane powered forklifts and storage of their containers refer to Section 12-3 Warehouses (p).

14-2. Acids and Oxidizers

- a. All bulk storage and use of corrosives acids or oxidizing liquids shall be in conformity with standard safety practices. Storage areas shall not be established or moved without written notice to the Installation Fire Chief or his/her designee. Acid stored in storage areas shall be kept in original storage containers.
- b. Acids, oxidizing materials, and other dangerous chemicals will be stored IAW appropriate Safety Data Sheet (SDS). An NFPA 704 marker is required.

14-3. Painting

- a. Paints that require flammable solvents, thinners or flammable cleaners shall not be used without first removing all potential sources of ignition in the immediate area, providing adequate natural or mechanical ventilation as required, and restricting traffic through and adjacent to the work area.

- b. Tarpaulins and drop cloths used with oil-based painting operations shall not be stored within buildings but shall be folded and stored in metal lockers that are detached at least 15 feet from any building. Paint-soaked rags or paper towels shall be disposed outside of the building at the close of each business day in an approved container.
- c. Spray paint shall not be used within buildings unless standard spray booths or rooms constructed and arranged (IAW the current edition of NFPA No. 33) are provided for this purpose. Spray paint booths, rooms, and areas will be approved by the DES CRRB, before the operation begins.
- d. Minor touch-up involving the use of small aerosol or pressurized spray cans may be conducted outside of a standard painting spray booth if all precautions, such as eliminating ignition sources and providing adequate ventilation, are observed. Such operations shall be very limited in scope.
- e. Smoking is not permitted in any area where painting involving the use of flammable thinners, solvents, or cleaners is being done.
- f. Painting in aircraft hangars not designed, arranged, and equipped as an aircraft finishing facility shall be limited to minor touch-up, including re-lettering. Such painting shall be done only in hangars that are completely protected by a deluge foam sprinkler system in full operating condition and will be subject to additional restrictions as follows:
 - I. Other aircraft shall not be located within 50 feet of the aircraft undergoing touch-up painting.
 - II. Hangar doors shall be open to provide adequate, natural cross-ventilation to disperse vapors.
 - III. Personnel engaged in the painting operation shall mark off the area within 50 feet of the aircraft, undergoing touch-up painting, to prohibit traffic through the area.
 - IV. No compressor, generator, or other spark producing device or source of ignition shall be permitted within the 50-foot restricted area surrounding the aircraft undergoing touch-up painting.

14-4. Flammable Liquid Powered Equipment

- a. Motor vehicles to include mowers, snow blowers and similar items shall not be stored in hangars or other shops not specifically designed for such storage, nor shall they be operated therein longer than the time necessary to transport material or equipment. Spark arrestor shall be installed on all internal combustion engines that are required to operate within the confines of a facility designated as a hazardous area.
- b. The storage of POVs inside any building on Fort Belvoir is not authorized. Government vehicles shall not be parked overnight in any building not designed and used for that purpose.
- c. Equipment (except forklifts and tugs) shall not be operated inside a building.
- d. Gasoline powered or diesel-powered generators shall not be stored in any buildings with fuel in the tanks.
- e. Refueling vehicles or tanker trucks, semi or HEMTT (Heavy Expanded Mobility Tactical Truck) shall have fuel tanks emptied and purged before maintenance is performed inside any motor pool building.
- f. Vehicles that are capable of being moved while inside motor pool buildings for maintenance shall be unlocked and have keys in the ignition. Compartments and storage areas of these vehicles may be locked.

14-5. Fuel Delivery Nozzles

- a. Latching or locking devices that restrict or impede the ability to automatically stop the flow of fuel shall not be permitted on any gasoline or other flammable liquid dispensing nozzle. This does not preclude the use of listed and approved automatic nozzles meeting the requirements of Section 19a of UL 842, Standard for Valves for Flammable Liquids.
- b. Dispensing nozzles used at marine service stations shall be of the automatic closing type without a latch open device.
- c. A hose nozzle valve used for dispensing Class I liquids into a container shall be manually held open during the dispensing operation.
- d. Glass or plastic containers other than plastic containers listed by UL, or Factory Mutual Engineering shall not be used for gasoline. Operators are prohibited from dispensing gasoline into containers other than approved containers even for emergency purposes.

- e. Filling containers of any kind in the back of pick-ups or other vehicles is prohibited. Remove portable containers from vehicles before filling and do not use lock open nozzles.

14-6. Petroleum Supply Points

- a. Petroleum supply point's equipment and operation requirements are set forth in FM 10-69 and FM 10-67-1. Personnel assigned to petroleum supply points shall be familiar with the location and operation of portable fire extinguishers. Instructional classes are available through the DES/FES.
- b. Grounding points away from established petroleum supply points or at dispersed field sites shall be checked by the using agency for proper electrical resistance. Grounds showing 10,000 Ohms or greater shall not be used.

14-7. Tank Vehicles

- a. Petroleum tank vehicles for transportation of flammable liquids will comply with most current NFPA Regulations and FM 10-68, FM 10-69, and FM 10-67-1. DOT markings are required.
- b. Vehicle drivers will be familiar with the location and operation of portable and installed fire-extinguishing systems of the petroleum tank vehicles.
- c. Vehicles will be grounded when parked.
- d. Tank vehicles may be parked in a group of no more than 5, with 20 feet between groups and 10 feet between each vehicle in the group. Any one vehicle must be able to be moved from the vicinity without moving another vehicle.
- e. Fueling vehicles from vehicles shall have a 3-way ground.
- f. Chain link fences are not authorized grounds and shall not be used as such.
- g. Fuel Tank Purging: Disposal of hazardous material (fuels, oils, paints, solvents, etc.) by flushing into drains or sewers is strictly prohibited. Disposal of gasoline in sanitary sewers is particularly dangerous. Explosive fumes may accumulate and cause explosions at unpredictable locations. Before attempting to purge tanks, coordinate with the DPW Environmental Management Office. Make certain proper disposal practices are implemented. Failure to do so may cause severe environmental problems or intolerable safety hazards.
- h. Parking of HEMTT refuelers and tractor-trailer refuelers inside motor pool bays, without tanks being purged, is strictly forbidden.

- i. Use of fuel tankers as barricades is prohibited.

14-8. Building Markings

- a. Any building containing and/or storing any quantity of any hazardous material, (i.e., flammable/combustible liquid/solid, acids, compressed gases etc.), shall be required to be marked with a NFPA 704 Placard. The placard shall be sized according to the current edition of the NFPA 704. DES/FES Community Risk Reduction Branch (CRRB) may approve exceptions on case-by-case basis.

Chapter 15

Building Components

15-1. Scope: Applicable to all structures. (Housing excluded)

15-2. Electrical Wiring, Equipment, and Appliances

- a. All electrical appliances shall be of the approved type and bear the Underwriters Listing, or Factory Mutual seal of approval. All electrical wiring and equipment shall follow and shall be installed in accordance with the most current National Electrical Code and under direct control of a certified electrician.
- b. Fuses in fuse boxes shall not exceed the limits stenciled on the box (i.e., circuits shall not be over fused).
- c. Electrical appliances such as fans, radios, coffee pots, coffee warmers, space heaters, foot warmers and other devices non mission essential shall be unplugged at the close of the workday (clocks, refrigerators and housing are excluded). Coffee pots, microwaves, approved space heaters, toasters, refrigerators, and other similar items shall only be plugged directly into a three-prong wall outlet.
- d. The Fort Belvoir Community Risk Reduction Branch (CRRB) reserves the authority to have any heat producing item removed at any time.
- e. Multiple plugs without circuit breaker protection, electrical timers other than that factory built into coffeepots, and other type of electrical convenience attachments are prohibited.

- f. Extension cords and/or power-strips shall be UL approved and shall not be used in lieu of fixed wiring. They shall not be tacked, stapled, covered, or fastened to walls, pipes, or other objects. Extension cords and/or power-strips shall not be run into ceilings, spliced, run under rugs, through walls, partitions, windows, or doors. Cords shall be of the correct size for the intended use and shall be a maximum length of eight feet and not “piggybacked” or “daisy-chained”. When not in immediate use, they shall be disconnected from power source. Unserviceable, unsafe, or non-complying privately owned cords and appliances shall be removed. The decision of whether an extension cord and/or power-strip is serviceable rests exclusively with the FES Community Risk Reduction Branch (CRRB).
- g. Self-help installation of electrical circuits for permanently installed equipment is prohibited.
- h. Fixed or direct wiring of appliances, extension cords, or other electrical devices not listed for such use to an electrical circuit is prohibited.
- i. Connection of welding machines, sanding equipment, or other heavy-duty equipment to an electrical circuit with temporary connections (alligator clips, etc.) is prohibited.
- j. Do not tape, wire, or bridge circuit breakers to the open position (breaker switches may be tagged or painted to notify personnel not to turn them off). The area of responsibility for each circuit breaker shall be noted inside the circuit breaker box. Do not block the circuit breaker panel; it must be easily accessible to building occupants, emergency, and maintenance personnel. A 36-inch clearance shall be maintained.
- k. Circuit boxes, electrical outlets, switch boxes, junction boxes, and breaker boxes shall have covers installed. Any openings shall have blanks installed.
- l. Unauthorized electrical wiring or devices shall be disconnected.
- m. Electrical space heaters are not authorized on Fort Belvoir unless the building heating system is inoperative and the DPW Environmental Office has conducted a survey. All approvals of electric space heaters must come from the DPW Environmental Office and the CRRB.
- n. Electrical space heaters must be UL approved, and have a knock-over safety device, and shall be the oil filled type. Only one electrical heater may be plugged into any one outlet and never be used on a power strip or extension cord.

- o. The use of multiple outlet power strips with circuit breakers is encouraged if it's necessary. Those without circuit breakers are considered illegal multiple outlets.
- p. Use of fuel-fired heating equipment inside buildings, including Herman-Nelson Heaters, is prohibited under most circumstances unless approved by the CRRB. Cleaning of tank and burner assemblies or any component thereof inside any building, other than an authorized repair shop, is prohibited. Safety precaution and operation procedures shall be complied with.
- q. Portable kerosene heaters shall not be used in any building.

15-3. Cooking Equipment

- a. Cooking is permitted only in authorized areas approved by an FPS. The decision of whether an area is authorized rests solely with the Fire Chief or his/her designee.
- b. Where cooking is permitted, personnel using the equipment are responsible for ensuring that all installed grease filters, exposed surfaces of kitchen range hoods, and areas behind, besides, and below kitchen ranges are cleaned daily. A certified contractor shall clean the unexposed interior of a range hood, as often as necessary (at least once every three months) to remove excess grease.
- c. Microwave ovens are authorized for use in rehabbed barracks and modular stacks. Before authorization is issued in non-rehabbed barracks and stacks, DPW Engineering will be consulted for power availability and proper wiring. The following items apply as a minimum under all circumstances where microwaves are used:
 - I. The commander of the unit must authorize the use and assure compliance with minimum safety standards.
 - II. Any microwave used must be UL listed and have a usable three wire grounding cord in serviceable condition (no splices nor frayed and must have a factory installed connector plug).
 - III. Microwaves shall be placed on the opposite end of the room from the hardwired smoke detector.
 - IV. Microwaves shall not run off of circuit breaker strips, multiple outlets or surge protectors and must be the only appliance plugged into the outlet.

- d. Coffee pots or similar small appliances shall not be used in other than approved areas. All appliances shall be UL listed, approved in writing by unit commander, and subject to removal based on FES inspection. When approved, appliances shall be placed on a non-combustible surface and shall be disconnected when not in use. Extension cords and/or power-strips are not permitted for use on coffee pots or other similar appliances.
- e. Hot plates, toaster ovens, bread makers, deep fat fryers and electrical skilletts are strictly forbidden in any facility on Fort Belvoir, unless in an approved dining facility under an approved and maintained commercial hood extinguishment system.
- f. A metal cover shall be provided for deep fat fryers in commercial and dining hall applications. The covers must be readily available in case of a grease fire. Deep fat fryers must be equipped with primary and secondary thermostats; the primary thermostat must be limited to 400 degrees F. The second thermostat must be non-adjustable fusible or manual resetting with a maximum cut-off temperature of 475 degrees F. Thermostats shall be tested semi-annually by qualified electricians. Facility managers and club custodians shall maintain records of these tests and results and forward a copy to the DES/FES Community Risk Reduction Branch (CRRB).
- g. Hood Suppression Systems that are not maintained, kept clean and serviceable and/or operational shall be placed out of service until a qualified technician has serviced the system and the system has been re-inspected by the CRRB and the Environmental Health Office.



15-4. Cooking Facilities other than Housing Units

- a. Hood and duct systems for commercial cooking equipment that produce smoke or grease-laden vapors shall comply with the most current NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.
- b. Kitchen extinguishing systems are limited to wet chemical or automatic sprinklers in accordance with the most current NFPA 96 Standard. Hood systems shall be cleaned at least every three (3) months.
- c. Fire suppression systems shall sound a general building fire alarm and shall automatically shut off all sources of fuel and electric power that produce heat to the equipment being protected by the unit.

15-5. Cooking Equipment in Facilities

- a. Areas, other than dwelling units, that are provided with residential type range top cooking surfaces shall be equipped with an approved residential range top extinguishing system.

- b. The extinguishing system shall be connected to the building fire alarm system to sound a general building fire alarm and shall automatically shut off all sources of fuel and electric power that produce heat to the equipment being protected by that unit.

15-6. Exits and Exit Access

- a. Any type of furniture or construction, limiting access to exits shall not block any hallways. Exit doors shall not be chained or locked under any circumstances, including when the unit of ownership is in the field. If the building is completely empty of personnel, only then may the building be fully locked down.
- b. Doors required for exit and exit access from buildings shall not be locked or blocked when the building is occupied.
- c. Other locks or fastening devices shall NOT be used on doors equipped with panic hardware AT ANY TIME, without approval of the Installation Fire Chief or his/her designee in writing.
- d. The use of hasps, chains, and padlocks are prohibited on exit doors on any building.
- e. Hallways and stairwells shall not be used for storage areas, work areas, or any other purpose that may obstruct or hinder access to exits in any occupancy.
- f. Prior approval for blocking a door that can be used as an exit, including overhead rolling doors, shall be obtained from the Installation Fire Chief or his/her designee and shall have an affixed sign saying "BLOCKED" with four-inch red letters and white background posted on both sides of the door.
- g. If the fire exit hardware is broken and a current work order is turned in for repair, the Installation Fire Chief or his/her designee may approve, on a case-by-case basis, the use of a temporary securing device provided that the door is operable from the inside according to the current edition of NFPA 101. The using organization is responsible to pre-brief all occupants on how the device works. Authorizations will be in writing and on file with the concerned Unit Fire Evacuation Coordinator and the CRRB.
- h. The minimum width of any means of egress shall not be less than 36 inches.

15-7 Emergency Lighting:

- a. Emergency lighting where required shall be in accordance with the current edition of NFPA 101 and shall be hardwired, with battery back-up, and tested monthly.

15-8. Self-Help Projects:

- a. All alterations, modifications, or additions to buildings shall be approved by DPW and coordinated through DES/FES Community Risk Reduction Branch (CRRB). The construction of plywood walls and partitions in any building on Fort Belvoir is strictly forbidden. Only qualified and licensed electricians will make or alter electrical installations, including wiring, outlets, power panel connections and lighting connections or installation.

15-9. Fire Lanes/ Emergency Vehicle Access:

- a. All buildings shall have at least one means of all-weather ground access to allow emergency vehicles unimpeded access to the building. All-weather ground access shall be paved or concrete which is a minimum 20ft in width. The CRRB has the authority to require any additional means of access as necessary. It shall be the responsibility of the tenant/owner to maintain a free and clear fire lane access at any time. Any damage occurring to the fire lane access shall be repaired immediately with no exceptions. (NFPA 1)

Chapter 16

Building and Space Use

16-1. Scope: Applicable to all buildings or structures.

16-2. General: Buildings or parts of buildings shall be used only for the purpose for which they were originally constructed. Where other use is to be made in a building, permanently or temporarily, with or without alterations, prior written approval by the Installation Fire Chief or his/her designee is required.

16-3. Sleeping Quarters:

- a. No individual or group of individuals shall be quartered or allowed to sleep in any building or part of a building not designated for quarters or in which the prime occupancy is other than designated a residential occupancy with appropriate fire protection features in place unless otherwise approved by the Installation Fire Chief. If temporarily approved, a coordinated fire and life safety inspection must be completed prior to the facility being occupied for sleeping purposes by the CRRB.

16-4. Attics and Basements:

- a. Shall not be used for any purpose unless specifically other than initially designed, unless approval is obtained from both DPW and FES CRRB. This is to control hazardous material and flammable liquids and/or gas storage in these areas.

16-5. Mobile Homes and Mobile Homes Used as Offices

- a. Mobile homes and/or modular buildings shall be equipped with exit lights and emergency lighting which the occupant or owner shall supply and maintain. Exit lights shall be LED with battery backup.
- b. Spacing distance criteria shall be 20 feet from any other building.
- c. Fire extinguishers shall be provided by the owner or occupant.
- d. Fire extinguishers shall be in accordance with NFPA 10, Fire Extinguishers.

16-6. Mechanical, Fire Alarm Control and Sprinkler Rooms:

- a. All Mechanical, Fire Alarm Control and Sprinkler Rooms will be identified with a FES logo. The logo will be placed on the entry door to all the above spaces.

Chapter 17 Vehicle Parking

17-1. Scope: Applicable to all motorized vehicles, bicycles, boats, trailers, and mobile homes operated or parked on the installation.

17-2. Vehicles, Boats, Travel Trailers, Mobile Homes, etc.

- a. Maintain a 20-foot fire lane around all motor pool buildings. No parking within ten (10) feet of buildings unless the parking area is DPW constructed and striped. Blocking access to any building or structure is strictly prohibited.
- b. Vehicles shall not be parked inside a building or structure unless the building is specifically designed for such use. Bicycles or motorcycles shall not be parked or stored in rooms, hallways, or stairways.
- c. No vehicle shall be parked in such a manner as to obstruct the movement or exit of an emergency vehicle from its parked position or emergency parking area.
- d. POV's leaking fuel shall be moved to a safe location at the expense of the owner or shall be removed by the Fort Belvoir Police when the owner cannot be located.

- e. Carriers of hazardous materials and/or POL tanker trucks shall not be parked in any parking lot other than those approved for their parking.
- f. Vehicles shall not be parked in fire lanes.

Chapter 18

Hazardous Operations

18-1. Scope: Applicable to all buildings, structures, and areas.

18-2. Hot-Work Permit

- a. FB (DIS) FORM 84, Hot Work Permit or equivalent, shall be issued for open flame operations, welding operations, roof tarring operations or other hazardous potential fire actions. Hot work permits are required for permanent shops engaged in open flame and welding operations once it has been approved by the Installation Fire Chief or his/her designee. Permanent welding shops shall have their annual permit removed for repeated violations of fire codes.
- b. Ensure all flammable liquids and combustible materials are moved to a minimum of 30 feet from any area where sparks or slag could ignite them. Use of a fireproof tarp is required for coverage of equipment and/or storage that can't be removed. A 10 lb. ABC fire extinguisher is required at each work area. Inspect area 30 minutes after welding or cutting operation has been completed.
- c. Barrels, drums, or tanks will be thoroughly purged with an inert gas before welding or cutting. Using agency is responsible for gas free testing before operation starts.
- d. Machine or arc welding equipment and operations shall conform to the most current edition of the National Electrical Safety Code, OSHA Standards 1910.252, and NFPA 51B (National Fire Codes).
- e. Gas welding and cutting units shall have back flow and back flash arrestors in place. Back flow arrestors, and back flash arrestors, shall be installed in accordance with most current edition of OSHA or manufacturer's directives (OSHA 1910.253 and OSHA Standards Interpretation and Compliance Letter).
- f. Any violations of the Hot Work Permit, work shall be stopped, and the permit shall be revoked.
- g. Fire watch is required at all times, and the assigned individual shall not perform any other work.

18-3. Welding, Cutting, and Related Operations

- a. All welding or cutting operations, and any other type of hot work, other than approved shops, require DES FES notification. Each separate operation, work site, and day of operation will require an inspection and issuance of a Hot-Work Permit.
- b. Where gas cutting torch carts are approved by the CRRB to be stored inside buildings, carts shall be stored in a marked designated area located as far from occupied office areas as possible. Marking shall be yellow in color and on the floor.
- c. Existing buildings turned over to contractors and new buildings under construction which have not been accepted from the contractor are under the direct responsibility of the Contracting Officer Representative and the site contractor for all fire prevention activities.

18-4. Roof Tarring Operations

- a. Roof tarring operations are under the direct control of the COR and will comply with the following:
 - I. Hot Work Permit (DA Form 5383-R) is required. Request for permit will be made 72 hours in advance of beginning operations.
 - II. NFPA 1 and 51B current editions shall be reviewed by the contractors prior to permit issuance. COR is responsible for compliance. Contractor and COR will be briefed by the DES/FES CRRB on NFPA 51B, requirements and additions noted below.
- b. In addition to the requirements of NFPA 1, the following is added:
 - I. Tar buckets, mops, brooms, etc. will be removed from the top of buildings at the end of business. These items shall not be left stored in any building, against any building or within 15 feet of the tar kettle.
 - II. Placement of tar kettle will take into consideration smoke and fume direction and travel, nearest entry into any building, smoke detector location, blocking of emergency access and shall be approved by the DES/ FES CRRB. Tar kettles shall not be located inside or on the roof of any building.

- III. Fire extinguisher placement is as follows:
 - (a) One (1) 20: ABC rated fire extinguisher shall be located within 25 feet of the tar kettle.
 - (b) One (1) 20: ABC rated fire extinguisher shall be on the roof during tarring operations.
- IV. Fire watch is always required.
- V. All gauges shall be operational and calibrated annually.

Chapter 19 Fueling Operations

19-1. Fueling and Defueling Operations

- a. Refer to FM 10-67-1, Concepts and Equipment of Petroleum Operations.
- b. Aircraft: The Fire Department shall be notified of defueling of aircraft and shall standby with firefighting equipment.

19-2. Normal Refueling and Defueling

- a. Do not refuel inside hangars and at least 50 feet from any building. Exception: FM 10-67-1, Chapter 17 requirements, and notification of the Fort Belvoir DES/FES CRRB.
- b. Whenever possible, avoid refueling within 100 feet of drainage ditches or in low spots where combustible mixtures may accumulate.
- c. Under no circumstances shall any ground-powered equipment be parked under any part of the aircraft while the aircraft or the equipment is being serviced for refueling or defueling.
- d. No open flame or open flame devices shall be within 50 feet of oxygen, fuel, or oil-servicing operations.
- e. Defueling shall be accomplished only at approved defuel points.
- f. Abnormal refueling and defueling. Any of the conditions below constitute abnormal refueling and defueling operations. Organizations shall obtain assistance from the DES/FES in abnormal refueling and defueling operations when:

- (a) Servicing personnel are not thoroughly familiar with the type aircraft being serviced.
 - (b) The return to service of a fueling system or servicing unit which has undergone repair and could not be functionally tested before fueling operation. Conditions where it is necessary to service an air-evacuation aircraft while patients are still aboard.
 - (c) Defueling or refueling under exceptional circumstances which may involve hazards beyond the control of the operating personnel. Requirements for such an operation should be coordinated with the Airfield Commander, Airfield Safety Officer, and the Installation Fire Chief or his/her designee.
 - (d) When leaking fuel cells introduce additional hazards to the normal operation of defueling or refueling.
 - (e) Emergency conditions brought about by damage to the aircraft by fire or impact.
 - (f) Defueling under conditions that require draining or transferring fuel into open containers. The draining of residual fuel after a normal de-fueling operation into an approved safety container is not considered an abnormal condition.
- g. Power Units: When auxiliary power units are connected to aircraft for any reason, position the units upwind to the maximum length of the attached cable. If fuel spillage occurs at any time, power units shall be shut down immediately and DES/FES shall be notified immediately.
 - h. Liquid Oxygen Servicing shall only be accomplished by trained supervised personnel. The spilling of LOX (Liquid Oxygen) on any petroleum-based surface, this includes cracks in concrete filled with asphalt or tar, shall warrant immediate Fire Department notification. LOX (Liquid Oxygen) shall not be allowed to run or be washed into any sewer drainage system. This is grounds for immediate shutdown, evacuation and immediately notifying the Fire Department.
 - i. Explosive ordnance: Load or unload explosive ordnance only in areas designated by the Airfield Commander in keeping with quantity-distance tables for explosives. Notify the DES/FES in advance of impending operations, of this type, so that fire protection personnel shall be aware of the hazards involved and follows the airfield SOPs where applicable.
 - j. Vehicles: Defueling of vehicles shall be conducted only in authorized areas. The DES/FES shall be notified before the operation starts.

- k. Park fuel-servicing vehicles on a single line, a minimum of 25 feet apart, 300 feet from any aircraft, and not less than 50 feet from any building structure. They shall be properly grounded at all times (flight line operation).
- l. Aircraft drop fuel tanks that have fuel in them or that have had fuel in them shall not be stored inside aircraft hangers unless they have been emptied and purged.

19-3. Static Grounding

- a. Hospitals are excluded.
- b. Grounding cables shall be manufactured from steel with a minimum of 3/32-inch diameter, or equal, with a resistance of 10,000 ohms. The cable shall never be spliced. Each end of the cable shall be equipped with a device for hooking to a grounding point and aircraft or equipment.
- c. Connect static ground cables to the object to be grounded and then to the ground. This procedure shall allow sparks to occur at the ground and not at the equipment.
- d. Use three-way grounding during all fueling services for aircraft. Grounding shall be from aircraft to ground, from aircraft to refueling truck, and from truck to ground. Nozzles shall be bonded to aircraft.
- e. All aircraft undergoing maintenance on the flight line apron or in the hangars shall be grounded at all times.
- f. An 18-inch diameter circle painted yellow with a 2-inch border painted black shall identify approved static grounding points. The words "Static Ground" shall be stenciled in the yellow area of the circle. The static grounds shall be tested every five years. The Airfield Commander shall maintain a master log of all grounding points with date of test and ohms reading. Defective grounds shall be taken out of service immediately and obliterated, thus preventing their use. Motor pool permanently installed ground rods have the same requirement except the Battalion Safety Officer maintains records of tests and assures compliance with testing directives.
- g. Units required to drive ground rods for any reason shall devise a plan to test driven ground rods for proper electrical resistance; readings greater than 10,000 OHMS shall not be used.

19-4. Shipments Bulk Oxygen Transfers

Hospital: The Fort Belvoir DES/FES shall be notified when the hospital LOX tank is being serviced by vehicle transport tanker at 703-806-6911.

19-5. Fuel Spills

- a. DES/FES shall be notified immediately when a fuel spill occurs involving more than one gallon of flammable liquid.

Chapter 20

Places of Public Assembly

20-1. Scope: The potential for fire injuries, deaths, and high property loss in public assembly locations requires extraordinary precautions to prevent fires. Places of assembly include, but are not limited to, all buildings or portions of buildings used for gathering of 50 or more persons for such purposes as deliberation, worship, entertainment, amusement, eating establishments, or awaiting transportation.

20-2. Training Certification Program:

- a. For places of public assembly, managers shall establish an ongoing training certification program for their employees. Initial employee training and annual certification training, on fire prevention matters, is required to ensure fire safe working conditions exist within buildings and to prevent the loss of valuable property. The Fire Evacuation Coordinator shall develop lesson plans for places of public assembly specifically for this purpose. Facility managers shall develop SOPs specifically for their fire prevention program. Employees must understand their fire prevention responsibilities, fire reporting, facility evacuation procedures, first aid and firefighting procedures as well as individual building fire prevention problems.

20-3. Maximum Patron Capacity:

- a. Maximum capacity in places of public assembly shall be determined by the DES/FES CRRB and enforced by the manager on duty. Capacity determinations shall be IAW the most current edition of NFPA 101. Signs shall be posted at the main entrance to these facilities indicating capacity room by room. Only those areas used by the public shall be considered in this evaluation.
- b. The manager shall notify the DES/FES CRRB when planning social events. These events involve temporary decorations, exceptionally large crowds or any unusual arrangements that change the original approved layout when an occupancy permit was originally issued.
- c. Prior to patrons being present, management personnel shall:
 - I. Check and ensure that all emergency exits are unobstructed, operational, and clearly identified by "EXIT" signs.

- II. Shall be responsible for ensuring that there are aisles of sufficient number and width to evacuate all personnel immediately for emergencies.
 - III. Ensure aisles, corridors, stairways, and passageways are free of obstructions.
- d. Management personnel shall ensure that lighted exit signs are working properly with all required bulbs on a daily basis.
 - e. Emergency lighting systems shall be inspected by management personnel at least every 30 days and inspection documented. Required documented work order numbers shall be available to Fire Prevention Inspectors.
 - f. Use of candles or other open flame devices for decorative or lighting purposes in places of public assembly are prohibited, excluding places of worship.
 - g. All panic hardware used in places of public assembly shall be operational and unlocked when patrons are present in the facility. Security shall not override life safety.
 - h. Carpeting, curtains, and draperies installed in places of public assembly shall be fire resistive as required. The Community Risk Reduction Branch (CRRB) shall review certification to this effect.
 - i. Grease filters in hood and duct systems must be in place with exhaust fan working before and during cooking operations. Either of these items found not in place or working shall result in the cooking area being shut down until replaced or repaired.
 - j. Hood and duct systems located over cooking equipment shall be cleaned on the exterior surfaces daily by using occupants (this includes filters). If more than daily cleaning is required, management shall enforce the policy. Interior ductwork, exiting to the outside, shall be cleaned on a quarterly basis, or more often as required by contract by certified personnel.
 - k. Club managers and dining hall supervisors are responsible for fire suppression system nozzles being directed at installed cooking equipment.

- l. Fire suppression systems installed in hood and ductwork over cooking equipment will be inspected quarterly by the Community Risk Reduction Branch (CRRB). Annually, these systems will be disassembled, lubricated, weight tested, and operationally tested by qualified and licensed personnel.
- m. Installation and protection of restaurant cooking equipment must be according to NFPA 96. Only qualified and licensed personnel shall maintain, repair, test, and recharge extinguishing systems.
- n. Decorative wall covering, wood or vinyl paneling installed in places of public assembly, shall have a flame spread of 0-25 and smoke development rating not to exceed 450. Requests shall be forwarded to the DES/ FES for review and approval prior to installation of wall a covering or wood or vinyl paneling.
- o. All decorations to be used for special events (for example: bunting, banners, artificial floral designs, lighting, and Christmas decorations) shall be approved by and inspected by the CRRB prior to use. Any decoration declared a fire hazard by the Installation Fire Chief or his/her designee shall be removed.
- p. All seasonal or special decorations shall be taken down immediately following the occasion and removed from the building.
- q. Club managers or facility managers shall document interior duct cleaning, annual fire suppression system maintenance, initial training of personnel in fire prevention matters, annual certification thereafter, as well as lighted exit sign maintenance and emergency lighting system work orders.
- r. Managers of public assembly facilities or assistants designated in writing must assure that these facilities are kept fire safe. These managers shall check facilities before opening, during, and at the close of business to ensure that all fire hazards have been eliminated.
- s. Places of public assembly, that have designated outdoor smoking areas, may not use plastic trash receptacles and the disposal of smoking material in plastic trash receptacles is forbidden. All smoking material refuse shall be placed in metal containers.

Chapter 21 Special Hazards

21-1. Decorations-

**(Natural Christmas trees are NOT permitted in commercial occupancies
Residential housing may utilize real trees.)**

- a. All decorations and acoustical materials used on the interior of any buildings and structures shall be of the flameproof type. The use of combustible vegetation (cornstalks, straw, hay, leaves, etc.) for decorations or to provide aesthetics is prohibited, unless approved in writing by the Installation Fire Chief or his/her designee. Documents shall be provided to the FES for approval. This includes tents and camouflage netting.
- b. Such fire retardant shall be demonstrated by each individual decorative vegetation item, including any decorative lighting, in an approved manner.
- c. Furnishings or decorations of an explosive or highly flammable character shall be prohibited.
- d. Artificial vegetation and artificial Christmas trees shall be labeled or otherwise identified or certified by the manufacturer as being fire retardant.
- e. Vegetation and Christmas trees shall not obstruct corridors, exit ways, or other means of egress.
- f. Only listed electrical lights and wiring shall be used on natural or artificial combustible vegetation, natural or artificial Christmas trees, and other similar decorations.
- g. Combustible vegetation and natural cut Christmas trees shall not be located near heating vents or other fixed or portable heating devices that could cause it to dry out prematurely or to be ignited.
- h. Christmas tree placement within buildings shall comply with NFPA 1 or 101.
- i. Where a natural cut tree is permitted, the bottom end of the trunk shall be cut off with a straight fresh cut at least 1/2 in. (13 mm) above the end prior to placing the tree in a stand to allow the tree to absorb water.
- j. The tree shall be placed in a suitable stand with water. The water level shall be maintained above the fresh cut and checked at least once daily.

- k. The tree shall be removed from the building immediately upon evidence of dryness. A method to check for dryness is to grasp a tree branch with a reasonably firm pressure and pull your hand to you, allowing the branch to slip through your grasp. If the needles fall off readily, the tree does not have adequate moisture content and should be removed.

21-2. Fireworks

- a. Fireworks are prohibited on Fort Belvoir. Exception: Supervised displays authorized in writing by the Installation Commander in total compliance with NFPA directives.
- b. Unauthorized fireworks found on the installation shall be seized by the Installation Fire Chief, or his/her designee, or the Fort Belvoir Police.
- c. Any person using fireworks other than in authorized displays may be held financially liable for any loss or damage to government property caused by such use.

21-3. Tentage

- a. Refer to TM-10-8340-211-13, for fire, water, weather, and mildew resistant coating. NOTE: Wet or damp tentage shall not be stored in any building on Fort Belvoir. This includes camouflage netting. Large commercial tents used for special events and outdoor sales shall be certified flameproof by manufacturer's seal and written certification.

21-4. Aircraft Hangars

- a. Upon detection of a fire, alert personnel immediately in the building to evacuate, and notify the DES/FES.
- b. All available aircraft maintenance personnel and equipment will be used to affect the rapid removal of aircraft, if safe to do so. Unit commanders shall develop and exercise an effective aircraft removal plan for each aircraft hangar. Plans shall be coordinated with and approved by the Installation Fire Chief or his/her designee.
- c. All aircraft in hangars shall have batteries disconnected and be effectively grounded if they are not required for maintenance being performed. All grounding points will be tested every five years. Testing grounding points inside aircraft hangars and on the "flight line" is the responsibility of the Airfield Safety Officer.
- d. Do not drive vehicles inside any hangar unless the vehicles are equipped with spark arrestors.

- e. Equipment inside hangars, 18 inches or more above the floor such as electrical equipment and wiring, motors, generators, etc., must meet Class 1, Division 2, NFPA requirements and be UL listed for use in this area.
- f. Electrical and motorized equipment below the 18-inch level will meet Class I, Division I NFPA requirements, (i.e., explosion proof and be UL listed for use in that area). Do not store or use fuel-servicing vehicles inside hangars or other buildings unless such buildings have been specifically designated for that purpose.
- g. Fixed wing aircraft hangars shall conform to current edition of NFPA regulations or any other applicable code/regulation. Helicopter hangars and wind shelters shall conform to current edition of NFPA regulations or any other applicable code/regulation.
- h. DC Power units and cables shall be kept in good repair. Qualified electricians shall make all repairs.
- i. Only parts washers using non-flammable solvents or non-combustible solvents may be used on the hangar floor. SDS (Safety Data Sheets) shall be posted in the immediate area.
- j. Aircraft hangars shall not be used for sleeping personnel.
- k. Fire exits and emergency paths of egress, including corridors and marked paths of egress on hangar floors shall not be used for storage or have obstacles placed in them.
- l. Exterior of aircraft hangars shall be kept clear for emergency vehicle access.
- m. Electrical extension cords, electrical drop lights, and other electrically powered equipment used on hangar floors shall meet Class I, Division I requirements, (i.e., explosion proof).

21-5. Battery Charging

- a. Battery charging facilities shall be located in areas having good natural or properly engineered mechanical ventilation IAW NFPA Standards.
- b. Shelves or benches shall be noncombustible or covered with an insulating and absorption-resisting material.
- c. A supply of absorbent for neutralizing acid spills shall be kept available.
- d. Sulfuric acid in the charging area shall be limited to a one-day supply.

- e. Where gasoline motor driven generators are used, the generator unit shall be located outside the battery room.
- f. Appropriate TMs shall be available and followed.
- g. A fire extinguisher shall be assigned in battery shops or at large charging operations in accordance with the current edition of NFPA 10.

21-6. Vehicle charging Stations.

- a. All vehicle charging stations whether permanently installed in a fixed location or transportable, must adhere to manufacturer recommendations and all current up-to-date fire codes and regulations as set forth.
- b. High voltage battery chargers hardwired into a facility must be approved by DPW and the CRRB. Must be installed by a certified Electrician.

21-7. Electric Personal Assistive Mobility Devices (EPAMD)

- a. All vehicle charging stations whether permanently installed in a fixed location or transportable, must adhere to manufacturer recommendations and all current fire codes and regulations as set forth.

21-8. Open Fires

- a. Open fires are prohibited on Fort Belvoir, except as approved by DES/FES CRRB.
- b. The use of charcoal burners, hibachis, and barbecue grills (gas or charcoal) is permitted subject to the following provisions:
 - I. Supervision by an adult must be always available while in operation.
 - II. Shall not be used inside buildings, on porches or balconies, or within 50 feet of buildings and located safely away from combustibles. When cooking has been completed, hot coals must be doused with water for 24 hours before disposal. Ashes can not be discarded in the woods or trash receptacles.
 - III. One (1) 10 lbs. ABC fire extinguisher shall be always on site.
- c. The use of burning scented candles and incense or similar open flame or glowing coal devices in barracks, and similar sleeping occupancies is prohibited.
- d. Fires in fireplaces, if properly protected by screens, are allowed. Chimney and flue pipes shall be cleaned and inspected annually.

- e. Campfires are permitted and subject to the following provisions:
 - I. Site and pit shall be inspected by DES/FES CRRB prior to approval and issuance of burn permit.
 - II. Bon fires are prohibited on Fort Belvoir.
 - III. Campfires shall be in a portable burn pit with screen to prevent possible sparks that can travel.
 - IV. Fire shall always be in direct attendance and under continuous supervision of an adult.
 - V. Ensure ample water is always available to extinguish the fire.
 - VI. During times of extreme fire hazard conditions or weather, fire pits cannot be utilized.
 - VII. The Fire Chief or representative reserves the authority to allow open fire with approved permit when determined acceptable.
- f. Annual Burn Permits may be obtained from the DES/FES CRRB for areas that require long term operations such as outdoor park grilling areas. The Fort Belvoir Community Risk Reduction Branch (CRRB) will be the deciding official on locations that can obtain an Annual Burn Permit. Annual Burn Permits may be rescinded at any time if conditions are deemed unsafe by an CRRB representative.

Chapter 22
Nursery / Day Care Centers / Youth Centers

- a. Applies to buildings or areas for care and housing of infants or children in a public place for periods of 12 hours or less, including kindergarten and day care centers for children under 6 years of age.

Responsibility:

- a. When a Family Child Care (FCC) facility is operated as an independent activity, the person in charge of the activity is responsible for observance and enforcement of these regulations to include AR 608-10 and NFPA 101, Life Safety Code. When a childcare area is operated in connection with a club, youth center, chapel or similar activity, the person in charge of the sponsoring activity is responsible.

- b. Location and arrangement of Child Development Centers (CDC) shall meet the requirements of AR 608-10; AR 420-1 Chapter 25; NFPA 101, Life Safety Code (except as modified by AR 608-10) NFPA 72, NFPA 13 or any other applicable code/regulation.
- c. Fire prevention inspections and fire drills shall be accomplished IAW AR 608-10 (monthly).

Chapter 23

Laundries and Dry Cleaning

- a. Installation and operation of dry-cleaning equipment shall be IAW the current edition of any applicable NFPA code/standard or any applicable AR.
- b. Laundry employees and management shall be required to schedule annual fire prevention training and shall be documented by management.
- c. Garments shall not be left in tumblers overnight. Articles removed from tumblers shall not be folded and stacked in trucks and/or baskets until allowed to cool sufficiently so that there is no danger of fire.
- d. Laundry superintendents shall make periodic inspections of all equipment where grounding is required and shall make annual tests to determine the continuity of bonding and the effectiveness of the ground. Dates of tests, deficiencies found, and action for correction, and date of correction shall be recorded.
- e. Manufacturers Safety Data Sheets shall be posted on site and available for review in a right to know station.

Chapter 24

Places of Detention / Confinement

- a. Applies to any building where any occupant is in any way prevented by physical or mechanical means from leaving at will at any time. Confinement facilities, psychiatric wards, police departments and hospital prison wards are included.
- b. Plans for evacuation of each confinement building shall be prepared by the Confinement Officer or the person in command of the activity as applicable. These plans shall conform to the following:
 - I. Detail the action of each person on duty and designate alternates in the event of absence.
 - II. Require that fire drills are conducted monthly and duty personnel shall be briefed weekly on their assigned functions in the event of a fire.

- c. Require that confinement areas or rooms be under constant surveillance of an attendant. The attendant shall be prepared and able in the event of a fire, to release the prisoners or patients under his/her care.
- d. Require at least one other person be present, in duty status, and shall have in their possession a list of all persons under confinement, the guards or attendants on duty, and their location in the building. In the event of a fire, prearranged plans will be checked accordingly, with each attendant, to ensure the evacuation of prisoners or patients.
- e. Prohibit flammable liquids being used in any building of confinement during periods when personnel are occupying the building.

Chapter 25

Food Trucks

- a. All Food Trucks utilizing open flames, or any other method of cooking, heating, and warming must have an active Hot Work Permit obtained through the Fort Belvoir CRRB.
- b. Food trucks are required to be inspected on a semi-annual basis. Inspections will be in accordance with NFPA 1, NFPA 58, NFPA 70, and NFPA 96.
- c. All food trucks must have at a minimum of one 10LB dry chemical extinguisher mounted and readily accessible for use.
- d. Any food truck on Fort Belvoir operating without a hot work permit may have operations suspended immediately as deemed by FES until proper inspection has taken place.
- e. If flammable cooking oils are being utilized, a Class K fire extinguisher must be mounted and readily accessible.



14 Jun 23

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US Army Garrison - Fort Belvoir

Appendix A Emergency Evacuation Plans

A-1. Plan Contents

- a. The fire safety and evacuation plans consist of:
 - I. Written Plan
 - II. Floor Plan w/ Evacuation Routes Shown
 - III. Site Plan

A-2. Written Plan

- a. The written plan shall contain the following information and/or procedures:
 - I. Reporting Fire Emergencies: Describe the preferred and any alternative means of reporting fires and other emergencies to the fire department or emergency response organizations.
 - II. Evacuation Procedures & Escape Routes: Designate emergency egress or escape routes, and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only. Explain the life safety strategy and procedures for notifying, relocating, or evacuating occupants, including occupants who need assistance. Describe the preferred and any alternative means of notifying occupants of a fire or emergency, and where provided, include a description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages.
 - III. Accountability of Evacuees: Designate the evacuation assembly area(s) on the exterior of the occupancy. Explain the procedures for accounting for employees and occupants after evacuation has been completed.
 - IV. Emergency Response Duties: Explain the procedures for employees who must remain to operate critical equipment before evacuating, if applicable. Explain the procedures for assisted rescue of persons unable to use the general means of egress unassisted. List the identification and assignment of personnel responsible for rescue or emergency medical aid, if applicable.

- V. Occupancy Hazards: List all major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures. List the identification and assignment of personnel responsible for fire protection systems, maintenance, housekeeping and controlling fuel hazard sources.

A-3. Floor Plan

- a. The building floor plan shall clearly illustrate the following information (see the sample below):
 - I. Location of rooms/suites inside the building (i.e., floor, section, above-grade, below-grade).
 - II. Location of all exit corridors, exit stairs, and exits serving the occupancy.
- b. Primary evacuation routes leading to the designated assembly point (solid lines).
- c. Secondary evacuation routes leading to the designated assembly point (dashed lines).
- d. Accessible egress routes, areas of refuge, and exterior areas for assisted rescue.
- e. Location of all fire alarm and fire suppression manual activation stations.
- f. Location of all portable fire extinguishers.
- g. Location of fire alarm display and/or control panels (if applicable).
- h. Accessible egress route means facilities accessible to persons with physical disabilities.

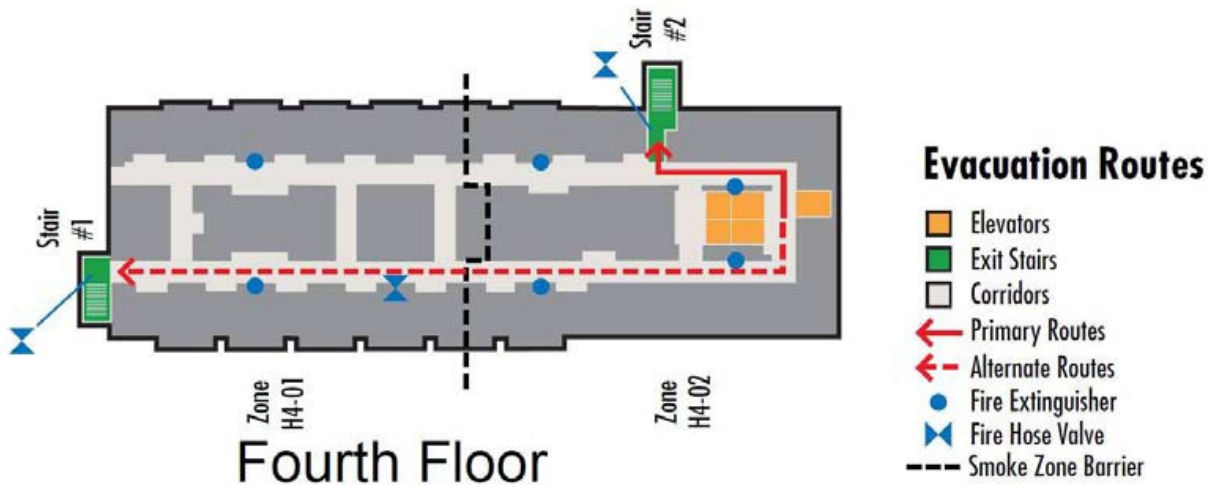
A-4. Site Plan

The site plan shall clearly illustrate the following information:

- Building footprint showing location of all exit discharges serving the occupancy and paths leading to the public way.
- Location of designated evacuation assembly area(s) identified in the written plan.
- Routes of fire department and emergency vehicle access (all sides of building).
- Once you have completed all five sections of the plan, double-check the plan to ensure that all Fire Prevention Code requirements outlined in this publication are addressed. Then, prepare a copy of the plan for review during inspection.

A-5. Availability & Distribution of Plan

- Fire safety and evacuation plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the CRRB for review.



- Fire safety and evacuation plans shall be distributed to the tenants and building service employees by the owner or owner's agent. Tenants shall distribute to their employees' applicable parts of the fire safety plan affecting the employees' actions in the event of a fire or emergency.
- In addition, a copy of the floor plan shall be provided in each elevator lobby, outside each exit stairwell and in every common area of each floor. These floor plans should illustrate the specific location of the sign ("you are here") within the building.

- d. The fire safety and evacuation plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy, or the physical arrangement of the building.

REFERENCES

- a. **29 CFR 1910** Occupational Safety and Health Standards
- b. **AR 190-47**, Section 9-5 Fire Prevention in Detention Facilities
- c. **AR 385-10** Army Safety Program
- d. **AR 420-1** Army Facilities Management
- e. **DOD 6055.6** Fire and Emergency Services Program
- f. **NFPA 1** Uniform Fire Code
- g. **NFPA 10** Fire Extinguisher Code
- h. **NFPA 13** Installation of Sprinkler Systems
- i. **NFPA 25** Water-Based Fire Protection Systems
- j. **NFPA 70** National Electrical Code
- k. **NFPA 72** National Fire Alarm Code
- l. **NFPA 96** Ventilation Control and Fire Protection of Commercial Cooking
- m. **NFPA 101** Life Safety Code
- n. **Unified Facilities Criteria 3-600-01** Fire Protection Engineering for Facilities