DEPARTMENT OF THE ARMY
FORT CAMPELL INSTALLATION
2700 Indiana Avenue
Fort Campbell, Kentucky 42223-5656
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Facilities Engineering

FIRE PROTECTION AND PREVENTION

Contents (listed by paragraph and page number)

This regulation supersedes CAM Reg 420-24 dated 1 November 2013

Chapter 1
Fire Protection (FP) and Prevention General Information

1-1. Purpose
To implement Army Regulation (AR) 420-1, chapter 25 by establishing an effective fire prevention (FP) and protection program to prevent, detect, control and report fires or hazardous conditions or practices that may result in a fire.

1-2. Applicability
The provisions of this regulation are applicable to personnel to include Active Duty Army, Army National Guard (ARNG), United States (US) Army Reserve, members of other uniform services, units, activities, facilities and organizations including tenant, contractors, and privatization civilian personnel assigned, and Family members residing or visiting on the installation. This includes, but is *not* limited to: military personnel regardless of status, military Family members, civilian employees both appropriated and non-appropriated, Army and Air Force Exchange Service (AAFES), concessionaires, contractors, vendors, and visitors while on government property. Failure to comply with this regulation may cause pecuniary or liability charges brought against individuals. Military members that are signed for Family housing quarters will be held responsible for actions of their Family members, guests and domestics. The U.S. Army Reserve units assigned to FC will use this regulation for their respective units. When located on another installation, the regulations of that installation will pertain. This regulation also applies to off-post facilities under the jurisdiction of Fort Campbell (FC).

1-3. References
Applicable references are located in Appendix A.

1-4. Explanation of Abbreviations and Terms
Abbreviations and terms used in this regulation are explained in the glossary.

1-5. Supplementation
Issuing of supplements to this regulation is prohibited unless specifically approved by Commander, 101st Airborne Division (Air Assault) and Fort Campbell, Kentucky.

1-6. Administrative Notes
The word “shall” in this regulation indicates a mandatory requirement. The word “should” in this regulation indicates a recommendation or that which is advised but not required.

1-7. Summary
a. Cause of fire. Fires are caused by lack of knowledge, carelessness and direct violations of two basic principles of FP:
(1) The elimination of the source(s) of ignition.
(2) The removal of the means of supporting combustion.
b. Responsibility. Fires are preventable unless caused by an act of God. In all cases where competent investigation reveals that a fire was the result of any degree of negligence or failure to exercise normal prudence on the part of an individual or individuals, or is indirectly due to supervisory

failure, disciplinary measures, if appropriate, will be imposed and action will be initiated to recover loss from the person responsible.

c. Personnel assigned quarters are responsible for compliance with this regulation by members of their Families, guests, and domestic employees and are pecuniary liable for any property damage resulting from the acts or failure to act where evidence establishes that the occupant, under the circumstances, failed to exercise due care.

1-8. Action

Each individual will be fully aware of the contents of this regulation for their own protection and every supervisor, regardless whether civilian or military, will read and understand those portions pertinent to their assignment. Personnel under these supervisors must be briefed at least quarterly and recorded. This briefing may be done during routine safety briefings. In addition, any person having knowledge that may assist in determining the cause of or responsibility for a fire, is charged with the duty of furnishing this information without delay to the Fire Chief of FC regardless of whether or not it was requested.

1-9. Fire Prevention Assistance and Reference Material

Upon request of appropriate individuals, fire inspectors (FI) will make courtesy visits of unit areas to assist in resolving problems connected with FP training. The US Army has adopted the most current National Fire Protection Association (NFPA) codes and standards. Referenced publications listed in this regulation are available for review in the FP Library located at building 6931 Desert Storm Ave.

1-10. Individual Responsibility

Each individual on the military reservation is responsible for taking precautions and for exercising judgment in the performance of their duties. Lack of instruction or warning concerning fire hazards will *not* excuse acts involving conditions, practices, or materials commonly recognized as dangerous.

a. Personnel serving in a supervisory capacity are directly responsible for maintaining the area in which their employees operate in accordance with (IAW) this regulation. Supervisors will instruct employees in safe operating practices, how to recognize hazardous conditions *not* specifically covered in this and other fire regulations, and in removing or reducing the danger.

b. While occupying quarters with minor children, the adult personnel in charge are liable and responsible when it can be shown that reasonable precautions were *not* taken to prevent damage to property by children, or that reasonable discipline and control were *not* exercised.

c. Upon receipt of a Fire Inspection Report on a hazardous condition, personnel are required to make the correction, or to deliver the notice to a person authorized to do so. Notify the Fort Campbell Fire Prevention (FCFP) Office to conduct a re-inspection. In the event the correction cannot be accomplished within the time specified or the directive is unreasonable or impractical, a request for additional time or an exception to policy, in writing, will be made to the FCFP Office within that time. Once started, corrective work will be diligently carried out.

1-11. Director, Activity Chief, Commander and Facility Manager Responsibilities

Comply with the FP program IAW AR 420-1, chapter 25, and this regulation.

a. Ensure all activities and organizations have established Standard Operating Procedures (SOP) which contain FP procedures to include reporting of fires and an evacuation plan.

b. Conspicuously post evacuation plans on facility bulletin boards and maintain them in a safety folder.

c. Ensure evacuation diagrams show primary and secondary evacuation routes for every building. Activities and organizations must conduct surveys to ensure every possible precaution is taken to prevent fires.

d. Appoint in writing, a Fire Coordinator IAW AR 420-1, chapter 25, section VII, and this regulation.

1-12. Installation Fire Marshal Designation

By order of the Garrison Commander, the Fire Chief is the installation Fire Marshal and is assigned full responsibility for fire protection and prevention activities. In matters pertaining to these activities, the Fire Marshall will act for, and will be responsible directly to the Director of Emergency Services and the Garrison Commander.

1-13. Fire Chief

In addition to the duties stipulated in AR 420-1, chapter 25, the Fire Chief will:

a. Be responsible for firefighting operations and will *not* be interfered with in any manner.

b. Be responsible for changes, deletions, and/or additions to this regulation, and for preparing necessary amendments for approval of DES.

c. Furnish technical assistance to facility manager.

d. Review fire plans for adequacy and practicality.

e. Coordinate plans for firefighting and control with other installation elements and for maintaining memorandums of understanding and mutual aid agreements.

1-14. Authority to Commandeer

The Fire Chief or their senior subordinates in charge at the scene may commandeer any available vehicles, personnel, equipment, and/or materials that may be considered necessary (in an emergency) for the prompt control and safe termination of any incident that deems this action.

Chapter 2
Life Safety

Section I
Reporting Procedures

2-1. Actions to Take in the Event of Fire

a. All fires, including extinguished fires, must be reported immediately **via 911**.

b. All personnel must be familiar with fire exits and fire extinguishers in their assigned work area and the procedures outlined in this regulation.

c. Supervisors are responsible for establishing a rally point *no* closer than 100 feet from the building being evacuated.

d. The following are the sequence of actions to take upon detecting a fire:

(1) Sound alarm by either verbal or mechanical means.

(2) Dial 911 from any telephone and give the following information:

(a) Name, building number, and specific location of the fire in the building.

(b) Identify what is burning: electrical, trash, machine, etc.

(c) Report any known casualties. **NOTE:* Caller will stay on the line if feasible until released by the operator.

(3) Personnel may attempt to control the fire using portable fire extinguishers. ****NOTE:* No attempt should be made to fight a fire which is obviously too large to control**.

(4) Wait outside the building to direct responding firefighting crews to the site of the fire.

(5) Security custodians may take action to secure classified material if feasible.

(6) Personnel will immediately leave the building and report to the designated rally location. Exercise caution and keep clear of emergency vehicles.

(7) At the rally point, the senior supervisor will determine if there are any personnel missing. Personnel *not* accounted for will be reported to the Senior Fire Officer (SFO) at the scene. All personnel will remain at the rally point until released by the SFO.

e. Supervisors at all levels must ensure all personnel under their jurisdiction are familiar with the procedures outlined in this regulation.

Section II
Exits

2-2. Restrictive Hardware

a. Padlocks and hasps, throw-bolts, and crossbars shall *not* be installed on any door except as permitted by NFPA 101.

b. Where either physical or classified security is a major concern, judicious use of a two-point (top and bottom) latching panic hardware, without exterior door operating hardware, is an effective measure. Such doors, particularly when not normally under direct observation by operating personnel, may also be provided with simple effective door alarm devices as an additional control measure.

2-3. Padlocks and/or Hasps

a. Padlocks and/or hasps are *not* permitted on interior or exterior doors, except for storage or industrial occupancies, unless arranged to be locked in the open position.

b. Occupants of these types of buildings and/or rooms should be able to unlock doors from the inside without using a key.

2-4. Exit Illumination

a. Exit illuminations shall comply with NFPA 101.

b. It shall be the building occupants' responsibility to place a service order to the Directorate of Public Works (DPW) for any type of repair.

c. Signs should be numbered for identification for service order purposes.

2-5. Stairs and Stairways

a. Stairs and stairways shall comply with NFPA 101.

b. Do *not* use stairway enclosures for storage or for any purpose other than a stairway exit egress.

c. Protect openings to stairwell enclosures by self-closing doors. Do *not* hold stairway doors open by wedging, blocking, or by any other device which prevents the doors closing automatically unless specifically designed.

2-6. Doors

a. Personnel shall *not* obstruct the normal operation of fire doors.

b. Removal of door closures (i.e. self-closures) shall be *prohibited*.

c. Removal of fire doors shall be *prohibited*.

d. Approved fire doors shall *not* be altered or modified.

e. No exit door shall be locked while the building is occupied.

2-7. Emergency Lighting

a. Emergency lighting shall comply with NFPA 101.

b. It shall be the building occupants' responsibility to place a service order to DPW for any type of repair.

c. Lights should be numbered for identification for service order purposes.

Section III
Means of Egress for Both New and Existing Buildings

2-8. General

a. Means of egress for both new and existing buildings shall comply with NFPA 101.

b. An exit is a continuous and unobstructed way of travel from any point in a building or structure to a public way. An exit consists of three separate and distinct parts: (1) the exit access, (2) the exit, and (3) the exit discharge.

c. A means of egress comprises the vertical and horizontal travel and includes intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, elevators, enclosures, lobbies, escalators, horizontal exits, courts, and yards.

d. An additional exit or exits that are designed, located and arranged in strict conformance with NFPA 101 shall be provided whenever it is necessary to block, obstruct, or rearrange any existing exit in a manner which destroys or reduces its function.

2-9. Accessible Means of Egress

a. A means of egress provides an accessible route to an area of refuge, a horizontal exit, or a public way.

b. A means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency.

c. Furnishings, decorations, or other objects shall **Not** obstruct exits, access to, egress from, or visibility.

d. No obstruction by railings, barriers, or gates shall divide the means of egress into sections appurtenant to individual rooms, apartments, or other occupied spaces. Where the authority having jurisdiction finds the required path of travel to be obstructed by furniture or other movable objects, the authority shall be permitted to require that such objects be secured out of the way or shall be permitted to require that railings or other permanent barriers be installed to protect the path of travel against encroachment.

e. A proper means of egress allows unobstructed travel at all times. Any type of barrier including, but *not* limited to, the accumulations of snow and ice in those climates subject to such accumulations is an impediment to free movement in the means of egress.

Section IV
Fire Safety Equipment

2-10. Tampering With or Destroying any Fire Emergency Safety Equipment

a. Knowingly tampering with or destroying any fire emergency safety equipment (i.e. smoke detectors, fire alarm pull stations, fire alarm panels, automatic sprinkler system or any part of, fire extinguishers, fire hose, etc.) is punishable by the following laws:

(1) Kentucky Revised Statutes (KRS) 512.040-Criminal Mischief in the Third Degree: Class B misdemeanor punishable by 90 days in confinement and $250 fine.

(2) Tennessee Code Annotated (TCA) 39-14-408-Class A misdemeanor punishable by 11 months 29 days confinement and $500 fine.

2-11. Smoke Detectors

a. Commanders and supervisors shall ensure that all subordinates are knowledgeable of the policy regarding smoke detectors and fire alarm systems.

b. Building managers, and any other responsible individual as designated in writing by the unit commander, will be trained in the proper procedure for testing and maintaining local battery operated smoke detection devices.

c. Any unauthorized individuals tampering with, destroying, or causing malfunctions to fire alarm systems will be held accountable for their actions.

d. If a smoke detection device continually malfunctions and efforts to correct the problem fail, a service order should be called in to the DPW Service Order Desk at (270)798-1200. Units and activities are responsible to ensure keys are available during all hours for each individually locked room to allow fire department (FD) personnel to perform checks as needed.

e. Battery operated smoke detectors shall be tested *not* less than once monthly.

f. Where battery operated detectors are used, replace batteries every six months.

g. Submit a work order for repair or replacement when detectors are inoperative.

h. Disabling, removing or modifying smoke detectors for any reason is **strictly prohibited.**

Chapter 3
Construction, Alterations and Modernization

3-1. General

a. No change or alteration shall be made to any building or structure, whether new or existing, without first coordinating with DPW and the FCFP, through proper channels.

b. Construction projects shall be coordinated with DPW or United States Army Corps of Engineers (USACE) and reviewed by the FP Office during the design phase. This process shall be completed prior to bid advertising or authorization to proceed with construction.

c. All self-help projects shall follow the same fire protection criteria as other construction and must be submitted on a DA Form 4283, Facility Engineering Work Sheet.

d. Fire protection engineering is required in all repair and construction projects to limit the spread of fire and to save lives and property. Fire protection systems and construction shall comply with applicable standards, laws, and regulations, Department of Defense fire protection policies, United Facilities Code (UFC) 3-600-01, NFPA standards, FC Design Guide, and Appendix G of this regulation. To do this, the engineer must work closely with FP Office. The FP Office shall review all plans and specifications prior to construction and/or renovation prior to design approval.

e. Special emphasis shall be placed on providing adequate fire protection in facilities that are highly susceptible to loss of life and those that house high-value or mission-essential processes or equipment.

f. Any work that shall affect the operation of an installed fire alarm system shall be coordinated with the Fire Chief and/or Central Dispatch.

g. If work requires the disabling of fire protection systems it must be coordinated through the project contracting officer representative (COR) or USACE.

h. Subcontractors are subject to the same fire protection requirements as the prime contractor. It is the responsibility of the prime contractor to brief all subcontractors and ensure compliance with all fire protection guidance.

3-2. Guidelines

a. See Appendix G, Minimum Fire Protection and Prevention Guidelines for Construction, Alteration, and Modernization Projects.

3-3. Fire Inspections of Construction Projects

a. Periodically during construction, a FI may perform unannounced spot checks to ensure proper fire safety procedures are being followed to safeguard government property and personnel.

b. During these inspections, the FIs will relay any deficiencies to the COR or USACE responsible for the project.

c. FIs will *not* contact the contractor, unless there is an immediate life safety issue.

3-4. Acceptance Inspections

a. The request for Acceptance Tests shall be submitted to the FP Office by the COR or USACE 7 days in advance of the final acceptance test.

b. The Fire Chief or a designee will attend all acceptance inspections to include both pre-final and final.

c. All systems and features will be tested IAW the fire codes and standards set forth.

d. The contractor will conduct functional tests of all fire protection systems and features.

e. A NFPA 72 Fire Alarm and Emergency Communication System Record of Completion will be provided by the contractor.

f. The FP Office will have the authority to accept or disapprove fire protection systems and/or features prior to final acceptance.

g. The FP Office has the authority to deny occupancy until deficiencies are resolved.

h. Under the direction of the Fire Protection Engineer Designer of Record, the contractor shall pretest all systems ("Preliminary Tests") prior to conducting the "Final Acceptance Test". The system(s) shall be subjected to complete functional and operational performance tests including complete tests of each installed device required to be tested during the Final Test. If deficiencies are found, contractor shall make corrections and retest the system to assure that it is functional, prior to the scheduled Final Acceptance Test.

i. Under the direction of the Fire Protection Engineer Designer of Record, and in the presence of the authority having jurisdiction (AHJ), the contractor shall conduct the Final Acceptance Test. Each system shall be subjected to complete functional and operational performance tests including complete tests of each installed device required to be tested during the Final Acceptance Test. If deficiencies are found, testing will stop, and the scheduling process shall start again (meaning: Contractor shall be responsible to coordinate new schedule, in writing, with the FCFP Office, at least 14 days from that point).

j. Preliminary Test results shall be provided to FCFP Office within seven days before the Final Test and the inspection to be witnessed by this office. All as-built drawings, manuals and information shall be provided to FCFP Office seven days prior to the Final Acceptance Test and Inspection to be witnessed by this office. Perform and record all test results and what is required by all applicable codes and manufacturer to include by not limited to NFPA 72 Section 10, UFC 3-600-01, UFC 1-010-01, UFC 4-021-01, UFGS 28-31-76 (13859), and applicable codes and standards. Contractor shall furnish all equipment, instruments, and personnel required for tests.

3-5. Interior Finish Materials Installed as a Part of Change

a. Alterations, modernization projects and movable partitions shall be IAW UFC 3-600-01 criteria.

b. Fire retarding chemicals listed by recognized testing laboratories may be considered for treatment of existing interior finish materials.

3-6. Contracting Officers

a. Contracting officers shall include a statement in special contract requirements of construction project solicitations and contracts substantially as follows:

b. Fire protection contractors shall comply with fire protection standards and regulations in performance of work on the job site. A copy of this regulation may be viewed by prospective offers at the contracting office. In case of conflict with contract plans and specifications, nothing contained in this regulation shall be construed as altering them without prior coordination with and approval by contracting officer.

c. Installation FP Office shall be notified in writing of all pre-construction conferences, pre-final inspections, and final inspections.

Chapter 4
Draperies and Decorations

4-1. Furnishings and Decorations in Building Occupancies
Furnishings and decorations shall comply with the requirements of NFPA 101.

4-2. Burning Candles and/or Similar Open-Flame Devices
Open flame devices are *prohibited* in all government owned buildings, barracks, bachelor officer quarters (BOQ), Family Child Care, Child Day Care centers and similar sleeping occupancies. Special permission may be granted for special religious ceremony when submitted in writing to the Fire Chief.

Chapter 5
Care and Use of Facilities

5-1. Housekeeping
a. To prevent a fire hazard, wastebaskets will be emptied daily or whenever an overflow condition exists. Building occupants having contract janitorial services will also comply.

b. Ashtrays will *not* be emptied into trash containers.

c. Rags will be kept in covered metal containers marked **"CLEAN"** or **"SOILED"**, as appropriate. Containers will be emptied as required.

(1) When bundles or boxes of clean rags are opened, the contents will be immediately placed into a covered metal container.

d. Debris, sawdust, sweepings, and/or trash will be placed in covered metal containers and removed from the building at the end of the day or shift. The cover and side of the trash containers will be marked "**TRASH ONLY"**. Under *no* circumstances will sawdust or sweeping compounds be used as an absorbent material for fuels, oils, or other flammable liquids. Only approved absorbents will be used.

e. Only approved sweeping compounds will be used. Containers of sweeping compound that have been opened for use will be stored in the original containers, with a lid, except bags or sacks, which will be stored in a closed metal container.

f. Materials will *not* be stored under or piled against the buildings or in front of doors and exits, unless approved by the installation Fire Chief or their representative.

g. Janitor closets will *not* be used as trash collection points. Closets will be kept clean and used for janitorial supplies only.

h. Mops, cleaning gear and other material subject to spontaneous ignition shall be kept outside of buildings or stored in metal containers with tight-fitting self-closing lid.

i. Lint will *not* be allowed to accumulate at any time in or around clothes drying units. Lint traps on dryers must be cleaned after each use to preclude excessive accumulation. Dryers will be vented to the outside of the building. Avoid excessive length of vertical runs of vent pipe to reduce lint accumulation in piping.

j. Floors and office furniture will *not* be cleaned with volatile flammable liquids.

k. When storing materials, ensure clear aisles are maintained as approach ways for firefighters and for easy access to firefighting equipment.

l. Maintain a 36" clearance around furnaces, water heaters, and other heat producing appliances.

5-2. Rubbish and Debris
a. Police working and storage areas, new construction, and repair areas regularly to reduce fire hazards.

b. Dispose of rubbish and scrap materials in properly identified non-combustible cans, bins, or receptacles. Remove rubbish from buildings at the close of the normal workday and take to locations approved for rubbish disposal or for temporary storage. Keep work areas reasonably free of combustible debris accumulation. Remove more often if needed.

c. Use only metal containers or nonmetallic containers that are approved by a nationally recognized testing laboratory for disposal of combustible trash or rubbish inside buildings. Cardboard or wooden boxes are *prohibited*.

d. Store soiled rags in metal containers with tight-fitting, self-closing metal covers until removed from building IAW section 5-1.c. above.

e. Store steel wool and other combustible metals separately in covered metal containers.

5-3. Trash Dumpsters and Trash Pickup Stations

a. Dumpsters will *not* be placed:
(1) So as to block egress from designated exits.
(2) So as to block FD access.
(3) Closer than 15 feet of any combustible structure or building.
b. Loading doors and lids on dumpsters will be left in the closed position.

5-4. Blue Recycle Paper Containers (Wheeled)

a. Blue recycle paper wheeled container units may be placed inside with the following restrictions:
(1) Containers will *not* be placed in any corridors, paths of egress, or egress accesses.
(2) Containers will *not* be placed in stair wells or under stairs.
(3) Containers will *not* be placed in mechanical rooms, communications closets, or like areas.
(4) Container lids shall be kept closed, except when refuse is being loaded into dumpster.
(5) Empty containers on regular bases to eliminate over flow.

5-5. Personnel Service Rooms

a. Metal or Underwriters Laboratory (UL) listed plastic trash receptacles with self-closing lids shall be used in all restrooms, latrines and in other areas where paper towels and disposable paper or plastic cups are used.

b. Clothing lockers shall be adequately ventilated and kept in a clean and orderly condition. Work clothing in lockers should be regularly aired and cleaned.

c. Flammable liquids, chemicals, paints, paint-soaked rags, and similar materials shall *not* be kept in clothing lockers.

d. Combustible materials shall *not* be placed on radiators, heaters, or steam pipes.

5-6. Building Service Rooms

Boiler rooms, mechanical equipment rooms, electrical vaults, fire suppression equipment rooms, communications rooms, and machinery rooms will *not* be used for storage or any purpose other than that for which they were designated. These rooms will be kept locked at all times when *not* in use to prohibit unauthorized entry.

5-7. Attics and Concealed Spaces

a. Attics and concealed spaces shall be kept clean.
b. Attics without sprinklers in other than Family quarters shall *not* be used for storage.

5-8. Sleeping Areas

a. Using buildings or portions of buildings, other than approved barracks or quarters, as sleeping facilities is *prohibited*, except upon written approval by the Fire Chief or authorized representative. Reserve Center buildings are exempt from this requirement provided areas comply with the requirements of NFPA 101 and adequate hard-wired smoke detectors are provided for early warning detection.

b. Using attic space in any building, including quarters, as a sleeping area is *prohibited*.

c. Using space in any building accessible only by scuttle, hatch, or trap door, or served by other than a standard stairway, as a sleeping area is *prohibited*. The use of below-grade basement areas for living and sleeping is only permitted when there is a second means of escape in compliance with NFPA 101.

5-9. Special Occupancies

a. Nurseries, Kindergartens, Daycare Centers and first grade occupancies shall *not* be located in a basement or above the first floor, except under special conditions where the Fire Chief grants approval.

b. Full compliance with NFPA 101 and AR 608-10 is required.

5-10. Changing Occupancy or Use

The Installation FP Office and the Fire Chief shall review changes in the use of occupancy of any building, structure, or area. Any building or structure change that results in a change from one occupancy classification to another, or from one occupancy sub classification to another sub classification of the same occupancy, shall be permitted only if such building or structure conforms with the requirement of NFPA 101.

5-11. Securing Buildings at Close of Workday

a. Buildings shall be secured properly at the close of working hours unless accepted in writing by the Installation Commander or authorized representative.

b. The person in charge shall shut off and unplug portable electric appliances and heating devices that are *not* required to be kept in operation during the night at the close of work hours.

c. Exit doors shall *not* be secured in any manner that would prevent their use as an exit when the building is occupied.

d. Unused paints, brushes, drop cloths, rags, and like items shall be removed from buildings at the close of the workday. An exception is in paint shops where precautions are taken daily to store paints and related supplies. Any material left at the job site shall be placed in a metal container with tight-fitting self-closing lid and placed at least 15 feet from the building. Trash and other waste material shall be removed daily at end of working day.

e. Soiled rags used in connection with repair shops, painting, or other such operations, shall be removed from the building or placed in a metal container IAW section 5-1.c. above.

5-12. Vacant Buildings

a. When using agencies permanently vacate a building, they will promptly notify the FP Office.

b. Vacant buildings shall be secured against unauthorized trespass. Doors shall be locked and windows barred with wood or fixed shutters to prevent access, where necessary.

c. Electrical power to vacant buildings shall be shut off by either disconnecting the incoming power lines outside the building, opening main or all distribution power master switches. If possible, secure power switches with padlock. Power for fire alarm systems and support of sprinkler systems shall be maintained.

d. Fuel inlet valves shall be closed and sealed on furnaces, boilers, and other means of heating in vacant buildings where heat is not required to prevent freezing of sprinkler system or plumbing.

5-13. Storage Buildings

a. Storage building may present a risk with in close proximity to other structures.

b. The minimum separation distances between buildings should be determined using the table 1 below.

Number of stories likely to contribute to flaming through the roof.	Horizontal separation distance or height of protection above exposing fire.	
	Meters	Feet
1	7.5	25
2	10	35
3	12.5	41
4	15	49

Table 5-1, Distance Table

5-14. Aircraft Hangars

a. Refueling or defueling of aircraft in hangars is *prohibited.*

b. Fire lanes will be established in hangars and shop areas, and will remain clear of equipment at all times.

c. Housekeeping will be maintained at the highest level in hangars and shops associated with aircraft maintenance.

d. Electrical motors, switches, fixtures, extension lights, and similar devices used within the hangar will be of approved type in compliance with National Electrical Code (NEC).

e. Approved drip pans will be placed under aircraft in hangars and under other units or parts of aircraft that are likely to drip.

f. Fueled aircraft shall only be authorized in hangars equipped with proper fire protection features and meet all required electrical classifications.

g. Static ground points are located throughout the hangar. The grounding point shall be marked by a yellow circle 18" in diameter and include the date tested and the reading in ohms. The border around the yellow circle consists of two (2) inch black border with the words: **"STATIC GROUND CONNECTION"**.

h. Precautions shall be taken to ensure ready access to hangars from all sides. Adequate separation shall be provided to reduce fire exposure between buildings. The clear space of 50' shall not be used for the storage or parking of aircraft or concentrations of combustible materials, nor shall buildings of any type be erected therein.

5-15. Parking of Vehicles

a. Parking of vehicles shall be controlled to ensure free access of emergency response equipment to all sides of buildings, structures, fire alarms, post indicator valves, fire department connection (FDC) and fire hydrants.

b. Vehicles will *not* be parked closer than 15' of any building or structure, except while loading or unloading.

c. Vehicles will *not* be parked between buildings or structures that are *not* separated by a distance of at least 50'.

d. Vehicles will *not* be permitted in any building for repairs or storage, except for approved maintenance buildings or with written approval of the Fire Chief.

5-16. Fire Department Access Roads

a. Roads or other means shall be developed to allow access and operational setup for firefighting apparatus. FD access roads shall be provided and maintained IAW NFPA.

b. FD access roads shall be provided IAW NFPA for every facility, building, or portion of a building hereafter constructed or relocated.

c. The requirements of NFPA may modified by the AHJ when there are *not* more than two (2) each one- and two-family dwellings or private garages, carports, sheds, and agricultural buildings.

d. FD access roads shall have an unobstructed width of *not* less than 20' (6.1 m) and an unobstructed vertical clearance of *not* less than 13' 6".

e. Vertical clearances or widths shall be increased when vertical clearances or widths are *not* adequate to accommodate fire apparatus.

f. The required width of a FD access road shall *not* be obstructed in any manner, including by the parking of vehicles.

g. Plans for major changes or closing of roadways shall be coordinated with the Fire Chief.

Chapter 6
Smoking

6-1. Prohibited Smoking Areas

a. Smoking is not authorized in DA occupied workplaces, except for designated smoking areas, as authorized by DODI 1010.15, Smoke-Free DOD Facilities. The workplace includes any area inside a building or facility over which DA has custody and control, and where work is performed by military personnel, civilians, or persons under contract to the Army.

d. Smoking is not permitted where it presents a safety hazard, such as at firing ranges, ammunition storage areas, fuel dumps, motor pools, and equipment maintenance shops.

6-2. Designating Smoking Areas

a. Smoking areas will be designated and approved by the unit commander or director. Request shall be submitted in a memorandum format and include a sketch showing the proposed smoking area outlined in red. Requests will be returned to the requester either approved or disapproved.

b. Designated areas will be at least 50' from common points of ingress and/or egress and will *not* be located in areas that are commonly used by nonsmokers.

c. Smoking in barracks in prohibited.

6-3. Authorized Smoking Areas will Conform to the Following

a. The smoking areas must be properly identified as a smoking area.

b. In areas where smoking is permitted, noncombustible ashtrays shall be provided.

c. Place smoking material dispensers at least 50' from exits.

d. Empty butt cans when half full and soak contents with water prior to disposal in outside dumpster.

e. Supervisors will inspect areas at the end of each shift to ensure all smoking materials have been disposed of properly.

6-4. Signage

If locally manufactured signs are *not* in use, DA Form 5560, No Smoking, and DA Form 5560–1, Designated Smoking Area, will be used to restrict tobacco use. These forms are available electronically on the Army Publications Directorate website https://armypubs.army.mil/.

Chapter 7
Common Hazards

7-1. Heat

a. All building heating equipment shall be labeled and/or listed by the American Gas Association, UL, or Factory Mutual (FM) and shall be installed, maintained, and operated under the approval listings, manufacturers operating instructions, and the NFPA.

b. There shall be adequate clearances between heating equipment and combustible material clearances according to the equipment manufacturing instructions. Existing unlisted equipment shall be governed by the clearances indicated in the NFPA.

c. The use of unventilated hydrocarbon-fueled heating appliances inside buildings is *prohibited*. Hydrocarbon fuels include natural gas, gasoline, fuel oil, alcohol and petroleum based oils and kerosene. Duct-type portable gasoline-fired heaters (e.g., Herman Nelson or similar models) are *not* authorized for heating any building unless prior approval is obtained from the Fire Chief and only if the use is temporary and held to a minimum. These types of heaters are designed for outside operation and are intended primarily for field uses such as heating large tents, maintenance shelters, operator's compartments for tactical vehicles, and preheating aircraft engines or keeping them warm during idle periods.

d. Using open flame heating devices is *prohibited* in areas subject to accumulation of flammable vapors such as gasoline stations, garages, paint shops, and aircraft hangars. The only authorized exceptions are the installation of suspended oil furnaces and gas-fired unit heaters when the use, location, and installation of such equipment is permitted by specific provisions of pertinent sections of the NFPA and the unit is specifically listed and/or approved for such installation.

e. Mechanical and equipment rooms, including boiler and furnace rooms, shall *not* be used for offices or storage. Secure rooms from unauthorized entry.

7-2. Space Heaters

a. Portable electric space heaters are generally *prohibited* for energy conservation purposes.

b. Criteria for space heater use can be found in Fort Campbell Regulation (CAM Reg) 420-5, Energy Conservation and Facility Maintenance Programs. Such heaters, when permitted, shall be listed and shall be of a type in which the electrical circuitry is automatically shut off if the unit is tipped over.

c. Power supply cords and plugs shall be in good condition and the supply circuit shall be adequate for safe use.

d. Space heaters must be plugged into a wall outlet. Extension cords are *not* allowed.

e. Space heaters must be unplugged at the end of the shift and/or duty day and shut off when *not* attended.

f. Space heaters will *not* be plugged into multiple type outlets such as power strips.

g. Space heaters will *not* be used within 3' of combustible materials (paper products, etc.).

h. Space heaters will *not* be used in hazardous environments or where flammable, chemical, or munitions atmospheres present an explosive or fire danger.

i. Space heaters will *not* be plugged into system or modular furniture.

7-3. Electrical Requirements

The current edition of NFPA 70 shall be the minimum standard for all electrical wiring and equipment.

a. Only authorized electricians shall install, repair, and charge electrical wiring, fitting, or attachments for electrical appliances.

b. Authorized electricians shall report defective electrical equipment to the DPW Work Order Branch for repair or removal.

c. Use only electrical appliances and devices that bear the UL-label or those listed by other approved testing agency. Appliances or devices that do *not* have the UL-label or other approved listing (e.g.,

decorative lamps and small electrical appliances acquired in Europe and the Orient) shall *not* be connected to a power source.

d. All electrical wiring equipment and devices shall be UL-listed for the particular hazardous area and comply with NFPA 70. This Includes electrically operated vending machines, water coolers, clocks installed and operated in aircraft hangars, automotive repair shops, and other occupancies where flammable vapors, gases or dusts may be present.

e. Soldering irons, hot plates, coffee makers, office machines, and other unfixed electrical devices shall be turned off when *not* in use. There shall be adequate clearance between all heat-producing electrical devices and combustible material.

f. Fusing of circuits shall be compatible with the safe current-carrying characteristics of the circuit wire (i.e., circuits shall *not* be overused). Ground-fault-circuit interrupters shall be provided for receptacles IAW NFPA 70.

g. Electric switches, circuit breakers, and fuses in power panels shall be labeled correctly to indicate the circuits or devices they control. Provide continuously clear access to all panels.

h. Materials will *not* be placed or stored within 36" of electrical panels, air compressors, or motors.

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

j. Circuit breakers will *not* be taped, wired, or blocked in the "on" position.

k. Lamp fixtures in damp or hazardous locations and in areas subject to grease accumulation (such as under hoods over cooking ranges and fryers shall be of types specifically approved for such locations.

l. Not more than two electrical cords per outlet are permissible.

m. When utilizing electrical outlets attached to system and/or modular furniture, do *not* exceed the available amperage.

n. The screw-type outlet that fits into light fixtures is *prohibited*.

o. All domestic-type washing machines, clothes dryers, vending machines, portable electric tools, and lights shall be electrically grounded IAW NFPA 70.

7-4. Extension Cords

a. Extension cords shall be without splices and shall *not* be hung over nails, rafters, or in a manner which would constitute a fire hazard. Extension cords shall not be placed under rugs, carpets or other combustible materials.

b. Extension cords shall *not* be used in lieu of permanent wiring and shall not run through walls, ceilings, floors, doorways, windows, or other similar openings. Extension cords shall *not* be equipped with more than one male and one female connection.

c. Do *not* run extension or flexible cords through holes in walls, ceilings, floors, doorways, windows, or similar openings or concealed behind building walls, ceilings, or floors.

d. Do *not* place electrical cords across aisles or places where they may be walked on, unless they are equipped with an approved electrical cover installed in such a way as to prevent friction or rubbing of cord.

e. Extension cords may *not* be plugged into power strips or other extension cords.

7-5. Multi-Adapters, Surge Protectors and Power Strips

a. A surge protector is an appliance designed to protect your computer and other equipment from voltage spikes. The standard voltage in most outlets in US offices is 120 volts. If the voltage rises above 120 volts, a surge protector helps prevent the increase from ruining your computer and its components. Many power strips have basic surge protection built in; these are typically clearly labeled as such. Power strips that do *not* provide surge protection are sometimes erroneously referred to as "surge protectors". Daisy-chaining of surge protectors is prohibited.

b. The devices must be listed by an approved testing laboratory and serve only low amperage equipment.

c. Appliances shall *not* be plugged into surge protectors.

d. Power strips shall be UL listed and equipped with an integrated circuit breaker.

7-6. Air Conditioning and Air Handling

a. Air conditioning and air handling equipment rooms, including boiler and furnace rooms, shall *not* be used for offices or storage. Secure rooms from unauthorized entry.

b. Electrical circuitry supply to air conditioning units shall be in conformance with NFPA 70.

Chapter 8
Special Hazards

8-1. Flammable and Combustible Liquids

All flammable and combustible liquid storage shall be in compliance with the requirements of NFPA 30.

a. Flammable liquids shall *not* be used for cleaning equipment parts. Non-flammable cleaners or solvents and/or water-solvent detergents shall be used for such purpose.

b. Flammable liquids shall *not* be used to clean or refinish floors, desks, or other furniture and furnishings.

c. Personnel shall observe the following precautions if a combustible liquid (mineral spirits) is used for floor cleaning or refinishing:

(1) Provide all possible ventilation and/or adequate mechanical ventilation to reduce vapors.

(2) *Prohibit* smoking in the work place.

(3) Keep all open flames and spark-producing devices away from the work area.

(4) Shut off all pilot lights in the vicinity.

(5) Clean only a small area at a time.

(6) Restrict the amount of fluid to that necessary for the immediate operation.

d. Day-to-day stocks of flammable liquids shall be kept only in an approved flammable liquid cabinet. Containers shall be plainly marked to indicate the nature of the contents. Storage shall be arranged to comply with NFPA 30.

e. Gasoline and other flammable liquids shall *not* be kept, stored, used, or dispensed within any building except by means of listed safety cans in good condition, unless in a flammable liquid dispensing room. Glass containers are *prohibited*, except where permitted by NFPA 30 for storage of chemically pure liquids.

f. Gravity discharge of any flammable liquid from tanks, drums, or containers other than listed safety cans is *prohibited* within all buildings.

g. Flammable liquids shall be drawn from or dispensed into tanks or containers within buildings only with the drum in an upright position, using an approved manually- operated barrel pump, and only in locations approved as flammable liquid dispensing rooms.

h. Combustible liquids shall be stored in closed metal containers having an individual capacity of not more than five gallons. The use of glass or plastic containers other than listed safety cans is *prohibited*, except where permitted by NFPA 30 for storage of chemically pure liquids.

i. Tanks, hoses, and containers shall be bonded while flammable liquids are being poured or dispensed to prevent static electricity discharge.

j. Fuel tanks and trailers are *prohibited* in hangars or shops and prohibited within 100' of any building. Maintenance of refueling vehicles is allowed only in designated areas.

k. Transfer of flammable liquids or purging of tanks or containers by compressed air or gasses is *prohibited*.

l. Gasoline, oil, or any other flammable and/or combustible liquid shall *not* be discharged into, or permitted to accumulate in, storm drains or sanitary sewers.

m. Flammable liquids shall *not* be stored in any place of public assembly, club, barracks, BOQ, or buildings, which are normally used as a sleeping quarters.

n. Paste wax shall *not* be burned or heated in any manner.

o. The use of gasoline-fueled field ranges inside buildings is *prohibited*.

p. Use gasoline as fuel only. Other uses of gasoline are *prohibited*.

q. Gasoline, oil, or any flammable and/or combustible liquid shall be stored in an appropriate storage cabinet.

8-2. Storage

a. All flammable and combustible liquids, defined as Class I, A, B, C; Class II; and Class IIIA liquids will be stored in a flammable storage cabinet or inside storage room when *not* in use.

b. Flammable storage cabinets will be constructed of 18 gauge steel, with riveted, welded seams; have a 2" catch basin in the bottom for spill containment, and have a three part lock system on the doors (latches on top, bottom, and door handle).

c. Cabinets must have a 1-1/2" air space between exterior and interior, and have a visible label on the front stating, "**FLAMMABLE-KEEP FIRE AWAY**".

d. Storage on top of flammable storage cabinets is *prohibited*.

e. Flammable storage cabinets located outside will be vented.

f. Flammable storage cabinets located inside are *not* required to be vented, however, if venting is utilized, it must be vented directly to the outside.

g. If the cabinet is *not* vented, the vent openings must be sealed with the bungs supplied by the manufacturer.

h. Flammable storage cabinets will *not* be located within 10' of an exit or physically obstruct a means of egress from the building.

i. Storage cabinets, or any other storage, will *not* be placed under any stairwell.

j. Rags and other combustibles will *not* be stored within cabinets. Exceptions are product labels, tags, and packaging for multiple small containers and inventory lists.

k. The rated capacity of flammable storage cabinets will *not* be exceeded. *No* more than 360 gallons capacity of Class IA, B, C, II, or IIA liquids will be stored in cabinets in a single fire area.

l. Industrial areas may exceed 360 gallons provided a distance of 100' separates storage areas, or a 2-hour fire separation.

M. Incompatible substances which may adversely react with flammable and/or combustible liquids will *not* be stored together.

n. Storage rooms will be constructed IAW OSHA; NFPA Codes; fire protection; proper electrical classification; ventilation; and specified fire resistance construction.

o. Do *not* store flammables and combustibles below grade, or in basements.

p. Compressed gases shall *not* be stored in lockers marked "**FLAMMABLE LIQUIDS".**

q. Propane cylinders for barbeque grills shall be stored on grill mounting brackets with the regulator disconnected or stored outside 20' away from exit.

r. Bulk flammable and combustible liquids will be stored in designated buildings and be properly labeled and placarded with "**FLAMMABLE-KEEP FIRE AWAY**".

s. Store paints and thinners in a flammable and/or combustible storage locker or cabinet, separately from other materials such as grease, oil, gasoline, and spare parts. Do *not* store rags, wood, and other similar combustible matter in the same area. Refer to NFPA 30 and 30B, chapter 4.8 and chapter 8.3 for storage procedures.

NOTE: Class IIIB liquids, support equipment such as noncombustible funnels, grease guns, and other mission related noncombustible support equipment may be stored within the cabinet provided it is in good, clean condition, and compatible with required storage.

8-3. Compressed Gas

a. Storage, handling, and use of compressed gases and explosive anesthetic agents will be in conformity with NFPA Codes and Department of Defense (DoD) publications.

b. Storage of compressed gases in buildings or compressed gas storage shells will be in strict compliance with DoD 4145.19-R-1 and NFPA 55.

c. Gases will only be stored in authorized locations.

d. Supplies of oxygen and acetylene gas will be stored in areas free of oil and greasy substances.

e. Cylinders will be stored upright and firmly secured with non-spark producing, noncombustible restraints.

f. Cylinders permitted inside buildings will be stored away from combustible materials and located where they will *not* be exposed to excessive increases in temperature.

g. Valves on cylinders will be closed and capped in both storage and shipping configuration.

h. Aerosol products shall be stored in a flammable and/or combustible locker or cabinet separate from other flammable and/or combustible items (flammable and/or combustible liquids). Refer to NFPA 30 and 30B, chapter 4.8 and chapter 8.3 for storage procedures.

8-4. Fueling Operations

a. Only authorized and properly trained personnel shall be permitted to operate major fueling equipment. Knowledge of the equipment hazards involved and the regulations for handling flammable liquid shall be required.

b. Self-service gasoline stations open to the public shall have a fully qualified attendant in the immediate vicinity of gasoline dispensing operations during all periods that the facility is open for use.

c. Operators of vehicles and mobile equipment shall turn off engine, lights, and radio transmitters before taking on fuel.

d. Vehicle operators, attendants, or others shall *not* smoke or light a match or lighter during fueling, and there shall be no open flame in the vicinity.

e. Latching or locking devices, which 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.

f. Operating any vehicle leaking fuel or excessive amounts of oil shall be *prohibited* until necessary repairs have been performed.

g. Flammable liquid containers found to be leaking shall be moved to a safe location and contents transferred to serviceable containers. Leaking containers shall be disposed of properly.

h. Glass or plastic containers other than plastic containers listed by a nationally recognized testing laboratory (i.e., UL or FM approved) shall *not* be used for gasoline.

i. Vehicles transporting explosives shall *not* be refueled with gasoline while explosives are in the vehicle, except in an emergency, then only with the engine stopped, all lights and radios off, and static grounding devices properly connected.

j. Defective or leaking fuel-dispensing equipment (e.g., nozzles, hoses, pumps) shall *not* be operated until restored to proper operational condition.

k. Makeshift fuel dispensing or de-fueling arrangements are *prohibited*. Fuel dispensing, storage locations, arrangements, and equipment shall be in conformance with the pertinent requirements of the NFPA or applicable Army technical manuals. De-fueling into open containers is *prohibited*.

l. Automotive vehicles and other spark-producing equipment shall *not* be operated within 50' of any fuel spill involving gasoline or fuels or similar characteristics until the spill has been cleaned up and all flammable vapors have dissipated.

m. Fueling of lawnmowers and other gasoline powered equipment or dispensing of any flammable liquid shall be conducted outside of all buildings, including garages and basements. Allow equipment time to cool before refueling.

8-5. Parking of Flammable Liquid Transport Vehicles

a. Tank vehicles used for transporting flammable or class II combustible liquids shall be grounded (for static electricity) and shall be parked in groups of *not* more than three vehicles with a 50-foot separation between groups.

b. Parking locations shall be selected so that the vehicles are accessible from all sides for firefighting operations and so that any of the tank vehicles can be moved (either under their own power or towed) from their location without moving another vehicle.

8-6. Hazardous Chemicals

a. Incompatible chemicals and compounds shall be kept separate and precautions taken to prevent accidental contact or contamination with incompatible materials, compounds, and agents.

b. Many chemicals and compounds, which are completely inert under normal conditions, may become violently explosive when in contact with other compounds.

8-7. Welding, Cutting Soldering, Grinding and Torch Work (also known as Hot Work)

a. A Hot Work Permit, signed by FCFP representative, shall be issued prior to the start of any operation. The permit shall be requested 24 hours in advance by contacting the FCFP Office at (270)798-3473.

b. A digital copy of the permit will be sent to the contractor via email.

c. Each separate operation, work site, and day of operation may require an inspection and issuance of a permit.

d. *No* person at any time shall conduct any cutting or welding operation outside of an established authorized shop without an approved permit.

e. Central Dispatch must be notified at (270)798-1221, before and after the hot work operation.

f. All welding, cutting, sweating of copper piping or burning operations shall be under the supervision and control of a competent supervisor who shall ensure Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1910.252, NFPA 1, and NFPA 51B compliance and Appendix D of this regulation.

g. For welding in aircraft hangars, comply with NFPA 410.

h. Portable welding units will be stored in a safe manner, away from smoking areas, public ways, and vehicle routes when *not* in use.

i. Clothing shall be selected to minimize the potential for ignition, burning, trapping hot sparks, and electric shock.

j. Operations deemed unsafe or noncompliant with prescribed standards will be terminated immediately.

k. All floors shall be swept clean. Combustible floors will be kept wet, covered with damp sand, or protected by fire resistant shields.

l. Where floors have been wet down, personnel operating arc welding or cutting equipment will be protected from possible shock.

m. Hot work shall be permitted only in areas that are or have been made fire safe.

n. Hot work shall *not* be permitted in the following areas:

(1) Areas *not* authorized by management.

(2) In sprinkled buildings where sprinklers are impaired.

(3) In the presence of un-cleaned or improperly prepared equipment, drums, tanks, or other containers that have previously contained materials that could develop explosive atmospheres.

(4) In areas with an accumulation of combustible dusts that could develop explosive atmospheres.

(5) Within close proximity to large quantities of readily ignitable combustibles.

o. Openings or cracks in walls, floors, or ducts within 35' of the site shall be covered or sealed with listed or approved fire-rated or noncombustible material to prevent the passage of sparks to adjacent areas.

p. Ducts and conveyor systems that might carry sparks to distant combustibles shall be shielded, shut down, or both.

q. Hot work that is performed on pipes or other metal that is in contact with combustible walls, partitions, ceilings, roofs, or other combustibles shall *not* be undertaken if the work is close enough to cause ignition by conduction.

r. The person or company conducting hot works shall stay in the immediate area for at least 30 minutes after the job is completed. This time should be used to extinguish smoldering fires and make a thorough safety inspection of the work area prior to departure.

s. More than one fire watch shall be required if combustible materials that could be ignited by the hot work operation cannot be directly observed by the initial fire watch.

t. Oxygen, acetylene, and other fuel gases shall be handled carefully and cylinders shall be secured by lashing, strapping, chaining, or clamping in an upright position. Cylinders shall be capped during storage or while being transported.

u. Oxygen cylinders shall be kept free of oil and grease at all times due to the potential for fire or explosion.

v. Oxygen and fuel gas systems in use shall be frequently inspected for evidence of leaks in hoses, couplings, valve stems and fittings, and other points in the system.

w. Acetylene and oxygen valves at the cylinders shall be closed whenever the equipment is left unattended or when work is stopped for more than 15 minutes.

x. Operators of electric welding equipment needing to leave or stop work for any appreciable time shall open the power supply switch to the equipment and disconnect the equipment from the source of power.

y. FCFP Office shall be notified whenever any cutting or welding is to be performed outside of an established shop.

z. A FC FI shall inspect the work site before starting the operation to determine that all necessary FP precautions are taken, that a properly instructed fire watch equipped with a minimum 4A:60B:C 10lb fire extinguisher is provided, and that the proposed operation does *not* constitute a hazard to life and property.

aa. A minimum 4A:60B:C 10lb fire extinguisher shall be provided from a source other than one assigned to the facility.

bb. The FCFP Office shall set the time frame of the Hot Work Permit. The time frame depends on the type of job, what's being worked on, and equipment being used.

cc. Individual welding shops may be granted an annual permit by the FP Office provided all safety requirements are met. An organizational FP and safety plan and binder will be kept and maintained on site. The binder will include the following:

(1). Memorandum for Record from FCFP Office.

(2). Risk Assessment conducted by unit safety representative.

(3). Ventilation Assessment conducted by Blanchfield Army Community Hospital Industrial Hygiene.

(4). Extinguisher accountability.

(5). Annual extinguisher training.

(6). Hot Work Permit issued by FCFP.

(7). Fire watch operating and emergency notification procedures.

(8). Hot work operating procedures.

(9). Personal protective equipment requirements.

(10). Any relevant regulatory standards.

8-8. Tar Pots and Kettles

a. Kettles for heating tar, asphalt, and similar materials shall be equipped with proper heat controls and means of agitation to assure controlled uniform temperatures throughout the contents to prevent spot heating.

b. Tar pots or kettles shall *not* be operated inside, on the roof, or within 35' of any building and shall be attended by a competent operator. A minimum of two 4A:60B:C 10lb fire extinguishers shall be provided at the tar pot and at the area of tar application.

c. When the material is applied within buildings or enclosed areas, the atmosphere shall be free of dust and adequate ventilation provided to completely remove all smoke and fumes. **Note: A Hot Work Permit is required IAW NFPA 1 and this regulation (para.8-7).**

8-9. Cooking Appliances

a. Cooking is permitted only in properly arranged and equipped authorized locations and should never be left unattended.

b. Cooking or use of hot plates, electric frying pans, and similar small electrical appliances is **Not** permitted in private rooms of bachelor enlisted/officer quarters, barracks and similar buildings unless such rooms or areas are provided with kitchens or cooking facilities.

c. Microwave ovens may be authorized in bachelor enlisted quarters (BEQ) and BOQ facilities without kitchens, provided the electrical power supply is adequate.

d. All appliances must be in good repair and be listed by UL or another recognized testing agency.

e. Grease cooking is *Not* allowed unless an appropriate hood and suppression system is installed.

f. Refrigerators, microwaves, and other appliances must be plugged into a wall outlet.

g. Coffee making appliances may be used in offices and work areas provided the following conditions are met:

(1) The appliance is placed on a noncombustible surface and kept a minimum of six inches from any combustible materials.

(2) The appliance must bear the testing laboratory seal of approval UL and be in good working condition. Non-acceptable items will be removed at time of inspection.

h. Hoods and ductwork over cooking surfaces shall be cleaned periodically to prevent excess grease accumulations.

i. Charcoal grills shall *not* be used inside buildings, on porches, or on balconies. Charcoal grills shall be located at least 10' away from combustible materials and/or all buildings when in use. When cooking has been completed, hot coals shall be quenched with water or covered with a noncombustible cover to prevent sparks or hot coals from being scattered by the wind.

j. Leaving cooking appliances and equipment unattended while cooking will be considered "unattended cooking."

k. Fires caused by unattended cooking will be the sole responsibilities of the individual causing unattended cooking fire.

8-10. Painting

a. Paint that requires flammable solvents, thinners or flammable cleaners shall *not* be used without first removing all potential sources of ignition in the immediate area.

b. Flammable thinners, solvents, and cleaners shall be handled, stored, dispensed, and used only IAW this regulation, paras 8-1 and 8-2 above.

c. 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' from any building.

d. Spray paint shall *not* be used within buildings unless standard spray booths or rooms constructed and arranged IAW NFPA 33 are provided for this purpose.

e. Aerosol spray paint shall be stored IAW NFPA 30B.

f. Minor touch-up involving the use of small aerosol or pressurized paint may be conducted outside of a painting standard spray booth provided all precautions of adequate ventilation are observed. Such operations shall be very limited in scope.

g. Eliminate all sources of ignition including pilot lights for water heaters and appliances before refinishing floors, .

h. Paint should be disposed of IAW FC's Environmental Handbook.

8-11. Paint Spray Booths

a. Equip spray paint booths with an adequate exhaust ventilating system. Fans will be of non-sparking type, with explosive proof fan motors located outside the booth. Install exhaust systems to conform to the standards of the NFPA 33, OSHA 29, and CFR 1910. Electric lights, switches, or electrical equipment will be of the types which meet the requirement IAW NFPA 70.

b. Installed electric equipment and lighting shall be Explosive Proof Type fixtures conforming to the standards of the NEC.

c. Do *not* smoke within 50' of spray booths.

d. Filters and filter rolls will be constructed of noncombustible material. Inspect them after each use and remove and dispose of clogged filters.

e. Do *not* store combustible materials within 3' of spray booths.

f. For additional information on personal protective equipment while spray painting, consult 29 CFR 1910.132 through 29 CFR 1910.138, subpart I as required.

g. Sprinkler heads should be protected with a cellophane bag having the thickness of .003 or less or thin paper bag will be used. Covering will be replaced frequently so that heavy deposits of residue do not accumulate.

h. The interior of spray booths, exhaust fan blades, and exhaust ducts should be cleaned regularly to avoid the accumulation of residues.

i. Spray booths require an annual airflow test to be conducted by the Blanchfield Army Community Hospital Industrial Hygiene. Maintain test results records on file.

8-12. Open Fires

a. *No* open fires shall be permitted on the installation at any time without the express approval and permission of the Fire Chief or designated representatives. The only exception is prescribed agricultural burning conducted by the DPW Forestry Branch or the Directorate for Plans, Training, Mobilization and Security (DPTMS) Range Control Division.

b. The open burning of classified materials is prohibited. Classified documents shall be destroyed IAW AR 380-5, Department of the Army Information Security Program, para 3-15. To make an appointment for the classified document shredder, contact, DPTMS Chief, Security and Intelligence Division, (270)798-2425.

c. Burnishing of wood by use of a heat or flame-producing device is *prohibited* within any building.

d. The use of open flame devices for removing paint from any structure is *prohibited*.

8-13. Batteries

All batteries shall be handled, stored, and disposed of in strict compliance with FC Environmental Handbook and NFPA 1.

Chapter 9
Fire Protection Equipment

9-1. Fire Hydrants

a. Fire hydrants shall be used only for their intended purposes and shall be operated only by authorized personnel using only standard hydrant wrenches.

b. Parking of vehicles and/or equipment shall not be permitted within 15' of any fire hydrant.

c. When no other source of water is available at construction sites and water is required for construction purposes, permission may be granted by Jacobs Engineering to use a hydrant as a source of water. In such cases, immediate written notice shall be given to the FD and the usage shall be subject to the following limitations:

(1) Connection to a fire hydrant shall be limited to *not* more than one 1½" hose.

(2) Only one connection shall be permitted per hydrant.

(3) Each connection shall be by a gated or valve connection to a single 2½" outlet of a hydrant. Flow shall not be throttled by means of the main hydrant valve which, when in use, shall be fully opened.

(4) Connection will require a backflow preventer which must have a valid test within the last 12 months. Test record will be furnished to Jacobs Engineering and kept on site.

(5) Connection will be metered. Total water use will be metered for entire duration of connection. Cost for use of water will be IAW FC Policy at time of connection.

(6) The FD shall *not* furnish hose, valves, etc.

(7) Any fire hydrant found to be leaking, damaged, or defective shall be reported immediately to the Jacobs Engineering "Hot Line" (931)431-5677 so that proper repairs may be started.

d. Whenever any fire hydrant is placed out of service for any reason, the FD shall be notified immediately. Out of service hydrants shall be marked with a metal disc approximately 9" in diameter, painted a conspicuous color, and attached to the hydrant by means of a hole in the center of the disc which shall fit over the hydrant outlet and be held in place by the outlet cap. The FD shall be notified immediately whenever an out of service hydrant is restored to service.

9-2. Fire Lanes and Fire Department Access

a. *No* vehicle, equipment, or storage shall obstruct a prescribed fire lane or FD access.

b. Fire Lane markings are required to identify known and common problem areas that need to be maintained clear of obstructions for emergency vehicle use. These uses include vehicle travel and maneuvering areas as well as a base of operation for the FD.

c. Marking of fire lanes may be required, at any time, if a need is identified by the FD in the following manner:

(1) 90 degree curbs shall be identified by a 6" red (traffic grade paint) stripe on the top and side.

(2) Rolled curbs shall be identified by a 6" red (traffic grade paint) stripe to the top.

(3) Roads with no curbs shall be identified by a 6" red stripe (traffic grade paint).

(4) The words **"NO PARKING – FIRE LANE"** shall be 18" high white stenciled lettering with 3" stroke and placed 8" as measured perpendicular to the traffic grade red paint stripe. Stenciling must be provided within 3' of each end of curbed areas and spaced a minimum of 100' apart thereafter. Paint must be traffic grade.

(5) Diagonal red striping across the width of the Fire Lane 8' shall be used when required by the FD. It shall be used in conjunction with a 6" red stripe above. The stripes shall run at a 30 to 60 degree angle and shall be parallel with each other. The stripe shall be a minimum 6" wide and a minimum of 24" apart. Paint must be traffic grade.

(6) A **"NO PARKING – FIRE LANE"** sign shall be posted at the beginning and end of each fire lane. Signs are to face on-coming vehicular traffic.

d. Signs may be used instead of marking of fire lanes. Signs must be maintained and replaced when damaged. Signs shall read **"NO PARKING FIRE LANE"** or **"NO PARKING FROM THIS POINT TO CORNER"** and shall be 12" wide and 18" high. Signs shall be painted on a white background with letters and borders in red, using *not* less than 2" lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be 6' 6" above finished grade. Signs shall be spaced *not* more than 100' apart. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

9-3. Alternative Fire Lane Surfaces

a. Alternative fire lanes shall meet the NFPA 1 Fire Code Handbook, chapter 18. If approved and utilized, the site plan must indicate the type of alternative all-weather surface being utilized; examples include tuff track, grass-crete, grass-pave, ritter-rings, invisible structures, etc. Fire apparatus access roads shall be designed and maintained to support the imposed live loads of fire apparatus (75,000lbs) with outrigger point loads, maximum tandem axle load of 46,000lbs and shall be surfaced so as to provide all weather driving capabilities.

Documentation shall include, but *not* be limited to the following:

(1) Sub-grade soil compaction report.

(2) Base material quality, thickness and compaction.

(3) Product information to include but *not* limited to installation instructions.

b. The base must meet the current construction standards for a fire lane. A detail of the alternative fire lane surface material must be included within the site plan and the utility sheet of the civil plans. Concrete reinforced curbing shall be installed on both sides of the alternative fire lane surface material to enhance lateral stability. Dirt and sod shall *not* be allowed to be placed over alternative fire lane surfaces.

c. The site plan must reflect signage at the entry point of the fire lane utilizing any alternative fire lane surface in order to make responding fire crews aware of the entry points of these types of surfaces. Approved edge boundary identification is also required. The curb shall be painted red or red reflectors shall be installed to define the width of the alternative surface fire apparatus access roads. The reflectors shall be imbedded into bordering curbing at intervals *not* exceeding 15'.

d. A detail of the fire lane sign must be provided within the site plan detail sheet. The drive-on tests are the true test of how the paver will perform under vehicle load.

e. Once the pavers are installed and turf is established, the aerial apparatus will be maneuvered on the installed pavers. The aerial apparatus will set-up with outrigger extended and aerial raised. The pavers must *not* show any signs of movement. The pavers must *not* raise or tilt up in any way. The driving surface must not interfere with the ability of the vehicle to maneuver anywhere on the grass paved

area. The FD will saturate the area with water to ensure a true test of how the pavers will perform in an actual emergency situation and all weather situations.

9-4. Sprinkler Equipment

a. Automatic sprinkler systems shall be installed IAW UFC 3-600-01 and NFPA 13 and 101.

b. Sprinkler systems, which operate during an actual fire, shall *not* be shut off except upon directions of the SFO.

c. Sprinkler systems which operate due to mechanical injury, breakage, or other non-fire related causes, shall be shut off as soon as it is determined that no fire exists. The FD shall be notified immediately of the sprinkler impairment.

d. Only properly authorized personnel shall maintain and test sprinkler systems.

e. Whenever any sprinkler system is withdrawn from service for any reason, the FD shall be notified immediately.

f. Storage shall be kept at least 18" below all sprinkler heads and/or piping. If facility is *not* sprinkled, storage is required to be 24" from ceiling.

g. All building modification projects in buildings with sprinkler systems shall include provisions for rearranging the sprinkler system as necessary for compliance with NFPA 13.

9-5. Fire Department Connections (FDC)

a. Vehicles and/or equipment shall *not* block FDC or sprinkler system drains. A 15-foot clearance in all directions is required for servicing the fire protection systems.

b. Immediate access to a FDC shall be maintained at all times and without obstruction by fences, bushes, trees, walls, gas meters or any other object for a minimum of 15' (914 mm).

9-6. Fire Hose

a. *No* vehicle shall, without the consent of the Fire Chief or fire official in command, be driven over any fire hose that is laid down on any street or private driveway to be used at any fire or alarm of fire.

b. Driving over fire hose will be considered destruction of fire emergency safety equipment and is punishable by the following laws:

(1) KY-KRS 512.040-Criminal Mischief in the Third Degree: class B misdemeanor punishable by 90 days in confinement and $250 fine.

(2) TN-TCA 39-14-408-Class A misdemeanor punishable by 11 months 29 days confinement and $500 fine.

9-7. Flight Line Fire Extinguishers

a. DPTMS Airfield Division will provide wheeled fire extinguishers for transient aircraft to include:

(1) Every three parked, medium fixed-wing aircraft (for example, C–20, C–23A and B, C–26 or similar aircraft) require a 125lb Class BC, wheeled, dry chemical or equivalent fire extinguisher.

(2) 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 125lb Class BC, wheeled, dry chemical or equivalent, extinguisher.

b. Units will provide alkaline base (sodium and potassium bicarbonate), dry chemical, 50lb and 125lb or equivalents, Class BC type wheeled extinguishers for the following aircraft.

(1) Every three parked, small, or "medium" helicopters "(UH–60/AH–64 and below) and small "fixed-wing" aircraft assigned to their unit requires a 50lb Class BC, dry chemical or equivalent, wheeled fire extinguisher.

(2) Every three parked, large helicopters (CH–47 or equivalent) assigned to their unit requires a 125lb Class BC, wheeled, dry chemical or equivalent, fire extinguisher.

(3) Every landing strip and helipad without regularly assigned aircraft rescue firefighting vehicle requires a 125lb Class BC, dry chemical or equivalent extinguisher.

Chapter 10
Range and Forest Fire Prevention

10-1. Policies and Procedures

a. Units will report all fires within the training area(s) (TA) and impact area(s) (IA) immediately to DPTMS Range Control at (270)798-3001, Central Dispatch (911), Emergency Operations Center (EOC) at (798) 6160, and DPW Forestry Branch at (270)798-6242. Fires will be reported IAW the format below. The military live-fire training FP guidelines are listed in CAM Reg 385-5, figure 3-5. .

b. Units using ranges or TAs will fight fires observed in their areas to the best of their capability. Units undergoing training shall ensure that sufficient fire suppression tools are available to fight fires during field exercises (hand tools or fire extinguishers). Cigarettes shall not be discarded until field stripped and completely extinguished. Burned matches shall not be discarded until completely extinguished and cooled. Cigarettes shall not be thrown from vehicles. NO ONE WILL ENTER AN IA for the purpose of fighting fires.

c. DPTMS Range Control Division will immediately notify the EOC and DPW Forestry Branch of all fires. DPW Forestry Branch and or the Installation Range Officer will decide if activation of the FD is required unless DES is the first responders. Then, a unified command structure will be implemented between DPW Forestry Branch and DES personnel at the incident. The officer in charge of the range or TA will render all possible assistance.

d. Units that report the fire will maintain communications with DPTMS Range Control until the fire is extinguished or relieved of responsibility by DPTMS Range Control, DPW Forestry Branch or the FD. In the event unit departs the area, they must leave two Soldiers behind to monitor the fire in case it gets out of control. Soldiers shall notify Range Control of any change.

e. DPW Forestry Branch retrieves daily weather forecasts via the Remote Automated Weather Station (RAWS) located at the corner of On-The-Line Road and Mabry Road across from Range 37. Daily observations are used to determine the burn index, wind speed, wind direction, dew point, relative humidity, fuel moisture, probability of precipitation or storms, smoke dispersion indices, atmospheric stability, drought indices, rainfall amounts and other important readings used in the National Fire Danger Rating System (NFDRS). All observations and data are calculated within the Weather Information Management System (WIMS) associated with that RAWS site. DPW Forestry Branch disseminates the WIMS generated fire danger weather forecast to DPTMS Range Control, DES, and the EOC. This information is posted on the FC Intranet Homepage and various Fire Danger Today signs on the installation.

10-2. Fire Danger Rating and Color Code

a. **Low (L) (Green**): Fuels do *not* ignite readily from small firebrands although a more intense heat source, such as lightning, may start fires in duff or punky wood. Fires in open cured grasslands may burn freely a few hours after rain, but woods fires spread slowly by creeping or smoldering, and burn in irregular fingers. There is little danger of spotting.

b. **Moderate (M) (Blue**): Fires can start from most accidental causes, but with the exception of lightning fires in some areas, the number of starts is generally low. Fires in open cured grasslands will burn briskly and spread rapidly on windy days. Timber fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel, especially draped fuel, may burn hot. Short-distance spotting may occur, but is *not* persistent. Fires are *not* likely to become serious and control is relatively easy.

c. **High (H) (Yellow**): All fine dead fuels ignite readily and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and short-distance spotting is common. High-intensity burning may develop on slopes or in concentrations of fine fuels. Fires may become serious and their control difficult unless they are attacked successfully while small.

d. **Very High (VH) (Orange**): Fires start easily from all causes and, immediately after ignition, spread rapidly and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high intensity characteristics such as long-distance spotting and fire whirlwinds when they burn into heavier fuels.

e. **Extreme (E) (Red**): Fires start quickly, spread furiously, and burn intensely. All fires are potentially serious. Development into high intensity burning will usually be faster and occur from smaller fires than in the very high fire danger class. Direct attack is rarely possible and may be dangerous except immediately after ignition. Fires that develop headway in heavy slash or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions the only effective and safe control action is on the flanks until the weather changes or the fuel supply lessens.

f. A Red Flag Warning indicates that weather conditions are highly probable for serious, damaging wildfires and the state issues a regional **NO BURN** alert. The DPW Forestry Branch office notifies Range Control and DES for situational awareness when military live-fire training may be impacted.

10-3. Restrictions During Fire Danger Low (L) (Green) and Moderate (M) (Blue)

a. Smoke grenades, flares, and simulators are extremely hazardous and easily start woods and grass fires, even after rains. Special precautions shall be exercised in their use and they shall *not* be used in

areas of highly flammable grass and leaves. An area shall be cleared for their use and a responsible individual detailed to watch all devices to ensure they are totally extinguished.

b. Caution shall be exercised in the use of warming or any other open fires. The area shall be cleared of all flammable materials for a distance of at least 3' and fires shall be smothered with water, covered with dirt, and completely extinguished before being abandoned. Fires shall *not* be left burning in drums or in open areas.

c. Burning of trash, debris, leaves, pine needles, grass, etc., or burning off of any area on the installation is prohibited except for controlled burning performed by the DPW Forestry Branch.

d. It is incumbent upon each individual to ensure all matches, cigarettes, cigars, etc., and ashes are completely extinguished before disposal.

10-4. Restrictions During Fire Danger High (H) (Yellow)

The above restrictions apply except for units scheduled to use fireworks, pyrotechnics, or fires of any description in organized training. Units shall notify the DPW Forestry Branch (270) 798-2616 or (270)798-6242 and provide unit designation, area to be used, and what activities are proposed.

10-5. Restrictions During Fire Danger Very High (VH) (Orange) and Extreme (E) (Red)

a. Anything that has the potential of starting fires, i.e. tracers, explosives, booby traps, simulators, warning fires, flares, blanks (except for M-16), etc., shall not be used.

(1) **Exception 1**: For the conduct of essential and specific firing exercises and only with the prior approval of the DPW Forestry Branch and the Installation Fire Marshal. Approval shall be granted only when firefighting equipment and personnel are immediately available.

(2) **Exception 2**: DPW Forestry Branch may authorize the use of tracers in demolition areas which have been control burned.

b. Open fires of any type shall *not* be permitted.

10-6. Actions in Case of a Fire

a. Immediately upon the discovery of a fire, all units in the vicinity of the fire shall cease training and make every effort to extinguish it. All range and TA fires shall, upon discovery, be reported to DPTMS Range Control and/or the FD.

b. Under *no* circumstances shall individuals or units enter any IA to extinguish a fire.

c. Unit reporting the fire shall direct the firefighting units to the fire and remain at the scene until released by the incident commander or authorized representative.

10-7. Fighting Fires

a. The DPW Forestry Branch or Fire Chief and/or their authorized representative have the authority to use the services of military personnel and equipment within the vicinity and/or request additional troop support to assist as required.

b. Under the terms of the Cooperative Agreement between the United Stated Department of Agriculture (USDA), Forest Service at Land between the Lakes and FC, additional trained professional forest firefighting personnel and equipment may be readily available.

Chapter 11
Storage and Warehouses

11-1. General

a. Where automatic sprinkler protection is provided, maintain a clearance of at least 18" between storage and sprinkler heads. Do *not* obstruct sprinkler risers at any time.

b. Where automatic sprinkler protection is not provided, maintain a clearance of at least 36" between storage and the underside of the lowest beams, girders, or other ceiling constructions.

c. Maintain a clearance of at least 18" between storage and electric lights, wiring, and fixtures.

d. Stacks more than 15' high or which contain unusually hazardous materials shall *not* be piled closer than 18" below the sprinkler heads.

e. Storage will *not* be permitted within 36" of heaters, stoves, furnaces, or water heaters.

f. Cross aisles of *not* less than 4' in width shall be provided for stacks up to 10' in height. Where stacks exceed 10' in height, cross aisles shall be at least 5'.

g. Combustible materials, such as excelsior, rags, and shredded paper, shall be stored in fire resistant bins with a fusible link or self-closing doors.

h. Materials shall *not* be stored under or piled against building doors, exits, or stairways. Materials shall *not* be stored within 25' of any structure.

i. A 24" space shall be maintained between stored combustible materials and interior finish, firewalls and partitions.

j. Containers, drums, or other approved receptacles containing flammable liquids shall *not* be stored in general storage areas, but shall be stored in locations specifically constructed according to current directives for this type storage. This also applies to empty flammable liquid containers.

k. Packing materials shall be kept in the original bales until used. Broken bales shall be kept in all metal lined bins with automatic self-closing covers. Waste from packing/unpacking or other sources shall not be allowed to accumulate in hazardous quantities. All waste shall be removed outside daily at the end of the workday/shift and disposed of in designated containers.

l. Floor sweeping compound shall be stored in metal containers with tight-fitting self-closing lid. Oiling of floors is prohibited.

m. Boiler rooms, utility rooms, and hot water heater enclosures shall not be used for storage purposes.

n. Storage is prohibited under stairways and in stairwells.

o. Gasoline powered equipment shall *not* be refueled or serviced inside any storage building.

p. Directional arrows will be placed where fire extinguishers are not easily discernible from a reasonable distance in the aisle way.

q. Directional arrows indicating the location of fire exits, which are *not* easily discernible, will be similarly posted. Reference OSHA 1910.145 and DoD 4145.19-R-1.

11-2. Access

a. Storage shall *not* interfere with fire lanes or inhibit access to fire valves, fire hoses, fire extinguishers, fire escapes, fire exits, fire alarm pull stations, or fire doors.

b. Doors and exits shall *not* be blocked.

c. The FCFP Office must approve access doors which are blocked on the inside. Blocked doors shall be conspicuously marked on the outside with 3" high black lettering on white background reading "DOOR BLOCKED."

d. Access aisles shall be maintained to provide convenient access to all portions of the storage areas. Fire aisles, fire exits, and approaches to fire extinguishers will remain open at all times. Main aisles will be at least 6' wide. Access routes to hand fire extinguishers will be at least 36" wide.

e. A 24" clearance will be maintained between stock and the fire door, except for portion of the fire door near the aisle. For this portion of the fire door a 36" clearance will be maintained between the stock and the fire door. Reference DoD 4145.19-R-1.

11-3. Outside Storage

a. Keep the entire storage site free of unnecessary combustible materials (fuel cans, oil barrels, etc). Keep weeds and grass cut. Remove dry weeds and grass from the storage site.

b. Fences providing closed-in areas for outside storage sites will have sufficient gates to permit rapid access of fire apparatus.

c. Storage shall *not* interfere with fire lanes or inhibit access to fire valves, fire hoses, fire extinguishers, fire escapes, fire exits, or fire doors.

d. If using a structure or an open bay, a clearance of 18" minimum shall be maintained between sprinkler heads, ceiling, ceiling lights, electrical fixtures, and stored materials.

e. Materials shall *not* be stored under or piled against building doors, exits, or stairways. Materials shall *not* be stored within 25' of any structure.

11-4. Vehicles

a. Authorized vehicles operating within warehouses will be maintained in a safe working condition.

b. A complete daily inspection will be made to preclude a fire originating from this source.

c. Vehicles will be parked in designated areas only.

d. Vehicle parking inside facility requires initial approval through the FCFP Office.

11-5. Pallets

a. Wooden pallets will be stored outside or in a detached structure.

b. When stored inside, the building must have a sprinkler system.

c. Wooden pallets will be stored no higher than 8'. Each pallet pile shall have no greater than four stacks separated from other pallet piles by at least 8' of clear space or 25' of stored commodity.

d. Plastic pallet storage will not be higher than 4'. At least 8' of clear space or 25' of stored commodity will separate each pallet pile greater than two stacks from other pallet piles. Reference NFPA 231.

Chapter 12
Motor Maintenance Facilities, Shops, and Hangers

12.1. General

a. Refer to chapter 11 above.

b. Inside vehicle maintenance compounds, fire hydrants will have at least 50' clearance from any vehicle, portable or temporary structures, connexes, or containers.

c. All gates around vehicle maintenance compounds are classified as **"FIRE LANES."** They will *not* be blocked or obstructed at any time. Signs designating fire lanes are the responsibility of the organization assigned to the compound. Fire lanes will be monitored daily by an assigned member of the organization for blockage or obstructions.

d. In the event that a building is used to store more than five gallons of insecticides, the organization will prepare a list with the type of chemical and amount of each product and forward to the FCFP Office. Hazardous pesticides will be identified, handled, and stored IAW AR 420-76, TM 5-632, and NFPA 434.

e. Cylinders containing liquified gases or acetylene that are stored outdoors will be protected from the direct rays off the sun with a fixed canopy (preferably noncombustible) capable of withstanding all local environmental conditions IAW AR 700- 68.

f. Smoking is prohibited within 50' of compressed gas cylinder storage areas, and "No Smoking" signs will be posted.

g. Oxygen cylinders will be stored in locations separated from other gases (such as acetylene) and shall be separated not less than 20' or separated by a one (1) hour fire-rated wall.

h. Oxygen, acetylene, and other compressed gases will be handled carefully. Cylinders will be secured by lashing, strapping chaining, or clamping in an upright position to prevent accidental tip over. Cylinders will be capped during storage and while being transported.

i. Do *not* store anything on top of fencing or cages used for supply, offices, and TA 50 gear (i.e. plywood, miscellaneous storage, office equipment, construction materials, etc.)

Chapter 13
Family Housing

13.1. General

It is expected and required that adult occupants shall exercise ordinary prudence in their own conduct and shall impose reasonable control on minors in their households. The prevention of fires is the paramount objective. ***NOTE: Occupants will be liable for losses by fire caused by the occupants' negligence by burning candles, incense or any other open flames in or around any building on FC.**

13-2. Smoking in Bed

Smoking in bed is prohibited and individuals are responsible for safe disposal of smoking materials.

13-3. Accumulation of Trash

Accumulation of trash on floors or near buildings is prohibited. Outdoor trash containers shall be a safe distance from the building.

13-4. Barbecue Grills

Barbecue grill shall not be used indoors, on porches in garages or carports. Barbecue grills shall be under the close supervision of an adult at all times when in use. Barbeque grills shall be located at least 10' away from combustible materials and/or all buildings when in use. When use has been completed, hot coals shall be quenched with water or covered with a noncombustible cover to prevent sparks or hot coals from being scattered by the wind. Do *not* use grills in front of exits.

13-5. Commercially Manufactured Fire Pits

Commercially manufactured fire pits shall not be used indoors, on porches, in garages or carports. Commercially manufactured fire pits shall be under the close supervision of an adult at all times when in use. Fire Pits shall be of a type approved by Family Housing, enclosed on all sides, with a cover. Fire pits shall be located at least 10' away from combustible materials and/or all buildings when in use. When

use has been completed, hot coals shall be quenched with water or covered with a noncombustible cover to prevent sparks or hot coals from being scattered by the wind.

13-6. Fireworks
Fireworks are *prohibited* in family housing and on FC.

13-7. Storage
Storage is *prohibited* in mechanical and/or heating, ventilation and air conditioning (HVAC) and utility closets.

13-8. Flammable Liquids
Flammable and combustible liquids shall be maintained in their original sealed containers. They will be maintained away from sources of ignition and from tampering by children.

13-9. Electrical Installation
Repair, and change in electrical wiring, fittings, or attachments for electrical appliances shall *not* be permitted except by authorized electricians.

13-10. Fire Plan
A fire evacuation plan shall be developed for every building to ensure the safety of all occupants. The plan should be clear and uncomplicated so that all building occupants can understand and carry out their assignments. The following principles are essential:

a. Immediately upon discovery of fire, all Family members shall leave or be removed from the building.

b. Once outside, never let anyone re-enter the building.

c. As you leave, close doors behind you.

d. Designate a meeting place outside. If someone is missing, notify the first arriving firefighter.

e. If possible, report the fire to the FCFD (dial 911), but do *not* risk injury to use your own telephone (use a neighbors).

f. Notify all occupants in adjoining quarters or houses.

13-11. Kitchen Fires

a. Grease fires in kitchens can normally be safely controlled at the start. Fires in skillets, broilers, and deep fat devices can usually be extinguished by covering with a lid. A lid should be kept conveniently available for this purpose. Turn off the burner control as soon as possible. Do *not* attempt to move any type of container that contains burning grease. **DO NOT** throw flour, water or any other substance into the burning material.

b. Leaving cooking appliances and equipment unattended while cooking will be considered "unattended cooking."

c. Fires caused by unattended cooking will be the sole responsibilities of the individual causing the unattended cooking fire.

13-12. Smoke Detectors
It is the responsibility of the occupants to test smoke detectors monthly and replace batteries as required. Occupants should report test failures to Family Housing maintenance immediately.

13-13. Fire Extinguishers
Each housing unit is provided a Class ABC fire extinguisher. It is the responsibility of the occupants to inspect it monthly and report any discrepancies to Family Housing Maintenance Division immediately.

Chapter 14
Fire Prevention for Contractors, Concessionaires and Vendors

14-1. General
This chapter was created to establish responsibility and procedures for conducting inspections, supervising, and maintaining a safe environment for FC Soldiers and their Families during special events where contractors and/or concessionaires are conducting business. Refer to the Mobile Food Unit Operation Guide and Checklist in Appendixes E and F, and para 14-2 below.

14-2. Contractors, Concessionaires and Vendors

Contractors, concessionaires and vendors shall comply with this regulation:

a. Smoking is *prohibited* in all FC buildings as of January 2, 2001. Smoking materials shall be deposited in designated smoking receptacles.

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

c. The use of heat producing devices in or adjacent to buildings shall be coordinated with the Fire Chief and/or Central Dispatch.

d. All structures must be made of quality materials; *no* plywood or tarp structures will be allowed.

e. All materials used in the construction or decoration of any booth used for cooking operations shall be inherently flame retardant or have been treated with an approved flame retardant product that will allow the material so treated to meet the requirements of the Match Flame Test.

f. On job site fire extinguisher(s) shall be the responsibility of the contractor. Contractors and concessionaires using deep fry cooking equipment shall have a Class K fire extinguisher on the premises and readily accessible. Class ABC fire extinguishers will *not* take the place of a Class K fire extinguisher if cooking equipment is being used.

g. A minimum of one (1) each 5lb 2A:10B:C fire extinguisher shall be conspicuously located and readily accessible for immediate use as determined by a FC FI.

h. Fire extinguishers must have a durable tag securely attached showing the maintenance or recharge date.

i. All employees shall be indoctrinated on methods of preventing and reporting fires.

j. All fires on FC shall be reported.

k. In all outdoor assembly events, the FI shall determine the number of fire life safety monitors that are necessary to ensure the safety of the patrons.

l. Contractors, concessionaire and vendor shall *not* use or close off water mains or hydrants without approval of the Fire Chief.

m. The contractor submitting the permit application must submit the request to FCFP Office within 20 days of the event. The permit application shall include plans that show all details of the proposed event site. ***No*** event shall proceed without approved plans.

n. Contractors, concessionaires and vendors will provide, install, operate and maintain, at concessionaire's own expense, the necessary equipment, supplies, personnel and décor package for the operation of a food concession to industry or company's standards, whichever is higher.

o. Contractors, concessionaires and vendors will be responsible for all maintenance associated with the use of the premises, including dining area and restrooms, concessionaire-installed equipment, fixtures or modifications and concept adaptations to the building.

p. Booths used for temporary food service operations shall be constructed in such a manner to allow adequate room for all the equipment, appliances, apparatus, supplies and other materials used in conjunction with the cooking operation to be contained within the booth and/or trailer.

q. All temporary food service operations booths shall be constructed in a manner as to allow for immediate accessibility and unobstructed means of egress free of impediments to full instant use in the case of fire or other emergency.

r. All temporary food service operation booths are required to have a minimum of 6' aisles on each side with a 3' aisle in the rear and an exit way of not less than 36".

s. All cooking devices shall be isolated from the public by at least 4' or by a barrier between the device and the public.

t. Access and egress routes shall be maintained so that the crowd management, security, and emergency personnel shall be able to move in the event of an emergency.

u. ***No*** obstructions shall be permitted in a means of egress at any time.

v. All devices used in conjunction with the preparation of food shall be operated to avoid hazard to the safety of the occupants and the public.

w. All devices used in connection with the preparation of food shall be of an approved type and shall be installed in an approved manner.

x. Contractors, concessionaires and vendors shall keep premises and surrounding area clean and orderly. All facilities, including equipment and property will be subject to an inspection by a FC Fire Inspector for fire and safety hazards; and the Fort Campbell Veterinary Treatment and Preventative Medicine representative(s) for safety and health hazards.

y. Meet health standards prescribed by government regulations, and obtain passes and permits as required.

z. Electrical service shall meet the following:

(1) All electrical cords must be 12-gauge minimum, grounded and approved for outdoor use in a wet location and direct contact with the ground.

(2) Cords must be the correct size for the proper load free from safety and fire hazards.

(3) Vendors are responsible for any necessary ground faults.

(4) All metal trailers must have a supplemental ground rod with a #6 gauge grounding conductor properly bonded to the trailer frame.

(5) All installations must conform to the current NEC (Article 525.20) and the Mobile Unit Operation Guide.

aa. Contractors, concessionaires and vendors shall have electrical service inspected by the FC Electric Service. This includes the required minimum gauge of extension cords being used. FC FI may inspect the electrical service before and during the event to ensure compliance.

bb. Each portable structure shall be free of safety and fire hazards that include but *not* limited to defective or broken fixtures, switches, fixture cords, sockets, outlets, service entrance cables, and splices.

cc. Each portable structure shall be provided with a disconnect switch located within sight of and within 6' of the operator's station.

dd. Electrical wiring for lighting shall be securely installed and, where subject to physical damage, shall be provided with mechanical protection.

ee. All lamps for general illumination shall be protected from accidental breakage by a suitable luminary or lamp holder with a guard.

ff. Adequate illumination from a source of reasonably ensured reliability shall be provided for all cooking operations when operating after dusk.

gg Distribution and terminal boxes shall be designed so that no live parts are exposed to accidental contact.

hh. If installed outside, the distribution and/or terminal box shall be of weatherproof construction and mounted so that the bottom of the enclosure is not less than 6" above the ground.

ii. If the contractor, concessionaire and/or vendor is using Liquid Petroleum Gas (LPG), it shall be included within the permit request to the FCFP Office.

jj. All LPG installations shall meet all requirements of NFPA 58 and current LPG Gases Code.

kk. Combustible materials within the booth shall be limited to a one day supply. Storage of combustible materials behind the booths shall be *prohibited*.

ll. If single and/or multi-well cooking equipment is using combustible oil or solids, the following shall apply:

(1) Have lids readily available for immediate use.

(2) Be placed on noncombustible surface materials.

(3) Be separated from each other by a minimum horizontal distance of 2'.

(4) Be kept a minimum horizontal distance of 2' from any combustible material.

mm. All cooking equipment shall be extinguished at the end of the event each day.

nn. All extinguished ashes and coals shall be placed in an approved metal container with a tight fitting lid and removed from the event site at the conclusion of the event.

oo. Cooking and heating equipment *cannot* be located near exits or combustible materials. Cooking equipment used in tents shall comply with NFPA 10, NFPA 17-A, and NFPA 96.

14-3. Fireworks and Pyrotechnic Permits for Contractors and/or Special Events and/or Holidays.

a. A permit for supervised public display of fireworks and/or pyrotechnics shall be obtained.

b. The permit request must be signed by the Fire Chief and sent to the Division of Fire Prevention for the State of Kentucky.

c. The contractor submitting the permit request must submit the request to the Fire Chief no later than 20 days of the event.

d. Diagrams shall be prepared and submitted with the permit request to illustrate the general arrangement and size of mortars and the location of shell storage at the discharge site.

e. A description of the termination and emergency procedures shall be included in the permit. Emergency procedures must cover inspecting the discharge site, fallout area for any defective or unexploded fireworks, and procedures for disposing of defective fireworks and fireworks materials.

f. The FCFP Office will provide the fireworks vendor a permit the day before the event.

g. The event coordinator and all contractors will adhere to NFPA 1123 for proper distances of outdoor display sites, road closures, and barricades. The event coordinator and/or contractor may adjust the distance to the next hundredth for outdoor display sites, road closures, and barricades.

h. Areas, roadways, walkways or any other sections will *not* be opened or fencing removed, until cleared for unexploded rounds and/or fireworks by the lead operator and/or pyrotechnics company of the display.

i. The AHJ can revoke or restrict any approval to conduct an outdoor display whenever conditions such as site location, weather, traffic, communication, security procedures, available public protection, or other safety precautions make such action necessary to safeguard the health, safety, or welfare of the public.

j. The AHJ will determine the level of fire protection to be provided by the display operator, contractor, or both for any outdoor display.

k. In the event that conditions are deemed hazardous by the AHJ or the operator before or during a display, the display should be postponed until the condition is corrected (i.e. adverse weather conditions or crowd control).

l. Transportation and storage of fireworks shall be conducted IAW the appropriate federal or state regulatory authority.

m. The display operator, contractor, or both shall present verifiable proof of liability insurance of a type and amount deemed appropriate by the AHJ.

n. Fireworks are prohibited except for professional licensed public displays and pyrotechnic shows.

o. See appendix D for procedures and guidelines.

Chapter 15
Public Assembly and Recreation Requirements

Public assembly and recreation facilities include clubs, theaters, exchanges, concessions, chapels, restaurants and/or cafeterias, hobby shops, gymnasiums, sales stores, and other places where people may congregate for entertainment or recreation. The potential life safety hazards and the possibility of property loss in these occupancies require that extraordinary actions be taken to prevent fire.

15-1. Managers of Places of Public Assembly and Recreational Facilities

a. Shall establish a sound FP program and shall ensure that employees are trained and understand their FP responsibilities, fire reporting, facility evacuation procedures, and first aid firefighting procedures.

b. Shall post the total occupant load IAW NFPA 101 and ensure it is *not* exceeded,. If any questions arise, coordinate with the FCFP Office.

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

15-2. Managers or Assistants

a. Shall conduct closing inspections. This responsibility shall *not* be delegated to janitorial personnel. A closing inspection checklist shall be prepared by managers and as a minimum shall include the following:

(1) All electrical kitchen equipment switches placed in the OFF position.

(2) Portable electrically operated devices or appliances, including amusement and vending machines, *not* essential for after hour's maintenance, shall have the switches placed in the OFF position.

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

b. Managers will notify the FCFP Office at (270)798-3473 when planning events that may include temporary decorations, exceptionally large crowds, or any unusual arrangements.

15-3. Inspection by Fire Prevention Personnel

a. The Fire Chief or their representative will perform an unannounced spot check inspection on public assembly buildings.

b. Inspections shall be conducted prior to the start of any social and/or unusual event.

c. These inspections do *not* relieve the management of their required responsibility.

15-4. Managers of Facilities in which Commercial or Restaurant-Type Cooking is Performed

a. Managers of facilities in which commercial or restaurant-type cooking is performed must establish and enforce the following procedures:

(1) Clean grease filters and hoods daily to prevent the accumulation of grease.

(2) Must have exhaust ducts cleaned every six (6) months by a licensed contractor. NFPA 96 contains specific guidance. It's highly recommended to have the ducts cleaned more often if there is a high volume of cooking being performed.

(3) Post the following information and make available to the FC FI during inspections:

(a) Date hood, ducts, and filters were last cleaned.
(b) Name of contractor who serviced and/or cleaned system.
(c) Date extinguishing system was checked and serviced and by whom.
(d) Date tested and certification of high-limit temperature controls on deep fat fryers. This is a semiannual requirement.
(e) Record of fire suppression training of the employees.
(4) Cooking is *not* permitted when grease filters are *not* installed or exhaust fans are *not* working.
(5) Installation of cooking equipment must be IAW NFPA 96.

15-5. Use of Candles
And other open flame devices for decorative or lighting purposes in places of public assembly are *prohibited*.

15-6. Carpets, Curtains, and Draperies
Shall be fire resistant and/or treated for fire resistance. The managers shall maintain certification.

15-7. All Decorations
a. Used for special events (i.e., hunting banners, artificial floral designs, lighting, and Christmas decorations) shall be approved by the Fire Chief and inspected by a FC FI prior to use.
b. Any decoration identified as a fire hazard during the inspection shall be removed.

15-8. No Notice Inspections
The manager shall conduct *no*-notice inspections of assigned facilities to ensure compliance with this regulation.

Chapter 16
Fire Prevention in Tent Areas

16-1. Tents
a. Tents shall be permitted only on a temporary basis. A temporary basis, according to NFPA and this regulation, is considered 180 days or less.
b. Public Assembly tent permit request shall be submitted to the FCFP Office at (270)798-3473 NLT 14 days prior to the event.
The applicant shall provide:
(1) Start and finish date of the event or activity.
(2) Venue name, address, and POC.
(3) Size of the tent and the area it will cover.
(4) Description of activities.
(5) Documents showing the flame resistance of the fabric material (certification), electrical installation needs, and heating appliances, if used.
(6) A detailed site and floor plan for each tent. This will include placement of tents, fire extinguishers, air conditioning, heaters, etc. Tents shall *not* cover more than 75 percent of the premises, unless approved by AHJ.
c. Tents, other than private tents and camping tents under $400'^2$ shall also comply with the requirements of this section.
d. All tent fabric shall meet the flame propagation performance criteria contained in NFPA 701.
e. There shall be a minimum of 10' between stake lines.
f. Adjacent tents shall be spaced to provide an area to be used as a means of emergency egress. The AHJ may adjust this requirement.
g. Tents *not* occupied by the public and *not* used for the storage of combustible material shall be permitted to be less than 10' from other structures if the AHJ deems this set up is safe to the general public. If the tent is occupied by the public, the tent shall be no less than 20' from all exits of a structure or building.
h. Tents, each *not* exceeding $1200'^2$ and located in an open space, shall *not* be required to be separated from each other, provided that safety precautions meet the approval of the AHJ.
i. Smoking is *prohibited* in and around any tent.
j. Heaters and their installation shall be approved by the AHJ. Heating devices shall be labeled.
k. Heaters shall be connected to electricity by an electric cable that is suitable for outside use and is of sufficient size to handle the electrical load.

l. Space heaters shall be placed in a box filled with 4" of sand. Boxes constructed of 2 by 4s, with the bottom of ¼" plywood shall be permitted. The dimensions shall be a minimum of 36" by 36". A drip pan shall be placed under the carburetor of all heaters to collect the overflow of fuel.

m. All stoves shall have a shield installed to protect the stovepipe. The stovepipe shall extend a minimum of 12" above the ridgepole.

n. Flammable and/or combustible liquid containers shall *not* be located inside any tent. Gasoline and diesel fuel shall not be mixed for use in heaters.

o. Containers shall be stored in an upright position and a minimum 50' from any tent or vehicle.

p. A fireguard shall be posted during the operation of heaters.

q. Weeds and vegetation shall be removed from within 10' of any tent.

r. The premises shall be kept free from flammable or combustible materials during the period for which the premises are used by the public.

s. Sand shall be maintained free of foreign matters and shall be changed if contaminated with fuel.

t. Portable fire extinguishing equipment of approved types shall be furnished and maintained in tents in such quantity and in such locations as directed by the AHJ.

u. Generators and other internal combustion power sources shall be separated from tents by a minimum of 5' and shall be protected from contact by fencing, enclosure, or other approved means.

16-2. Electrical

a. Not more than two appliances shall be connected to an electrical outlet. Multiple electrical adapters are prohibited.

b. Use of electrical extension cords is *prohibited*.

c. Adding to, tampering with, or repairing of electrical wires by other than authorized electricians *prohibited*.

16-3. Firefighting Equipment

A minimum of one (1) each 2A:10B:C 5lb fire extinguisher shall be located at each tent and where flammable or combustible liquids are used, stored, or dispensed.

16-4. Fire Reporting

Anyone discovering a fire shall immediately notify FD by dialing 911. Regardless the extent of a fire or if the fire was extinguished, the FD shall be notified. If the fire was extinguished prior to the FD, the fire scene shall not be disturbed until directed to do so by the Fire Chief or their authorized representative.

16-5. Fire Prevention General

a. If a unit approves smoking in a tent, a minimum of two metal containers shall be placed in each tent located on the floor away from the tent sides, posts, or combustible materials. The can shall have a minimum of 2" of sand or water at all times.

b. Open fires of any type shall not be permitted.

c. Unobstructed fire lanes between tents shall be maintained at all times.

d. All flammable and/or combustible liquids shall be stored a minimum of 50' from any tent or vehicle.

Chapter 17
Ammunition Storage

17-1. General

a. Do *not* obstruct the clear spacing between buildings used for storing ammunition by storing combustible items.

b. Electrical facilities within ammunition or explosive storage and maintenance areas will meet the requirements of the NFPA 70.

c. All small arms ammunition storage sites for local ground defense and security purposes may be stored in any magazine, arms room, or other suitable structure provided the following is strictly complied with:

(1) The structure or portion of the building being used for storage is locked and secured to prevent pilferage and unauthorized handling.

(2) The structure will display a proper fire symbol posted on the exterior and on the arms room door. The symbols will be removed when the building *no* longer has active arms room or ammunition storage.

(3) Quantity authorized for storage is limited to the operational needs.

17-2. Unit Arms Rooms

a. Ammunition storage in unit arms rooms requires an approved explosive storage license IAW the Arms Room Explosives Site License SOP which is available from the Installation Safety Office at (270) 956-0876.

b. The approved license will be renewed annually and a copy will be provided to the FCFP Office by the Installation Safety Office upon completion.

17-3. Transportation

a. Military vehicles transporting ammunition and/or explosives will be equipped with a minimum of two (2) each 4A:60B:C 10lb fire extinguisher.

b. The current using organization will supply the fire extinguishers. The vehicle transporting the ammunition will be properly placarded and display military fire symbols 1, 2, 3, 4 IAW Department of Transportation (DOT) guidelines and DA Pam 385-64.

17-4. Waste Materials

Separate waste materials such as oily rags, combustible scrap, and paper within an explosive area. Place each type of waste material in metal containers with closing tops.

17-5. Matches, Flame, or Spark-Producing Devices

Matches, flames, or spark producing devices in any explosive area <u>are prohibited</u> except by written authority of the Fire Chief.

17-6. Smoking

<u>Smoking is not permitted within 100'</u> of any magazine or storage pad. Specific designated locations may be established for smoking with approval of the Fire Chief.

17-7. Vehicles

<u>Do not park vehicles within 100'</u> of buildings containing explosives.

17-8. Cleaning

<u>Do not use</u> gasoline or other flammable liquids within an explosive area for cleaning purposes.

Chapter 18
Holiday and Facility Decorations

18-1. Combustible Decorations

a. Combustible decorations are ***<u>prohibited</u>***. Only fire resistant materials will be used and may be subject to burn tests.

b. Paper, flowers, tinsel, streamers, scenery, candles, incense etc. shall not be used in any building. Decorations shall be UL approval and be marked Flameproof prior to the installation of any special decorative materials. Approval shall be obtained from the FPFC Office. In all cases, decorations should be kept to a minimum to prevent the possibility of fire.

c. All seasonal or special decorations will be taken down immediately following the holiday or occasion and properly stored.

d. Candles and other open flame producing devices will ***<u>not</u>*** be used for any occasion except for religious functions held at the installation chapel or in designated areas approved by the FCFP Office.

18-2. Natural Christmas Trees

a. Cut the bottom of the tree at an angle about 1" above the original cut, set in water or wet sand and brace securely. Water should be added daily.

b. ***<u>No</u>*** attempt will be made to fire proof natural green trees.

c. Keep the tree away from radiators, stoves, and other sources of heat. The tree shall ***<u>not</u>*** be located near entrance or exit doors, nor near any elevator or stairwell.

d. Use only UL approved electric lights that are in good condition and ***<u>not</u>*** worn or frayed.

e. Do ***<u>not</u>*** leave the tree lights burning when no one is in the building or after retiring at night.

f. If lights are desired in windows, curtains and other combustible materials should be at least 6" from the lights.

g. Maximum wattage for decorations shall be 1500 watts per household.

18-3. Artificial Christmas Trees

a. Artificial Christmas trees and decorations will be flame retardant and approved by a recognized testing laboratory.

b. Christmas trees made of aluminum are conductors of electricity. The use of tree lighting sets on aluminum trees is prohibited.

c. Requirements outlined in18-2 above apply.

18-4. Haunted Houses

a. See Appendix B, Minimum Fire and Life Safety Guidelines for Haunted Houses.

b. See Appendix C, Application for Haunted House Permit.

18-5. Concerns

Any concerns with decorations should be referred to the FCFP Office at (270)798-3473.

Chapter 19
Juvenile Firesetters Intervention Education Program

19-1. Purpose

Juvenile Firesetters Intervention education is critical in understanding why a child acted the way they did and teaching them why their actions can harm others. What's most important to us is the success of the child and Family involved in the firesetter incident. Our purpose is *not* to punish, but provide an educational outlet about fire behavior to the youth of our community and offer a means for parents or guardians to understand why young people play with fire.

19-2. Program

The FCFD Firesetter Intervention Education Program was developed to reach out to the community of FC to educate the youth between the ages of 5 and 17 and their Families about the danger of playing with fire. The majority of youth involved in fire setting incidents don't think about the consequences if someone is hurt or if property is loss because of their misuse.

19-3. Referrals, Questions, and Concerns

Any questions or concerns about referrals, agencies, the process, or the Firesetter Intervention Program should be addressed with the FCFP Office, (270)798-3473.

Chapter 20
Suggested Improvements and Proponent

20-1. Suggested Improvements

Users are invited to send comments and suggested improvements on Department of the Army (DA) Form 2028 (Recommended Changes to Publications and Blank Forms) to Directorate of Emergency Services (DES), ATTN: IMCB-ESF and/or submit DA Form 1045 (Army Ideas for Excellence Program Proposal ((AIEP)) to the installation AIEP coordinator.

20-2. Proponent

The proponent for this regulation is the DES Fire Department, ATTN: IMCB-ESF.

KENNETH T. ROYAR
BG, USA
Commanding

Official:

JEFFREY W. JAEGER
Director, Mission Support Stagg

DISTRIBUTION:
INTRANET

Appendix A
References

AR 200-1
Environmental Protection and Enhancement

AR 380-5
Department of the Army Information Security Program

AR 385-64
Ammunition and Explosives Safety Standards

AR 420-1
Army Facilities Management

AR 420-4
Quality Assurance (Electrical) Inspection Standards

AR 600-63
Army Health Promotion

AR 608-10
Child Development Services

AR 700-68
Storage and Handling of Liquefied and Gaseous Compressed Gasses And Their Full And Empty Cylinders

CAM Reg 190-3
Juvenile Offender Program

CAM Reg 190-5
Fort Campbell Motor Vehicle Traffic Regulation

CAM Reg 385-2
Investigation of Serious Accidents

CAM Reg 420-6
Fort Campbell Exterior Signage and Markings

CAM Reg 608-3
Supervision of Minor Children on Fort Campbell

CAM Reg 700-2
Conventional Ammunition

DA Pam 385-64
Ammunition and Explosives Safety Standards

DoD 4145.19-R-1
Storage and Materials Handling

DoDI 6055.9 STD
Ammunition and Explosives Safety Standards

TB 43-0134
Battery Disposition and Disposal

TM 5-632
Military Entomology Operational Handbook (Incl C 1- 2)

UFC 3-600-01
Fire Protection Engineering for Facility

Factory Mutual Approval Directory
This directory may be purchased from the following source: Order Processing Factory Mutual Engineering, 1151 Boston-Providence Highway, Norwood, MA 02062-9102.

Gaining an Understanding of the National Fire Danger Rating System
This is a publication of the National Wildfire Coordinating Group, sponsored by United States Department of Agriculture, United States Department of the Interior, and National Association of State Foresters. This publication can be obtained from the National Interagency Fire Center, ATTN: Great Basin Cache Supply Office, 3833 South Development Avenue, Boise, Idaho 83705 (Order NFES # 2665). This document is also available in PDF format at the following website: http://www.nwcg.gov.

National Fire Protection Association Codes and Standards
These codes and standards, published by the National Fire Protection Association, may be purchased from the following commercial source: NFPA, ATTN: Publication Sales Department, 1 Barrerymarch Park, and P.O. Box 9146, Quincy, MA 02269-9 146.)

Underwriters Laboratories (UL) Fire Resistance Directory
(This index may be purchased from the following commercial source: Underwriters Laboratories, Inc., Publications Stock, 333 Pfingsten Rd., Northbrook, IL 60002-2096.). Web address: www.ul.com

APPENDIX B
Minimum Fire and Life Safety Guidelines for Haunted Houses

B-1. Purpose
The purpose of this annex is to establish minimum fire and/or life safety guidelines for the use and operation of Haunted Houses on FC. Organizations seeking to establish a haunted house shall submit permit request to seek approval (see Appendix C).

B-2. Application
a. The following guidelines are intended to apply to haunted houses which typically operate during the Halloween season at special community or local events. They may also apply to similar commercial activities such as carnivals and other seasonal amusement activities.
b. These guidelines have been updated to include requirements prescribed in the NFPA 1, Uniform Fire Code, and NFPA 101, both of which are incorporated by reference as part of the AR 420-1, chapter 25 FP and Protection Regulation. These guidelines are necessarily general in scope and should be applied with appropriate professional judgment and common sense in consideration of the overall fire and life safety situation.

B-3. General
a. By nature, many of these types of facilities are unique; thus, the fire safety concerns are unique and must be evaluated accordingly. Special attention should be given to overall exit arrangement, exit travel distance, exit and emergency lighting, use of flammable liquids, combustible interior finish, construction materials, use and operational condition of fire detection, alarm and extinguishing equipment, use of special effects, adequate trained and supervised staff, established emergency procedures, and readily available means to notify local fire, police and emergency medical services. For added safety, it may be necessary to limit occupant load, add additional emergency exits or establish other special precautions to minimize a potential risk due to some unique circumstance. In any event, every effort should be made to provide an enjoyable but fire safe environment as determined by the local fire inspection authority.
b. Such facilities shall comply with the provisions of the FP Code and shall be classified as a "Special Amusement Building" as defined in the NFPA 101. In addition, all special amusement buildings, regardless of occupant load, shall meet the requirements for assembly occupancies (refer to NFPA 101, chapters 12 and 13).
c. Every special amusement building, other than buildings or structures *not* exceeding 10' in height and *not* exceeding 160 sq.ft in horizontal projection, shall be protected throughout by an approved automatic sprinkler system. Where the special amusement building is movable or portable, the sprinkler water supply shall be permitted to be provided by an approved, temporary means. **Note: In some instances, such as older facilities, this may present significant practical hardships for temporary occupancies. As an alternative, consideration may be given to the overall fire and life safety risk, on a case-by-case basis, to determine if additional safety precautions such as additional exits, limited occupant load, additional staff to perform "fire watch" duties, etc. will provide a reasonable level of safety as determined by the local fire authority**.
d. Any organization wishing to facilitate a haunted house must fill out an FC Form 31 Haunted House Permit, located at Appendix C below. The FCFP Office shall be contacted and advised of the precise site location and address of the activity and the proposed dates and hours of operation so they may have the opportunity to make any appropriate pre-plan arrangements.
e. A written emergency action plan to include, evacuation plan, written diagram, and risk assessment shall be submitted to the FCFP Office with the permit application.

B-4. Egress
a. Each occupied floor shall be provided with at least two (2) approved means of egress, located as remote as possible from each other. For small facilities, the second means of egress may be an approved "*means of* escape" such as a window or escape hatch which leads to a safe area outside the building. Each exit and the access to reach it shall be clearly indicated and marked by directional exit signs as necessary so that every occupant can readily see the direction of escape from any point.
b. Unoccupied floors or areas *not* allowed to be occupied by the general public shall be appropriately secured against unauthorized entry.

c. All staff shall be trained and drilled in the duties they are to perform in case of fire, panic or other emergency to effect orderly exiting. This shall include personnel specifically assigned to notify the FD and other appropriate emergency services. Staff shall be specifically instructed to devote their immediate attention to the safe evacuation of occupants and notification of the FD before attempting to fight a fire, in order to prevent possible injury or delayed alarm.

d. Where mazes, mirrors or other layouts are designed to confound the egress path, approved directional exit marking that will become apparent to the occupant in an emergency shall be provided.

e. For added safety, the fire authority may limit the occupant load to a small group of people at a time to be "ushered" through a display with proper supervision. Also, the general public shall be restricted to only those floors or areas which are provided with sufficient exits as prescribed by the NFPA.

B-5. Exit

a. Any doorway or passageway that is *not* an exit or a way to reach an exit, but may be mistaken as an exit, shall be identified with a "*No Exit*" sign to prevent occupant confusion with designated exits. Every effort shall be made to prevent occupants from mistakenly traveling into dead-end spaces in a fire emergency.

b. All required exits shall be kept unlocked and readily accessible at all times when the building is occupied.

c. Exits shall be identified by approved self-luminous or electrically illuminated exit signs, permanently or temporarily wired in a satisfactory manner. Exit signs may be externally illuminated by a reliable power source. The size of the letters in the word "Exit" shall be large enough to be seen but *not* less than 6" high and ¾" wide. The exit sign shall be of a distinctive color on a contrasting background (eg: red or green letters on a white background or vice-versa) and shall be readily apparent with respect to nearby decorations, interior finish, or other signs.

d. If necessary, low level exit signs located at or near floor level shall be provided IAW NFPA 101, chapter 7. Consideration may also be given to special floor proximity egress path marking such as special internally illuminated wiring, reflective tape or other acceptable product.

e. All interior stairs and other openings between floors shall be properly enclosed, sealed or otherwise protected against possible fire spread, as considered necessary IAW the NFPA.

B-6. Decorations

No decorations, furnishings or equipment shall be allowed to obstruct, impair or otherwise detract attention from the visibility or use of an exit. Under no circumstances shall an exit be part of a mirrored wall. **PLASTIC SHEETING IS NOT ALLOWED.**

B-7. Construction

a. Construction of interior partitions, cubicles, mazes and the like shall be of non-combustible materials such as gypsum wallboard on wood or metal studs, brick, concrete block, plaster, etc.

b. Under *no* circumstances shall the extensive use of exposed plywood, wood paneling or wood frame partitions be allowed where such material would substantially contribute to the ignition, spread or intensity of a fire.

c. Use of fire retardant treated materials shall be restricted since they may such products tend to produce unacceptably high levels of smoke when exposed to fire. In any case, interior construction materials shall be consistent with the general type of construction of the building.

d. Special attention shall be given to the permitted types of construction for assembly occupancies for new or existing construction as prescribed by the NFPA 101, Sections 12 and 13 respectively. Where such existing construction requirements cannot be met, consideration may be given to restrict the occupant load to not more than 50 persons.

e. Interior finish of walls and ceilings shall be Class "A" throughout (flame spread 25 or less) IAW NFPA 101, chapter 10.

f. **PLASTIC SHEETING IS NOT ALLOWED**.

B-8. Displays

a. Use of draperies, cardboard and flammable vinyl materials for use as interior finish or display purposes shall *not* be used unless they are inherently flame resistive, self-extinguishing or otherwise fire retardant treated in an approved manner IAW NFPA 701.

b. Under *no* circumstances shall the use of exposed urethane foam, foam rubber or similarly highly combustible "cushion" or "molded" material be allowed, unless such material is covered or otherwise

protected by gypsum wallboard, plaster or other non-combustible covering providing at least a 15 minute fire resistance rating.

B-9. Fire Protection

a. Where the nature of the special amusement building is such that it is operated in reduced lighting levels, the building shall be protected throughout by an approved automatic smoke detection system IAW NFPA, Section 9.6.

b. Actuation of any smoke detection system device shall sound an alarm at a constantly attended location on the premises. Actuation of the automatic sprinkler system, or any other suppression system, or actuation of a smoke detection system having an approved verification or cross-zoning operation capability shall provide the following:

(1) Cause illumination in the means of egress to increase to that required by NFPA 101, Section 7.8.

(2) Stop any conflicting or confusing sounds and visuals.

(3) ***Note**: As an alternative to the above, consideration may be given to the use of a master lighting switch under the direct control of an attendant at a constantly attended location that would illuminate the total area in the event of emergency or activation of smoke alarms. This should be limited to small or temporary facilities.

c. An adequate number and type of portable fire extinguishers shall be provided on the premises for use by the staff. At least one (1) each 4A:60B:C 10lb fire extinguisher shall be provided within 75' travel distance to all areas. Extinguishers shall be properly mounted and located near an exit. All staff shall be familiar with the location and use of such fire extinguishers.

d. Where deemed necessary by the fire authority, an automatic smoke detection system shall be provided to warn occupants of a fire, especially in a building where a fire may not be immediately obvious to provide adequate occupant warning. Use of battery operated smoke alarms may be considered for this purpose on a temporary basis if acceptable to the fire authority.

B-10. Emergency Lighting

Emergency lighting is required along all means of egress and in all assembly areas. Battery packs are acceptable as well as emergency generators if the building is to be occupied on a temporary basis. Consideration may be given to the use of flash lights or other portable battery operated hand lights under certain circumstances provided an adequate number of such devices and assigned supervisory personnel are available as directed by the fire official.

B-11. Electrical

All wiring and electrical appliances must comply with NFPA 70. A licensed electrician shall install all wiring. Special attention should be given to assure adequate clearance is provided between electrical appliances subject to heated surfaces and nearby combustible materials. All electrical wiring and electrical appliances shall be subject to inspection by an approved electrical inspection agency.

B-12. Smoking, Pyrotechnics and Open Flame

Smoking and the use of pyrotechnic devices (fireworks) or open flame devices such as cigarette lighters, candles, canisters, kerosene lamps, kerosene heaters, flash powder, shall be strictly ***prohibited*** inside or around the outside of special amusement buildings or display areas. Signs shall be conspicuously posted for this purpose.

***Note**: Those personnel requiring further assistance or advice concerning these guidelines should contact the FCFP Office at (270)798-3473.

APPENDIX C
Application for Haunted House Permit, FC Form 31

HAUNTED HOUSE PERMIT

(For use of this form see CAM Regulation 420-24. The proponent of this form is DES.)

1. Application for Haunted House Permit: Date: _____

(a) Name of Unit/Organization: _____

(b) Applicant's Name: _____

(This is the person responsible for compliance and any corrective actions.)

(c) Applicant's Phone Number: _____

(d) Applicant's E-Mail: _____

(e) Location of Haunted House: _____

(f) Dates of Operation: _____

(g) Hours of Operation: _____

(h) On-Site Supervisor's Name: _____

(i) On-Site Supervisor's Phone Number: _____

(j) Number of Personnel On-Site During Operations: _____

(k) Pre-Opening Inspection Date: _____ (l) Time: _____

2. Requirements For Haunted Houses:

(a) All haunted houses must conform to CAM Reg 420-24, Minimum Fire and Life Safety guidelines for Haunted Houses, and with any Fire Prevention Section recommendations, as well as all applicable codes. A written emergency action plan to include, evacuation plan, written diagram, and risk assessment shall be submitted to the Fire Prevention Section with the permit application.

(b) No fire protection systems (alarms or sprinklers) in any building shall be obstructed or disabled by the construction or operation of this Haunted House.

(c) No readily combustible materials can be used for construction or decoration in the Haunted House unless it is treated with flame retardant chemical. PLASTIC SHEETING IS NOT ALLOWED.

(d) When approved, this permit will be posted on the front of the Haunted House.

(e) In case of emergency call 911.

I hereby acknowledge the information presented is correct and that I will comply with CAM Reg 420-24, Minimum Fire and Life Safety Guidelines for Haunted Houses, and with any Fire Prevention Division's recommendations, as well as all applicable codes. The Fort Campbell Fire Prevention Section can be reached at (270)798-3473.

Applicant's Name: _____ _____
Click above to sign

Inspector's Name: _____

Approved or Disapproved: _____ _____
Click above to sign

FC FORM 31, MAY 2018 (Previous Editions are Obsolete) Page 1 of 1

APPENDIX D
Supervised Public Display of Fireworks and Pyrotechnic Show

D-1. Purpose

a. To establish minimum fire and/or life safety guidelines for the use and operation of public display of fireworks and pyrotechnic shows on FC.

b. All public display of fireworks and pyrotechnic shows will be conducted IAW the most current edition of NFPA 1123, Code for Fireworks Display, and NFPA 1126, Standard for the Use of Pyrotechnics before a Proximate Audience.

D-2. General

a. A permit must be obtained for the public display of fireworks, which includes the use of pyrotechnic devices or pyrotechnic materials before a proximate audience, whether indoors or outdoors.

D-3. Application

a. In accordance with KRS 227.710, a copy of the issued public display of fireworks and pyrotechnics permits shall be filed with the Office of The State Fire Marshal at least fifteen (15) days in advance of the date of display.

b. The permit for public display of fireworks and pyrotechnics is issued by the Fire Chief.

c. Applications and permit procedures may be obtained from FCFP Office, 6931 Desert Storm Ave or by calling (270)798-3473.

APPENDIX E
Mobile Food Unit Operation Guide

E-1. Purpose
The purpose of this guide is to provide minimum FP standards regarding function, design, and operations of mobile food units operating on FC.

E-2. Application
This guide is to be used in conjunction with CAM Reg 420-24 and applies to Class II, III and IV mobile food units only.

E-3. Definitions
a. A mobile food unit is any vehicle that is self-propelled, or can be pulled or pushed down a sidewalk, street, highway or waterway. Food may be prepared or processed on this vehicle, and the vehicle is used to sell and dispense food to the consumer.
b. **Class I** Mobile Food Unit: These units can serve only intact, packaged foods and non-potentially hazardous drinks. *No* preparation or assembly of foods or beverages may take place on the unit. Non-potentially hazardous beverages may be provided from covered urns or dispenser heads only. Dispensed ice is *No*t allowed.
c. **Class II** Mobile Food Unit: These units may serve foods allowed under Class I and provide hot and cold holding display areas from which unpackaged foods are displayed. Self-service by customers of unpackaged food is not allowed. Preparation, assembly or cooking of foods is not allowed on this unit.
d. **Class III** Mobile Food Unit: These units may serve any food item allowed under Class II, and may cook, prepare and assemble food items on the unit. However, cooking of raw animal food on the unit is not allowed.
e. **Class IV** Mobile Food Unit: These mobile food units may serve a full menu.

E-4. General requirements
a. Class II, III and IV mobile food unit operators shall have an inspection and be issued a permit from the FCFP Office prior to operating on FC. This permit must be affixed to the windshield (passenger's side) of the vehicle. Failure to comply with this standard will result in revocation of the permit for a time determined by the AHJ.
b. Mobile food units shall be constructed of non-combustible materials so as to prevent the buildup of grease and the spread of fire.
c. The electrical supply is limited to a quick connect electrical service. The electrical line from the mobile food unit shall be insulated and *not* of the ROMEX type wiring. The following requirements shall also be adhered to:
(1) Feeder conductors supplying power to this 15, 20, 30 ampere disconnect means shall originate from an approved distribution or branch circuit panel board located on the same property that the mobile unit is to be parked.
(2) Cord with adapters and pigtail ends shall *not* be permitted.
(3) All cords shall be UL listed with three (3) each wires 120 volt or four (4) each wire 120/240 volt. Each cord shall have one continuous conductor, green in color indicating the grounded circuit.
(4) Where flexible cords are used as a means of supplying power from the unit to the disconnect, the cord shall be UL listed for extra hard usage (minimum #12 cord) or equal to the amperage of the disconnect and *cannot* be subjected to physical damage.
(5) All 125/230 volt 15, 20 and 30 ampere receptacle outlets mounted at the disconnect shall have a listed ground fault circuit-interrupter protection for personnel.
(6) All electrical work must be completed by a licensed electrician.
(7) Refer to CAM Reg 420-24 and most current NEC for complete requirements of electrical services while on FC.
(8) ROMEX wiring used on the interior of the mobile food unit must be placed in conduit.
(9) Electrical wiring shall be protected against damage from foot and vehicle traffic in an approved manner. Protection methods shall prevent physical damage and shall allow electrical wiring to dissipate heat. The placement of rugs, tape and other similar items are *not* approved for this use.

E-5. Lighting

a. Light bulbs and tubes shall be covered and completely enclosed in plastic safety shields or the equivalent.

b. Light fixtures shall be installed so as not to constitute a hazard to employees.

c. Adequate electrical power shall be provided to power accessories or appliances.

E-6. Appliances

a. Appliances must be in good repair and meet applicable UL standards.

b. Thermocouples shall be installed and in proper working order.

c. Propane tanks

(1) Propane tank enclosures shall be free of any source of ignition.

(2) Tanks shall be securely placed and should *not* be located on the bumper of a trailer mounted vehicle. The only appropriate placement on the exterior of the mobile food unit is on the front (tongue) of the trailer.

(3) Tanks shall have a safety shut off valve.

(4) Gas fired appliances shall meet applicable standards that are ANSI certified.

(5) Certification shall be indicated by a decal on the appliance.

d. A closing lid shall be required on fryers with latching mechanisms that secure it in the open and closed position. ***NOTE: if a latching mechanism is *not* available, oil in fryers shall be allowed to cool prior to moving the unit.** Fryers should never be over-filled.

e. Crock pots or other heating units may *not* be used unless they are designed and fit to your unit.

f. All grills, burners, and cooking equipment must be installed on or to the unit. All cooking surfaces must have a lid or cover.

g. Refrigerators, microwaves, coffee pots and all other cooking appliances shall *not* be plugged into a power strip or surge protector. These appliances shall be plugged directly to an outlet.

E-7. Fire Prevention

a. Each mobile food unit must have at least one (1) each 5lb 2A:10B:C fire extinguisher and one (1) each class K fire extinguisher. Class K fire extinguishers are required within 30' from the hazard for hazards where there is a potential for fires involving combustible cooking media (vegetable or animal oils and fats). Each fire extinguisher shall be mounted so as to be easily located and accessed during the event of an emergency.

b. Fire extinguishers shall comply with the most current edition of NFPA 10. Fire extinguishers shall be inspected by a certified fire extinguisher company with their tag and date of service affixed to the extinguisher.

c. All propane tank use and storage shall comply with NFPA 1, NFPA 58 and this regulation.

d. Mechanical exhaust hoods shall be provided over any grease producing cooking equipment to remove smoke, steam, and grease-laden vapors. The hood must extend at least 6" beyond the front and sides of the cooking equipment, unless hood is installed against the side wall. Mechanical exhaust hoods shall comply with the most current edition of NFPA 96.

e. Hoods and ductwork over cooking surfaces shall be cleaned semi-annually to prevent excess grease accumulations.

f. Each mobile food unit shall be equipped with a fire suppression system complying with the most current NFPA 17 or 17A.

g. Grease traps and grease filters shall be cleaned on a daily basis.

h. Mesh type filters shall *not* be used in the hood system.

i. All compressed gas cylinders, including propane or CO2 cylinders used for beverage service shall be secured against falling and protected from physical damage. Cylinders containing flammable gas shall be placed outside of the stand and are *not* allowed in a tent or under a canopy.

E-8. Mobile Food Unit Operation

a. Cooking is *prohibited* while the mobile food unit is in motion.

b. Mobile food units shall *not* park or operate in front of an exit, exit discharge, fire hydrant, PIV or FDC.

c. Mobile food units shall *not* operate or park within 10' of any non-combustible structure and 20' from any combustible structure to include any overhang, awning or projection from the building.

APPENDIX F
Mobile Food Unit Pre-Inspection Checklist

F-1. Construction

a. Mobile food unit shall be constructed of non-combustible materials so as to prevent the buildup of grease and the spread of fire.

F-2. Electricity

a. The electrical line from the mobile food unit shall be insulated and not of the ROMEX type wiring

b. Feeder conductors supplying power to the 15, 20, 30 ampere disconnect means originates from an approved distribution or branch circuit panel board located on the same property that the mobile unit is to be parked.

c. Cords with adapters or pigtails are not used.

d. All electrical cords are listed with three wire 120 volt or four wire 120/240 volt conductors.

e. Flexible cords used for supplying power from the unit to the disconnect, is UL listed for extra hard usage

f. Electrical cords shall be a minimum #12 or equal to the amperage of the disconnect and not subject to physical damage.

g. Ground Fault Circuit Interrupters shall be installed for all 125/230 volt 15, 20 and 30 ampere receptacle outlets mounted at the disconnect.

h. ROMEX wiring used on the interior of the mobile food unit must be placed in conduit.

i. All electrical work has been completed by a licensed electrician and comply with CAM Reg 420-24 and NFPA 70.

F-3. Lighting

a. Light bulbs and tubes are covered and completely enclosed in plastic safety shields or the equivalent.

b. Light fixtures are installed so as not to constitute a hazard to employees.

F- 4. Propane tanks

a. Enclosures are free of any source of ignition.

b. Tanks are securely attached to the vehicle (shall not be located on the bumper of a trailer mounted vehicle). ***Note: The only appropriate placement on the exterior of the mobile food unit is on the front (tongue) of the trailer.**

c. Safety shut-off valve present.

d. Gas fired appliances meet applicable standards that are ANSI certified.

f. Certification is indicated by a decal on the appliance.

F- 5. Appliances

a. Appliances are in good repair and meet applicable Underwriter's Laboratory standards.

b. Thermocouples shall be installed and in proper working order.

c. A closing lid with latching mechanism shall be used for deep fat fryers. ***NOTE: If a latching mechanism is not available, oil in fryers shall be allowed to cool prior to moving the unit. Fryers should never be over-filled.**

d. Crock pots or other heating units are not be used unless they are designed and fit the unit.

e. All grills, burners, and cooking equipment are installed on or to the unit. All cooking surfaces have a lid or cover.

f. Refrigerators, microwaves, coffee pots and all other cooking appliances are not plugged into a power strip or surge protector.

F- 6. Fire Prevention

a. Mobile food units have at least one (1) each 5lb 2A:10B:C fire extinguisher and one (1) each class K fire extinguisher and each fire extinguisher is mounted so as to be easily located and accessed during the event of an emergency.

b. Fire extinguishers have been inspected by a certified fire extinguisher company with their tag and date of service affixed to the extinguisher.

c. Mechanical exhaust hoods are provided over any grease producing cooking equipment to remove smoke, steam, and grease-laden vapors. The hood extends at least 6” beyond the front and sides of the cooking equipment, unless hood is installed against the side wall.

d. Paperwork is provided to show that hoods and ductwork over cooking surfaces has been cleaned semi-annually to prevent excess grease accumulations.

e. Fire suppression system complies with the most current NFPA 17 or 17A.

f. Grease traps and grease filters are cleaned on a daily basis.

g. Mesh type filters are not used in the hood system.

APPENDIX G
Minimum Fire Protection and Prevention Guidelines for Construction, Alterations, and Modernization Projects

1. Purpose (expound on contractor and other construction on the installation)
Appendix G reinforces established policies, procedures, and responsibilities for construction projects that have been coordinated with the installation's Directorate of Public Works (DPW) or United States Army Corps of Engineers (USACE) and reviewed by the installation Fort Campbell Fire Department (FCFP) Office during design phase and prior to bid advertising or authorization to proceed with construction.

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Section G-2. Water Distribution System

Section G-3. Interior Building Signage Requirements

Section G-4. Fire Protection
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Section G-10. Exit Signage

Section G-11. Attic Access

Section G-12. Roof Access

Section G-13. Stairs

Section G-14. Doors

Section G-15. Fire Safety Symbols

Section G-16. Life Safety Plan

Section G-17. Outdoor Storage, Parking, and Loading and Unloading Areas

Section G-1
Vehicular Circulation

1-1. Emergency Vehicle Access:
"Provide emergency access lanes with all-weather accessibility to accommodate the Fort Campbell Fire Trucks and Emergency Vehicles IAW NFPA, UFC, and anti-terrorism and force protection requirements. Provide fire vehicle access at a minimum of two sides of each facility.

1-2. Aerial Access:
Provide aerial vehicle access at a minimum of two sides of each facility and a minimum of three sides of all sleeping quarters.

1-3. Apparatus Dimensions:

Vehicle ID	GVW	Height	Length	Width	Turning Radius
ENGINE 1	40,000 lbs.	10’	31’3”	8’6”	
ENGINE 2	40,450 lbs.	10’	29’9”	9’9”	
ENGINE 3	39,800 lbs.	8’4”	32’5”	9’6”	
ENGINE 4	43,540 lbs.	9’8”	30’6”	9’4”	
ENGINE 5	39,800 lbs.	9’	30’9”	9’	
LADDER 1*	66,000 lbs.	11’4”	42’	10’5”	39.2’
LADDER 5*	54,920 lbs.	11’4”	40’2”	9’2”	39.2’
RESCUE 1	39,800 lbs.	11’5”	38’8”	8’3”	
CRASH 2**	32,100 lbs.	10’8’’	27’	8’	87’
CRASH 3**	82,500 lbs.	11’9’’	38’7’’	9’11’’	117’
CRASH 33**	47,000 lbs.	12’8”	31’1”	9’6”	87’
CRASH 4**	69,000 lbs.	12’11”	36’3”	9’2”	117’
CRASH 5	43,540 lbs.	10’5”	29’7”	8’6”	75”
HAZMAT 1	35,000 lbs.	10’2”	30’3”	7’11”	
TANKER1	43,000 lbs.	9’10”	25’6”	8’5”	
* 16-feet with out-riggers extended					
**ONLY for airfield operations					

1-4. Fire Lanes Dimensions:
Fire lanes shall be a minimum width of 20’, measured edge of roadway to edge of roadway and not including storm gutters and curbs.

1-5. Alternative Fire Lane Surfaces:
a. Alternative fire lanes shall meet the NFPA 1, Fire Code Handbook, Section 18. If approved and utilized, the site plan must indicate the type of alternative all-weather surface being utilized (examples are Tufftrack, grass-crete, grass-pave, ritter-rings, invisible structures, etc.).
b. Fire apparatus access roads shall be designed and maintained to support the imposed live loads of fire apparatus (75,000lbs) with outrigger point loads, maximum tandem axle load of 46,000 lbs. and shall be surfaced so as to provide all weather driving capabilities.
c. Documentation shall include, but not be limited to the following:
(1) Sub-grade soil compaction report.
(2) Base material quality, thickness and compaction.
(3) Product information to include but *not* limited to installations instructions.
d. The base must meet the current construction standards for a fire lane. A detail of the alternative fire lane surface material must be included within the site plan and the utility sheet of the civil plans. Concrete reinforced curbing shall be installed on both sides of the alternative fire lane surface material to enhance lateral stability.
e. Dirt and sod shall *not* be placed over alternative fire lane surfaces.

f. The site plan must reflect signage at the entry point of the fire lane utilizing any alternative fire lane surface in order to make responding fire crews aware of the entry points of these types of surfaces.

g. Approved edge boundary identification is also required. The curb shall be painted red or red reflectors shall be installed to define the width of the alternative surface fire apparatus access roads. The reflectors shall be imbedded into bordering curbing at intervals not exceeding 15'. A detail of the fire lane sign must be provided within the site plan detail sheet.

h. The drive-on tests are the true test of how the paver will perform under vehicle load.

i. Once the pavers are installed and turf is established, the aerial apparatus will be maneuvered on the installed pavers.

j. The aerial apparatus will set-up with the outriggers extended and aerial raised.

k. The pavers must *not* show any signs of movement.

l. The pavers must *not* raise or tilt up in any way and the driving surface must *not* interfere with the ability of the vehicle to maneuver anywhere on the grass paved area.

m. The FD will saturate the area with water to ensure a true test of how the pavers will perform in an actual emergency situation and all weather situations.

1-6. Fire Lanes Marking:

If required by the FCFP Office, fire lanes markings will be identified in the following manner:

a. 90 degree curbs shall be identified by a 6" red (traffic grade paint) stripe on the top and side.

b. Rolled curbs shall be identified by a 6" red (traffic grade paint) stripe to the top.

c. Roads with *no* curbs shall be identified by a 6" red stripe (traffic grade paint).

d. The words "**NO PARKING – FIRE LANE**" shall be 18" high white stenciled lettering with 3" stroke and placed 8" as measured perpendicular to the traffic grade red paint stripe. Stenciling must be provided within 3' of each end of curbed areas and spaced a minimum of 100' apart thereafter. Paint must be traffic grade.

e. Diagonal red striping across the width of the Fire Lane (8') shall be used when required by the FD. It shall be used in conjunction with a 6" red stripe above. The stripes shall run at a 30 to 60 degree angle and shall be parallel with each other. The stripe shall be a minimum 6" in width and a minimum of 24" apart. Paint must be traffic grade.

f. A "**NO PARKING – FIRE LANE**" sign shall be posted at the beginning and end of each fire lane. Signs are to face on-coming vehicular traffic.

1-7. No Parking Signs:

a. Signs may be used instead of painted fire lanes.

b. Signs must be maintained and replaced when damaged.

c. Signs shall read "**NO PARKING FIRE LANE" or "NO PARKING FROM THIS POINT TO CORNER**" and shall be 12" wide and 18" high.

d. Signs shall be white background with letters and borders in red, using *not* less than 2" lettering.

e. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be 6', 6" above finished grade.

f. Signs shall be spaced *not* more than 100' apart.

g. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

h. Sidewalks dimensions that support emergency vehicle traffic

i. Sidewalks designed to support emergency vehicle traffic shall be a minimum of 20' wide (16' paved with 2' structural turf both sides). Coordinate with Fire Chief for location requirements. Reference Apparatuses Dimensions for Emergency Vehicle design loads.

Section G-2
Water Distribution System

2-1. Fire Service Mains, Hydrants, and Appurtenances

a. Install, test, and document fire service mains and their appurtenances IAW UFC, Unified Facilities Guide Specification (UFGS), NFPA, and applicable codes.

b. Private and public water supply systems shall be installed, tested, and maintained IAW NFPA 24 and NFPA 25.

c. Fire hydrants shall be provided along required fire apparatus access roads and adjacent public streets.

d. Fire hydrants shall be located a minimum of 40' from facility.

e. Hydrants shall be located *not* less than 40' from building being protected.

f. Hydrant spacing shall *not* exceed 450' around facilities.
g. Hydrant spacing shall *not* exceed 600' in open air parking areas.
h. Hydrant spacing shall *not* exceed 1000' along undeveloped roadways.

2-2. Existing Fire Hydrant
Existing fire hydrants shall *not* be relocated. New fire hydrants shall be installed when existing fire hydrants are required to be relocated.

2-3. Fire Hydrant Protection
All fire hydrants located in areas where subject to vehicular damage shall be protected with barriers.

2-4. Water Flow Test
The contractor shall perform a water flow test IAW NFPA 291.

2-5. Working Plans
Working plans and final as-built drawings shall comply with NFPA 24, paras 4.1.3 and 4.1.4.

Section G-3
Interior Building Signage Requirements

3-1. Signage Review
Coordinate review of signage with FCFP Office at the 100 % design phase. FP shall review the correct placement, quantity of signage and the proposed path of egress that will be graphically illustrated on the sign.

Section G-4
Fire Protection

4-1. Sprinkler System
a. Install sprinkler systems IAW UFC 3-600-01, NFPA 13, and international building codes (IBC) except as modified herein.
b. Provide a separate fire sprinkler service connection for each facility.
c. Install a vane type water-flow alarm switch with adjustable retard monitored by building fire alarm system. Set the main riser water flow switch retard adjustment for a delay between 50 and 60 seconds. A main riser water flow switch is required on all standpipe suppression systems.
d. Install a floor control valve assembly as illustrated in UFC 3-600-01, figure 4-1, for each riser on each floor. Set the water flow switch retard adjustment for a delay between 30 and 40 seconds.
e. Main riser and floor control valve assembly vane type water flow alarm switch with a maximum delay of 90 seconds, to include a minimum 20 second delay difference between main riser and floor control.
f. All tampers and water flow switches shall be monitored by fire alarm system via the Signal Line Circuit (SLC). Set the water-flow switch retard adjustment for a delay between 30 and 40 seconds.
g. Install a floor control valve assembly for each space separated by floors, partitions, and barriers regardless of separation orientation (vertical or horizontal).
h. Install a remote inspector test valve on the end of the most remote branch line on each floor or space with control valve assembly. Locate the inspector test valve in an accessible location *not* over 7' off the floor that is *not* exposed to freezing. The test drain shall terminate outdoors with appropriate splash guard protection as required. Refer to NFPA 13, figure A.8.16.4.2.(a).
i. Install backflow preventer devices on the inlet (suction) side of water protection systems.
j. Test backflow preventer to verify check valves are fully functional and operate IAW manufacturer specifications. A certified technician shall perform and post test results along with certification certificate in waterproof enclosure on the backflow preventer.
k. The backflow preventer shall be tested for full forward and test documented before sprinkler system can be accepted.
l. The backflow preventer test connection shall terminate to the exterior of the building in a similar manner as the FDC located *not* less than 5' away from the FDC. Provide signage using the words "**TEST HEADER**" in similar manner as for FDC. The test header should be located near the sprinkler backflow preventer.

m. Electrically supervise all sprinkler system water control valves to include sectional control and isolation valves and floor control valves. Electrically supervise backflow preventer test connection water control valves in the closed position.

n. Locate FDC at a readily accessible location from the street or fire lane. FDC must be mounted directly to the facility.

o. Install plastic protective covers

p. Install a Post Indicator Valve (PIV) with a tamper switch monitored by fire alarm system IAW NFPA 24 and NFPA 72. PIV shall be manually secured with FD lock.

q. The use and installation of plastic pipe is prohibited.

4-2. Standpipe System

a. Install standpipe system IAW UFC 3-600-01, NFPA 14, NFPA 101, and IBC.

b. Install combination standpipe and sprinkler system in buildings with four or more stories.

c. Install combination standpipe and sprinkler system in any building regardless of height when the length or width of the building is 200' or more.

(1) Install Class 1 standpipe riser in every stairwell with cabinets of adequate size to accommodate 100' of (2 ½", NST) fire hose.

(2) Install water-flow switch on main riser and adjust retard delay between 50 and 60 seconds.

(3) Provide FDC IAW NFPA 14 requirements based on number of standpipe risers.

(4) Installing contractor shall provide all necessary equipment to properly test standpipe system IAW NFPA 14.

4-3. Fire Pumps

a. Install fire pumps when required by hydrostatic calculations IAW NFPA 20, NFPA 13, and UFC 3-600-01, all applicable codes, except as modified herein.

b. Permanently install necessary equipment to adequately test fire pump IAW NFPA 20, NFPA 25, and UFC 3-600-02.

c. Install backflow preventer devices on the inlet (suction) side of fire pump.

4-4. Kitchen Suppression System

a. All kitchenette and commercial cooking hood and suppression systems shall be installed IAW all applicable codes and standards to include NFPA 96, NFPA 17A, UFC 3-600-01, Mechanical Code, manufacturer recommendations and modifications herein.

b. Provide a complete pre-engineer "Wet Chemical" suppression system to protect all grease vapors producing equipment.

c. Wet automatic spray nozzle type suppression systems are *prohibited*.

d. De-energize all electrical receptacles within 3' of the hood.

e. Connect the suppression system to the building fire alarm system and generate a general evacuation signal upon suppression system activation.

f. Provide two means of manual activation where there are two or more means of egress from the area for each system.

g. Provide a minimum of one (1) each two-liter wet chemical portable fire extinguishers mounted in recess or semi-recess cabinets in all commercial and kitchenette cooking areas.

h. Provide a minimum of one (1) 4A:60B:C 10lb fire extinguisher mounted in recess or semi-recess cabinets in commercial and kitchenette cooking areas for fires other than cooking fires.

i. Exhaust fans shall be accessible for cleaning and maintenance.

j. Complete drawings of the system installation, including the hood(s), exhaust duct(s), and appliances, along with the interface of the fire-extinguishing system detectors, piping, nozzles, fuel shutoff devices, agent storage container(s), and manual actuation device(s), shall be submitted to FCFD Office, the authority having jurisdiction. The responsibility for their preparation shall be entrusted only to trained persons.

k. Drawing and plans shall be drawn to an indicated scale and shall be reproducible.

(1) 1/8" = 1-foot is the smallest drawing scale accepted.

(2) Illustrate all appliances on drawing.

(3) Illustrate all nozzles and lines such as plenum, duct, and appliance nozzles including supply and branch lines with dimensions.

(4) Illustrate all access panels.

(5) Illustrate all heat links and manual pull stations.

(6) Illustrate all fuel shut-off valves and or electrical circuit breakers.

(7) Illustrate reset button and system cylinders.
(8) All symbols shall be IAW NFPA 170.

4-5. Fire Alarm Systems Authorized for Installation
Notifier®, Fire-Lite®, QuickStart®, and General Electric®, and Silent Knight ® are the only fire alarm systems authorized for new installation.

4-6. Mass Notification System (MNS)
a. Fire alarm and mass notification may be a single system which is authorized by UFC 4-021-01.
b. The mass notification system (MNS) shall provide the capability (either internally as a design feature, or with an approved or listed external controller) to temporarily deactivate the facility's fire alarm system audible and visual notification appliances. This is intended to allow the MNS to provide intelligible voice commands inside an individual building during simultaneous fire and terrorist events.
c. The two systems will work independent of each other except to override the fire alarm audible signal in mass notification emergencies.

4-7. Fire Alarm Systems
a. All fire alarm systems shall be connected to a wireless transmitter.
b. All programming codes, passwords, equipment, cables, and plugs required to access, update, modify, and maintain the fire alarm system shall be provided to FC with training no later than the date of final system acceptance.
c. Design and install the fire system IAW NFPA 72, NFPA 70, NFPA 101, UFC 3-600-01, UFGS 28-31-76, and UL 864, except as modified herein.
(1) The components of a fire alarm system shall include an addressable control panel (FACP), autonomous control unit (ACU), notification appliance network (strobes and speakers), water flow switches, valve tamper switches, supervisory devices, monitor and control modules, duct detectors, heat detectors, smoke detectors, combination heat and smoke detectors, wireless transmitter, and other equipment as required by code or FC.
(2) Provide a complete addressable microprocessor-based fire alarm system.
(3) Provide remote annunciation panel when fire alarm panel and or associated panels are installed in remote area or closet.
(4) Provide manual pull stations at all exterior entrances and exits and in each mechanical, electrical, and communication room. Provide notification appliances network in such like rooms.
(5) All panel boxes shall be "red" in color.
(6) Whenever possible, all associated panel boxes shall be keyed alike.
(7) Detection devices that operate independent from fire alarm system are prohibited.
(8) The Signal Line Circuit (SLC) shall be Class A, Style 6 and the performance capabilities under abnormal conditions IAW NFPA 72, Section 6.
(9) The Notification Appliance Circuit (NAC) shall be Class A, Style Z and the performance capabilities under abnormal conditions IAW NFPA 72, Section 6.
(10) The Speaker Circuit shall be Class A, Style Z and the performance capabilities under abnormal conditions IAW NFPA 72, Section 6.
(11) Each audio amplifier shall be constantly supervised for any condition that could render the amplifier inoperable at its maximum output. Failure of any component shall cause automatic transfer to a designated backup amplifier and illumination of a visual amplifier trouble indicator on the control panel.
(12) All administrative areas shall have both strobes and speakers with a minimum audio level of 70-dba or 15-dba above the normal ambient sound level or 5-dba above the peak sound level; whichever is greater; with a CIS score of 0.80. All measurements are collected with all doors closed.
(13) All sleeping rooms shall have both strobes and speakers, providing a sound level of at least 15 dB above the average ambient sound level or 5 dB above the maximum sound level having duration of at least 60 seconds or a sound level of at least 75 dB, whichever is greater, measured at the pillow level in the occupy-able area, using the A-weighted scale (DBA).
(14) All components of the fire alarm shall be located near the facility main entrance. When the fire alarm panel and/or panels associated with fire alarm system are installed in a remote area such as an electrical room, the system is required to have remote fire panel annunciation panel located near the facility main entrance and other entrances as deemed necessary by FCFD.
(15) All fire conductors shall be housed in "red" conduit. Junction (pull) boxes and covers shall be "red" in color.

(16) Vertical and horizontal conduit and cables separation shall be IAW NFPA 72-2002, para A.6.4.2.2.2.

(17) Conductors shall go from device to device and appliance to appliance without splices.

(18) Use terminal boards when wire splices are unavoidable. Electrical wire nuts are prohibited.

(19) Only solid copper conductors are authorized for installation. Stranded conductors may be installed between fire alarm panel and Kingfisher transmitter.

(20) All panels and associated equipment shall operate on the secondary power source for 72-hours in (supervisory) state and 15-minutes in alarm. It is the contractor responsibility to coordinate a battery test with FCFP Office.

(21) Smoke detectors shall be addressable photoelectric type.

(22) Locate smoke detectors a minimum of 5' away from air intake, diffusers, ceiling fans, and vapor and steam producing rooms or areas, such as bathrooms and kitchens.

(23) Smoke detectors shall be connected to the building fire alarm panel via the SLC loop.

(24) Smoke detectors in sleeping room, dwelling unit, and suite rooms shall:

(a) generate a sounder base that produces a minimum sound pressure of 75-dba measured at the pillow.

(b) Provide signals for sleeping areas. They shall have a sound level of at least 15 dB above the average ambient sound level or 5 dB above the maximum sound level having a duration of at least 60 seconds or a sound level of at least 75 dB, whichever is greater, measured at the pillow level in the occupy-able area, using the A-weighted scale (DBA).

(c) If any barrier, such as a door, curtain, or retractable partition, is located between the notification appliance and the pillow, the sound pressure level shall be measured with the barrier placed between the appliance and the pillow.

(d) The alarm shall sound only within an individual sleeping area and shall *not* actuate the building fire alarm system notification appliances.

(e) Alarm activation shall annunciate at the fire alarm panel and transmit to the Emergency Communication Center (ECC) via the Kingfisher transmitter.

(f) Smoke detectors shall be connected to the building fire alarm notification system.

(g) Smoke alarms that receive their operating power from the building's electrical system are *prohibited*.

(25) When emergency back-up generators are provided for the facility and the fire alarm system with all its peripherals are connected to the back-up generator, the battery secondary power source may be reduced to 24-hours in (supervisory) state and 60-minutes in alarm. It is the contractor responsibility to coordinate the battery test with FCFP Office.

(26) Fire alarm notification appliances shall be ceiling mounted in vehicle maintenance facilities, where practical, giving consideration for vehicle type and height.

4-8. Wireless Fire Alarm Transmitter

a. Install government provided Kingfisher transmitter with the associated hardwire and components for fire.

b. Install a Kingfisher transmitter for each facility.

c. It is the contractor responsibility to coordinate fire alarm system zone points programming with FCFP Office.

d. The transmitter shall operate for a minimum of 72-hours plus 15-minutes on secondary (battery) power source.

e. When the Kingfisher transmitter is connected to an emergency back-up generator, then the secondary (battery) power source maybe reduce to 24-hour in the non-alarm (supervisory) state and 15-minutes in alarm.

4-9. Installation Drawings of Record

As-built drawings, at a minimum, shall include the following information:

a. Drawing shall be to an indicated scale 1:8 is the smallest acceptable scale.

b. All conduit runs.

(1) All conduits shall be illustrated as installed overlaid on a floor plan to scale.

(2) Identify all cable circuits within each conduit and direction of travel from "B" side (output) side of the circuit to "A" side (return) side of the circuit.

c. Device and appliance locations.

(1) Show all devices and detectors with addresses overlaid on a floor plan(s) to scale.

(2) Show all notification appliances (strobes and speakers) with addresses and labels overlaid on a floor plan(s) to scale.

(3) All floors plans shall be to scale with correct room numbers and nomenclatures.

(4) Physically label each appliance (speaker and strobe) and devices as labeled on as-built drawings.

(5) Labeling shall be on clear or white tape with black letters.

(6) All symbols shall comply with NFPA 170.

d. Wiring drawing.

(1) Show all external wiring connections inside all panels to include fire alarm control panel, notification appliance panels, audio control unit, transmitter, and etc.

(2) Show wiring connections illustration for each device, appliance, module, etc. installed in the system. Example: when a module is added, all wiring connections between the module and the panel the shall indicated.

e. Point-to-point wiring diagram.

(1) The point-to-point wiring diagram illustrates the exact wiring connections between device to device, appliance to appliance, panel to device and appliance, panel to panel, and etc.

(2) All drawings and diagrams shall illustrate exactly the structure and the installation of the system.

(3) Each drawing shall have the signature and certification number of the Fire Protection Engineer or National Institute for Certification in Engineering Technologies Level IV Technician.

f. All symbols shall conform to NFPA 170, Standard Symbols.

g. A complete accurate set of as-built drawings, preliminary test results, and installation, owner, and maintenance manuals are required to perform initial fire alarm and mass notification acceptance test. It is the contractor responsibility to coordinate and provide these documents to FCFP Office seven days prior to test date.

4-10. Manuals and Information

a. Installation manual.

b. Operation manual.

c. Maintenance manual.

d. Troubleshooting information.

e. Program instruction.

f. Battery calculations.

g. All drawings on CD.

h. One complete hard copy set of accurate as-built drawings.

(1) All individuals involved in the design, installation, programming, and testing of the system shall certify all drawings, manuals, and test results are accurate.

i. Preliminary test results.

j. Inspection and testing results document.

k. Copy of Certification of persons responsible in the design, installation, programming, and testing of the system.

l. Copy of Certificate of Calibration for each piece of test equipment.

m. Record of Completion.

4-11. Preliminary Test

a. Perform and record all test results and what is required by all applicable codes and manufacturer to include, but *not* limited to, NFPA 72, Section 10; UFC 3-600-01; UFC 4-010-01; UFC 4-021-01; UFGS 28-31-76 (13859); and applicable codes and standards except as modified herein.

b. All as-built drawings, Manuals and Information, and Preliminary test results shall be provided to the FCFP Office seven days before Final Test and Inspection to be witnessed by this office.

4-12. Electromagnetic Door Holders

a. Where indicated on drawings, provide magnetic fire door hold open devices. The electromagnetic holding devices shall be designed to operate on 24-volts direct current and require *not* more than 3-watts of power to develop 25-psi of holding force.

b. Under normal conditions, the magnetic shall attract and hold the doors open.

c. The initiation of any fire alarm shall cause the release of the electromagnetic door holding device permitting the door to be closed by the door closer. Operation shall be fail safe with no moving parts. Electromagnetic door hold-open devices shall *not* be required to be held open during building power failure. The device shall be UL listed based on UL 228 tests.

Section G-5
Knox Box

5-1. Ordering Information

a. Provide 3200 series, dark bronze, hinged door recess or surface mounted, depending on the application, “Knox Box” manufactured by “The Knox Company”.

b. The box can be purchased online at www.knoxbox.com.

c. The box is designed for rapid access to a master key to a facility, this reduces any damage gaining entry to a facility.

d. Knox Box brand entry boxes are used across the installation, the FD holds the master key to the box on each fire apparatus.

5-2. Installation

a. Box shall be installed on the exterior of the building within 10’ of the entrance door normally used by the FD to access the building.

b. The top of the box shall be installed *no* higher than 6’ nor lower than 5’ from the adjacent ground level.

c. The box must be installed in such a manner as to be clearly visible and free from any obstruction (including trees, bushes, etc.)

d. The box shall *not* be painted as this hampers and in some cases, *prohibits* entry into the box. Boxes that have been painted must be replaced.

e. The red reflective KNOX-BOX® decal shall be placed on the entrance door of the site normally used by the FD, 5’ above the adjacent ground level.

f. Variances to location, due to obstacles, may be approved by the FCFP Office.

g. It is the responsibility of each agency occupying the building to provide a key that can access the main doors within the facility.

Section G-6
Portable Fire Extinguishers

a. Install portable dry chemical Class ABC fire extinguishers IAW all applicable NFPA, UFC, and IBC code criteria including the manufacturer recommendations.

b. Provide 10lb portable dry chemical fire extinguishers with flush or semi-mounted approved cabinets IAW NFPA 10 and UFC 3-600-01.

c. FC *preference* for extinguishers is AMEREX or Badger.

d. FC color *preference* for fire extinguisher cabinets is red or white.

e. Install fire extinguishers along the path of egress in clear view.

f. Where visual obstructions *cannot* be avoided, provide signage to indicate the extinguisher location.

g. Provide minimum of one (1) each two-liter size wet chemical portable fire extinguishers mounted in recess or semi-recess cabinets in all commercial and kitchenette cooking areas.

h. Provide minimum of one (1) each 10lb Class ABC portable fire extinguishers mounted in recess or semi-recess cabinets in commercial and kitchenette cooking areas for fires other than cooking fires.

i. Install all portable fire extinguishers with the top of the fire extinguisher 42” from the finish floor.

Section G-7
Heating, Ventilation, Air Conditioning (HVAC)

a. Install smoke detectors, dampers, doors, and other equipment IAW NFPA 72, NFPA 90A, manufacturer recommendation and specification, and all other applicable codes and or standards, except as modified herein.

b. Install smoke detectors listed for use in air distribution systems as follows:

(1) Downstream of the air filters and ahead of any branch connections in air supply systems having a capacity equal to or greater than 2000 cubic feet per minute.

(2) Prior to the connection to a common return and prior to any recirculation or fresh air inlet connection in air systems having a capacity equal to or greater than 15,000 CFMs.

(3) At each story prior to the connection to a common return and prior to any recirculation or fresh air inlet connection in air systems having a capacity equal to or greater than 15,000 CFMs and serving more than one story.

(4) Duct smoke detectors shall be furnished by the fire alarm company.

c. Hardwire all duct smoke detectors to the air handler unit that the duct detector is monitoring.

d. Provide a detector with a remote indicator and test switch for installation in locations more than 10' above the finish floor or in arrangement where the detector's alarm or supervisory indicator is *not* visible to responding personnel. Location must be approved by the AHJ.

e. Shut down all HVAC units on any fire alarm utilizing the hardwired duct smoke detector and the HVAC computer program.

f. HVAC units shall be Shut down in the event of fire alarm activation.

g. Provide smoke detection in room(s) and or areas where air handler unit(s) less than 2000 CFMs are located. Smoke detection activation shall shut-down all air handler units located within that room or area. Detection activation shall *not* activate the building general evacuation notification appliances; however, it shall generate a special supervisory alarm that is transmitted to Central Station.

h. "Emergency HVAC Shut Down" Switch.

(1) Shut down all HVAC units that distribute outside air within a facility when "Emergency HVAC Shut Down" switch is activated.

(2) Close all required dampers IAW UFC 4-010-01 when "Emergency HVAC Shut Down" switch is activated.

Section G-8
Elevator Hoist Ways and Machine Rooms

a. Install elevators IAW American Society of Mechanical Engineers A17-1, NFPA, UFCs, UFGS, and all applicable codes and standards except as modified herein.

b. All hoist ways and machine rooms will be two (2) hour fire rated.

c. Provide heat detector within 2' of sprinklers when sprinklers are required to be installed in elevator machine room and hoist way (refer to UFC 3-600-01).

d. Heat detector shall have both a lower temperature rating and a higher sensitivity as compared to sprinklers.

e. Heat detectors shall activate prior to sprinkler activation and shut down elevator power.

f. Program a time delay equal to the amount of time for the elevator to travel from the top of the hoist way to the lowest recall level before activation of the power shunt trip in conjunction with heat detector activation.

g. Water flow or pressure switch shall shut down elevator power immediately upon activation. The use of devices with time delay switches or time delay capability shall *not* be permitted.

Section G-9
Emergency Lighting

a. Install emergency lighting IAW NFPA 101, UFC 3-600-01, and all applicable codes except as modified herein.

b. Provide emergency lighting in all windowless locations to include, but *not* limited to, restrooms, mechanical rooms and elevator machine rooms.

c. Provide exterior emergency lighting with backup power to illuminate the pathway to public way.

d. Install emergency lighting in all facilities regardless of occupancy.

Section G-10
Exit Signage (Means of Egress)

a. Provide exit signs and directional signs IAW NFPA 101, UFC 3-600-01, and all applicable codes and standards except as modified herein.

b. Install exit signs at main exterior exit doors that are readily visible from any direction of exit access.

c. Install exit signs at all exit access and exterior doors leading to public way.

d. Provide directional signs showing the direction of travel to main exterior exit doors where the direction of travel to reach the main exit is *not* apparent.

Section G-11
Attic Access

a. Provide attic access IAW UFC 3-600-01, IBC and all applicable codes and standards except as modified herein.

b. Must have 30" or more of head clearance at point of access into attic space.

c. Access hatch can be *no* less 20" by 30" in size.

d. Access hatch must be two (2) hour fire rated, self-closing and self-latching with propped opening position and it can open up or down.

Section G-12
Roof Access

a. Provide roof access IAW UFC 3-600-01, IBC and all applicable codes and standards except as modified herein.

b. Stairways shall have handrails on at least one side. At least one handrail shall extend at least 34" above the roof surface. Such handrail may be attached to the underside of the operable hatch so that it is in the correct position for handrails when the hatch is in the open position, or it may be secured to the roof or other construction. Minor breaks in the continuity of the handrail are permitted, however, handrail sections must be generally aligned.

c. The curb at the roof opening for the roof hatch on the side where the stairs emerge from the interior shall extend above the roof surface *no* more than 9"; the curb at the roof hatch on other sides of the hatch shall *not* exceed 24" above the roof surface; and the maximum height of any portion of the hatch in a closed position shall not exceed 36" above the roof surface.

d. The rise and run of stairs to the roof shall meet regular code requirements.

e. The width of a stairway to a roof and the clear width of a roof hatch in its open position shall be *not* less than 32". Handrails, lifting mechanisms and other equipment may encroach into the required width up to 1 1/2" when the roof hatch is in a fully open position.

f. Stairways with roof hatches that do *not* meet these requirements must be labeled as **"NO ROOF ACCESS".**

Section G-13
Stairs

Stairs and handrails shall comply with NFPA 101.

Section G-14
Doors

Doors and self-closure appliances shall comply with NFPA 101, NFPA 80, UFC 3-600-01, and applicable codes and standards.

Section G-15
Fire Safety Symbols

Symbols used on all shop and as-built drawings shall comply with NFPA 170.

Section G-16
Life Safety Plan

a. Provide Life Safety Plan to scale to include:
(1) Means of egress.
(2) Exit and directional exit signs.
(3) Fire extinguishers to include cabinets and extinguisher type and size.

Section G-17
Outdoor Storage, Parking, and Loading and Unloading Areas

Provide fire hydrants spaced at 300' maximum intervals around the perimeter. Provide addition hydrants to protect facilities within the perimeter according to UFC 3-600-01.

Glossary
Abbreviations and Terms

Section I
Abbreviations

AAFES
Army and Air Force Exchange Services

AGE
Aerospace Ground Equipment

AHJ
Authority having jurisdiction

AIEP
Army Ideas of Excellence Program

AR
Army Regulation

ARNG
Army National Guard

BEQ
Bachelor enlisted quarters

BOQ
Bachelor Officer Quarters

CAM Reg
Fort Campbell Regulation

CFR
Code of Federal Regulations

COR
Contracting Officer Representative

DA
Department of Army

DES
Directorate of Emergency Services

DoD
Department of Defense

DoDI
Department of Defense Instruction

DOT
Department of Transportation

DPTMS
Directorate for Plans, Training, Mobilization and Security

DPW
Directorate of Public Works

ECC
Emergency Communication Center

EOC
Emergency Operation Center

EM
Engineering Manual

FAR
Federal Acquisition Regulation

FC
Fort Campbell

FD
Fire Department

FCFD
Fort Campbell Fire Department

FCFP
Fort Campbell Fire Prevention

FC Reg
Fort Campbell Regulation

FM
Factory Mutual

FP
Fire Prevention

FD
Fire Department

FDC
Fire Department Connection

FI
Fire Inspector

HVAC
Heating, Ventilation and Air Conditioning

Impact Area
IA

IAW
In Accordance With

IBC
International Building Code

IMCOM
Installation Management Command

KRS
Kentucky Revision Codes

LPG
Liquid Petroleum Gas

MILCON
Military Construction

MNS
Mass Notification System

MPD
Master Planning Division

MPI
Military Police Investigator

MSDS
Material Safety Data Sheets

NAP
Notification Appliance Circuit

NAF
Non-Appropriated Funds

NEC
National Electrical Code

NFDRS
National Fire Danger Rating System

NFPA
National Fire Protection Association

OSHA
Occupational Safety and Health Administration

PAM
Pamphlet

PIV
Post Indicator Valve

PM
Project Manager

PPE
Personal Protective Equipment

RAWS
Remote Automated Weather Station

SFO
Senior Fire Officer

SLC
Signal Line Circuit

SOP
Standing operating procedures

TA
Training Area

TB
Technical bulletin

TCA
Tennessee Code Annotated

TM
Technical manual

UFC
Unified Facilities Code

UFGS
Unified Facilities Guide Specifications

UL
Underwriters Laboratory

US
United States

USC
United States Code

USDA
United States Department of Agriculture

USACE
United States Army Corps of Engineers

WIMS
Weather Information Management System

Section II
Terms

Act of God/Nature
An inevitable accident or an extraordinary interruption of the course of events that no reasonable foresight or care could have prevented (e.g. lightning, windstorm, earthquake, or other natural phenomena).

Approved Equipment
Equipment that has been tested and approved by a nationally recognized testing laboratory, such as Underwriters' Laboratories, Inc. (UL); Factory Mutual, Engineering Division Laboratories (FM); Factory Insurance Association (FIA); American Gas Association (AGA); National Bureau of Standards; U.S. Bureau of Mines, and the American Standards Association. Approved equipment will be used, located, and installed IAW the stipulation in the listing of the approving laboratory. The listing refers to the inclusion of an item in publications of the approving laboratory, such as the UL Electrical Equipment List.

Arson
The crime of intentionally and maliciously setting fire to structures or wild land areas. A willful or malicious burning or attempt to burn, with or without intent to defraud, a dwelling house, public building,

motor vehicle or aircraft, personal property of another, etc. Arson is prosecuted with attention to degree of severity.

Class “A” Fires
Involve the burning of wood, paper, and similar materials. Effective extinguishers for use on Class “A” fires are water and dry chemical.

Class "B" Fires
Involve the burning of oil, grease and flammable liquids, such as gasoline, kerosene, benzene, naphtha, etc. Effective extinguishers for use on Class "B" fires are dry chemical and CO2.

Class "C" Fires
Involve electrical current, and are caused in general by electrical short circuits or failure of energized appliances, equipment or wiring. Effective extinguishers for use on Class "C" fires are dry chemical and carbon dioxide.

Class “D” Fires
Fires involving powders, flakes or shavings of combustible metals such as magnesium, titanium, potassium, and sodium require special extinguishers labeled D.

Class “K” Fires
Involve cooking media; vegetable or animal oils and fats, traditionally for extra (high) hazard. Evolution of high efficiency cooking appliances and the change to hotter burning vegetable shortening has created a more severe fire hazard. Effective extinguishers are wet chemical extinguishers.

Classification of Areas and/or Buildings
The FP is responsible in conjunction with other installation offices to classify areas or buildings as to the respective hazard class (i.e., battery charging areas, spray booths, etc.)

Combustible Liquids
Any liquid, which shall burn but has a flash point in excess of 100 degrees Fahrenheit. Combustible liquids include those such as kerosene, mineral spirits, or diesel fuel.

Combustible Material
Any material that can be ignited and will continue to burn. Noncombustible materials in combustible packages or wrappings are considered combustible. Light combustible materials are those easily ignited by momentary exposure to flame, such as cotton fabrics, etc.

Electrical Wiring Systems
Any means of conveying current, except extension and appliance cords connected to the power source by means of standard plugs in receptacles.

Fireworks
As used herein, includes a combustible or explosive composition or article prepared for producing a visible or audible effect by combustion, explosion, deflagration, or detonation. Fireworks include, but are not limited to, blank cartridges, toy pistols, cannons, canes or guns in which explosives are used. Also included are balloons requiring fire for propulsion, firecrackers, torpedoes, skyrockets, roman candles, and sparklers. Devices using paper caps manufactured IAW United States Commerce Commission regulations are not included. Pyrotechnics and other devices used in established training programs and military ceremonies are also excluded.

Fire Play
A low level of intent to inflict harm and an absence of malice.

Fire Protection System
Any fire suppression or fire detection system that provides early detection, warning, suppression, and notification to all personnel in case of an emergency, to include transmitting a signal to the Central Fire Alarm Panel. A fire suppression system is one that extinguishes a fire, such as sprinklers, halon, and dry

chemical systems. A fire detection system is one that provides early warning such as heat and smoke detectors. Both types have additional audible alarms (sounding devices), pull stations, and transmitters.

Fire Safety Equipment
Includes every type of portable extinguisher, standpipes and hose lines, water barrels and built-in extinguishing systems.

Flammable Liquids
Any liquid with a flash point below 100 degrees Fahrenheit (37.8 degrees Centigrade). Flammable liquids include but not limited to gasoline, alcohol, naphtha, lacquer paints, and thinners.

Flammable Material
Any material which can be ignited easily and burns with unusual rapidity.

Incident commander (IC)
This is the individual in charge of the operation at the scene of an emergency.

Juvenile Firesetter
Youth under the age of 18 years old who have been engaged or involved in an unsupervised use of fire. The firesetting behavior does not have to result in damage, injury, or death nor does a crime have to be committed.

Juvenile Firesetter Interventionist
A person certified to the level of Juvenile Firesetter I and/or II that intervenes in a situation or behavior of a juvenile involved in fire play. The purpose of a Juvenile Firesetter Interventionist is to offer the Juvenile and their families help in understanding fire play, what causes the behavior, and how to move on after an incident.

Juvenile Firesetter Intervention Program
A program designed to reach out within the community to educate the youth under the age of 18 and their families about the danger of playing with fire. The purpose of the program is not to punish, but provide an educational outlet about fire behavior to the youth of the community and offer a means for parents or guardians to understand why young people play with fire.

Power Strips
A power strip is a strip of sockets that attaches to the end of a flexible cable and allows multiple devices to be plugged in to the same outlet. However, they can very easily create a fire hazard if not used appropriately. Power strips are often used when many electrical devices are in proximity, such as for audio/video and computer systems. Power strips do not provide more power to a location, just more access to the same limited capacity of the circuit into which it is connected. The circuit likely also still serves a variety of other outlets and fixtures in addition to the multiple electrical items you might be supplying with the power strip. Power strips often include a circuit breaker to interrupt the flow of electric current in case of an overload or a short circuit.

Reasonable Care and Reasonable Prudence
The exercise of precautions and the control of actions which would be expected of a normally prudent person under similar conditions.

Reasonable Time
The time required to effect correction by diligent and prompt effort, and not necessarily suiting the convenience of the occupant or using service. The Post Fire Chief will determine the time allowed for correction, and this determination is final upon delivery of written notification to parties involved, or to any of their employees.

Surge Protectors
A surge protector is an appliance designed to protect your computer and other equipment from voltage spikes. The standard voltage in most outlets in U.S. offices is 120 volts. If the voltage rises above 120 volts, a surge protector helps prevent the increase from ruining your computer and its components. Many power strips have basic surge protection built in; these are typically clearly labeled as such. However,

power strips that do not provide surge protection are sometimes erroneously referred to as "surge protectors".