DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
IMCOM DIRECTORATE-TRAINING
DIRECTORATE OF EMERGENCY SERVICES
6797 KILGORE STREET
FORT BENNING, GEORGIA 31905-4500

AMIM-BEL-F 9 September 2021

MEMORANDUM FOR RECORD U.S. Army Corps of Engineers; Directorate of Family and Morale, Welfare and Recreation; Directorate of Public Works; Army and Air Force Exchange Service; and all Construction Contractors

SUBJECT: Fort Benning Installation Specific Fire Protection Requirements

1. Effective 1 October 2021, the Fort Benning Installation Specific Fire Protection Requirements will be implemented (enclosed). The requirements are designed to give engineers, designers, and others within the process specific guidance involving Fort Benning's design and construction processes while incorporating the Directorate of Emergency Services, National Fire Protection Association, Unified Facilities Criteria, and national fire protection and life safety requirements.

2. The report shall apply to the following projects:

a. All new construction projects.

b. Projects that do not qualify as new construction as defined by Unified Facilities Criteria (UFC) 3-600-01.

c. Any construction projected that has been awarded prior to the effective date.

3. If you have any questions or comments, please contact Assistant Chief of Fire Prevention Steven Lowell at steven.d.lowell.civ@mail.mil or 706-545-0283.

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Encl

TIMOTHY J. SEIGAL, Sr., EFO,
Directorate of Emergency Services
Fire Chief

Ft. Benning Installation Specific Fire Protection Requirements

1. Requirements/Compliance:

a. This Fort Benning Fire Protection Supplement shall be distributed to all General Contractors (GC) and may be distributed to other entities as needed. It shall be onsite for reference to the GC and any said sub-contractor during all phases of construction.

b. Drawing submittals shall be delivered to the Recipient: Fort Benning Fire Prevention Office; ATTN: Chief Plans Examiner; 7180 Yeager Ave, Fort Benning, GA 31905. The Fire Prevention Office will review drawings within 14 calendar days from the date received to the Chief Plans Examiner's office. Projects submitted with a suspense date(s) will be considered, however, no comments provided does not relieve the contractor from complying with the contracting documents and applicable codes and standards. Comments submitted after the requested suspense date shall be corrected to the applicable codes and standards.

c. Required Drawings: (1) full set of half-sheets (Hard Copy); digital copy with all drawings, design analysis, specifications, and any other pertinent documentation.

d. Features in excess of the requirements of Unified Facilities Criteria (UFC) 03-600-01 must be approved by the Component Fire Protection Engineer (CFPE). Where the International Building Code (IBC) references the International Fire Code (IFC), the IFC must be replaced with National Fire Protection Association (NFPA) 1, except where superseded by UFC 03-600-01. Plans not having the appropriate seal will not be reviewed by the Ft. Benning Fire Prevention Office.

i. For leased facilities, UFC 03-600-01 must apply, unless it is determined by the Designated Fire Protection Engineer (DFPE) it is not in the best interest of DoD. For conflicts between this UFC and the local municipal jurisdiction, the DFPE must be consulted.

ii. Where criteria are not included in UFC 03-600-01, fire protection criteria must conform to the requirements of the latest editions of the National Fire Codes. Where criteria are not available from the National Fire Codes, a fire protection design analysis must be submitted to the DFPE for approval.

e. All major projects require the design, review and oversight services of a Qualified Fire Protection Engineer (QFPE). A QFPE must be involved in every aspect of the design, construction and testing/commissioning as it relates to fire protection and life safety. This includes, but is not limited to, building code analysis, life safety code analysis, design of automatic fire alarm, detection and suppression systems, water supply analysis, a multi-discipline review of the entire project, construction inspections and witnessing of fire protection acceptance testing/commissioning. This requirement is applicable to engineering services for design-bid-build projects as well as all phases of design-build projects including RFP development, design development, and construction.

f. Army requires construction (shop) drawings and calculations must be prepared by, or prepared under the immediate supervision, of the QFPE. The QFPE must affix their professional

engineering stamp with signature to the shop drawings, calculations and material data sheets, indicating approval prior to submitting the fire alarm system shop drawings to the DFPE. The QFPE must monitor the installation of the fire alarm system and certify in writing that the fire alarm system has been constructed and operates as intended in the design plans and specifications.

g. Upon request, the QFPE shall submit a written copy of their resume indicating education, professional registration and work experience, along with a letter attesting to their compliance with the requirements of this section. The letter must include an imprint of their professional engineering stamp with signature.

h. A fire protection design analysis and life safety plans must be provided for all major projects and must address the fire protection requirements of the project as required by UFC 03-600-01. The fire protection design analysis and life safety plans must be submitted with the initial design submission, separate from other disciplines. The final design analysis and life safety plans must be signed and sealed by the QFPE.

i. The QFPE must review the complete 100 percent design drawings and specification submission (all disciplines) and document in writing that the design is in compliance with this UFC and all applicable fire protection and life safety design criteria. The review must provide verification that all items listed in the design analysis are correctly shown on the drawings and in the specification and list any approved equivalencies or deviations from this UFC. This design compliance document must be submitted with the final design submission as part of the design analysis and must bear the signature and professional seal of the QFPE.

j. A copy of the buildings as-build's will be submitted on a CD/thumb drive to the Ft. Benning Fire Prevention Office to cover at a minimum of the floor plan, fire protection plan, and fire alarm system.

k. During construction the contractor shall maintain compliance with all listed safety codes to include NFPA 241 and USACOE EM 385-1-1 under the most current edition.

l. Hot Work Permits are required for any operations for which work is being accomplished IAW NFPA 51B.

i. Request for hot work permits shall be coordinated with the Lead Fire Inspector's office prior to any hot work operation. Due to scheduling and mission requirements, it is recommended initial permits be requested 7 business days prior to work start.

ii. Permits may be provided in 90 day increments depending on user compliance and safety status. Permits may be revoked for violations of codes/standards, disregard of safety requirements, and/or improper or non-issue of hot work permits.

iii. See Appendix A for contractor/requestor responsibilities.

2. KNOX Box:

a. KNOX boxes shall be required on all facilities.

b. KNOX boxes shall be located 4-5 ft. from final grade, within 5 ft. of linear distance from the main entrance. If the facility has no main entrance or cannot meet the distance requirements due to construction materials, the Ft. Benning Fire Prevention Office will determine the location of the KNOX box.

c. KNOX boxes shall be a 4500 series, recessed or flushed mounted, and can be monitored by the security system, if required. The 4500 series shall activate a shunt to disconnect all power to the facility to include but not limited to any additional power sources (e.g., solar panels/wind turbine(s)).

d. KNOX boxes shall be black or red in color. Any changes of color shall be coordinated and approved by the Ft. Benning Fire Prevention Office prior to purchase/install. A standard KNOX Box may be required on a gate or similar entry when a facility has a security fence impeding emergency vehicle access.

3. Emergency Response Access:

a. If electric gates are provided on an emergency access road, a siren activator device shall be provided to automatically open the gate for emergency vehicles. The gate shall have a power source provided for a minimum of 24 hours in the event of power loss or fail with the motor in a neutral position.

b. If provided, curbs shall be the roll on type access to the fire department access road.

c. All emergency access lane entrances shall be striped in red to include painting the curb and white lettering stating “fire lane, no parking”. Fire department access lanes shall consist of roadways, fire lanes, parking lot lanes, or a combination thereof IAW NFPA 1. Fire department access marking will be coordinated with the Ft. Benning Fire Prevention Office.

d. Emergency access lanes shall be a minimum of 20 ft. wide and support 83,500 lbs. All facilities greater than 5,000 ft2, or more than two stories in height, must have at least one means of all-weather ground access to allow emergency vehicles unimpeded access to the facility. All-weather ground access must be paved, start from the road, and terminate no farther than 33 ft. from an exterior door accessible for fire department ingress (e.g., a stair door or some other exterior door that provides access to the facility interior). The route between the access surface and exterior door must be able to be traversed without the use of a ladder. An engineered all-weather surface that is not paved may be provided if approved by the DFPE.

e. All new facilities four stories or more in height and all new warehouses shall have a minimum of a 26 ft. wide fire lane and must be provided with suitable all-weather ground access for aerial apparatus on a minimum of two sides of the perimeter of the structure. The access must

be parallel to at least one entire side of the Facility with windows to allow aerial access to the entire side. The distance between the aerial apparatus access and the facility must be based on the responding aerial apparatus and facility height and be approved by the DFPE.

f. Fire department access, as required per the UFC 3-600-01, shall be provided from the corner to corner of the structure. **

**Special consideration shall be taken into account for facilities that do not meet the requirements four stories or more than height, but have complex layout or a long length of that is not accessible from the emergency access road.

4. Fire Hydrants:

a. Fire hydrants shall be installed a minimum of 18 in. from center nut of main discharge from final grade and no more than 36 in.

b. Fire hydrants installed near roadways shall have a DOT listed blue roadway indication marker at the center line of the road.

c. Fire hydrants install near roadways or parking areas shall have a 20 ft. red line painted on the curb to indicate a dedicated “no parking area”. The line shall be centered at the 10ft. mark in front of the hydrant.

d. Fire hydrants shall be protected in areas that can be prone to vehicle access. If bollards are used they shall be at least 3 ft. in distance from the center of the hydrant and cannot block the discharges of the fire hydrant.

e. Fire hydrant bonnet and cap color shall be in accordance with NFPA 291, *Fire Flow and Marking of Hydrants,* based on flow capacity.

f. Fire hydrants shall be the dry barrel type and have a 4.5 in. Stortz connection.

5. Electrical:

a. Emergency lighting shall be provided in all mechanical, electrical, and communication rooms greater than 100 sq. ft.

b. All emergency lighting and exit sign devices shall be self-diagnosing to identify a fault with the fixture.

c. Emergency lighting replaced as part of a service order must comply with NFPA 101 installation and testing requirements.

6. Suppression System:

a. A Class I standpipe system must be provided in all required exit stairs of facilities four stories or more in height.

b. For facilities less than four stories in height, provide a Class I standpipe system where all portions of the building (on any floor) cannot be reached from an exterior door in less than 450 ft.

c. The fire department will not use fire department apparatus to boost pressure in automatic standpipe systems.

d. Structures containing three or more sprinkler zones shall have isolation valves allowing only one zone to be turned off while maintaining the other zones operational.

e. All suppression systems using a clean agent system shall have a notification device located on the outside of the structure that will activate only when the system is discharged.

f. The bell type for all sprinkler systems shall be electric unless otherwise noted by the installation fire department.

g. Fully concealed sprinkler heads shall be required in any open bay, recruit barracks.

h. Any sprinkler head located lower than 7 ft., can be prone to mechanical damage, or can be grabbed by a hand shall be caged or fully recessed.

i. Sprinkler heads will be required to be installed in full prior to requesting a hydrostatic pressure test.

j. Wet systems shall require an air vent IAW NFPA 13.

7. **Fire Department Connection (FDC):**

a. A red collar shall be used to identify the fire department connection.

b. When the fire department connection is not located on the front of the building, signs shall indicate in which direction the FDC is located. The sign shall be red with white lettering. The lettering shall be a minimum of 3in. in height.

c. The FDC shall be between 18 in. and 48 in. from final grade and cannot be obstructed by landscaping.

d. No landscaping shall be installed in front of the FDC that can grow taller than 18in.

e. Nothing shall be installed within 18 in. linear of either side of the FDC.

f. Test headers/wall hydrants shall be tested at the sprinkler final to verify the required GPM shown on the sprinkler density plate is met.

g. When a FDC is installed in front of a parking area, a 10 ft. (linear length) wide red stripe will be painted identifying “NO PARKING”.

h. If system pressure is greater than 150 psi, a sign shall be installed at the location of the FDC to indicate the pressure required at the inlets.

8. Fire Alarm/Mass Notification Systems (FA/MNS):

a. All fire alarm systems shall be UL 864, current edition compliant. All MNS shall be Underwriters Laboratory (UL) 2572 compliant.

b. Secondary Power shall be 48 hours for all systems to include all associated appliances and devices.

c. At final inspection, the installer/contractor shall show documentation of speech intelligibility IAW NFPA 72 and UFC 4-021-01.

d. Carbon monoxide (CO) detection shall be installed to provide coverage in all facilities that are serviced by natural gas, propane, or any other combustible gases or liquids. CO detection is to be monitored and powered by the fire alarm control panel (FACP). Activation of a CO detector will shut down the facility HVAC system. CO detector activation will report to the FACP and transmit as a supervisory. CO announcement will be IAW UFC 3-600-01.

e. All detection devices shall be required to pull their back-up power from the FA/MNS system. No 9 (nine) volt batteries shall be permitted.

f. Smoke detectors shall not be installed within an area of exclusion determined by a 10 ft. radial distance along a horizontal flow path from a stationary or fixed cooking appliance, unless listed for installation in close proximity to cooking appliances.

g. All local operating consoles (LOC) shall be installed at the same height as a manual pull station.

h. In fully sprinkled facilities, at a minimum, pull stations shall be installed at all ground level exits.

i. The MNS shall be required to transmit a trouble, supervisory, and alarm functions to the Ft. Benning 911 Center while meeting the requirements of NFPA 72. All messages shall be point addressable regardless how activated. (Example: If the chemical button is pushed, it shall transmit an identification of chemical button active and LOC location to the central receiving station). MNS microphones will also be point addressable. All MNS supervisory signals shall be

displayed at the FACP and be point addressable.

j. Text signs for the MNS shall be provided IAW UFC 4-021-01.

k. FA/MNS shall transmit through the use of an IP transmitter in combination with or without a DACT communicator. DSC TL300CF is a compatible transmitter, but any IP transmitter that is compatible with a DSC Sur-Gard III IP receiver shall be permitted. Cell phone dialers are not authorized to transmit fire alarm status.

l. During the activation of the FA, the MNS system shall override the FA. The FA notification devices will shut off and the MNS notification devices shall activate. All prerecorded message shall automatically shut off at 10 minutes. At the end of 10 minutes the MNS devices shall shut off and the FA notification devices shall reactivate.

EXCEPTION: The circuit labeled “fire panel” does not time out at ten minutes if used as the part of the fire alarm system.

m. All strobes shall be marked with the word “ALERT” on the device, the lens **CLEAR** and the faceplate shall be red/white in color.

n. Device priorities shall be as follows: MNS main panel microphone, LOC’s, MNS main panel prerecorded messages circuits 1-7 (circuit 1 given the highest priority), fire alarm system, carbon monoxide, and finally general PA system.

o. MNS messages shall be listed in the priority shown below verbatim (see Appendix E):

i. Chemical - May I have you attention please. There has been a chemical incident on Fort Benning. Stay inside buildings and close windows and doors unless advised by authorities to evacuate. Please shutdown your HVAC system. Stay inside buildings and close windows and doors unless advised by authorities to evacuate area. Please shutdown your HVAC system. (Chemical MNS activation will shut down facility HVAC system.)

ii. Bomb - May I have your attention please. There has been a bomb threat in your area. Please evacuate in an orderly fashion to your rally point. I repeat, there is a bomb threat in your area. Please evacuate in an orderly fashion to your rally point.

iii. Intruder - May I have your attention please. There is an intruder in your area. Please lock all windows and doors immediately. Only admit authorized personnel. Attention. There is an intruder in your area. Please lock all windows and doors immediately. Only admit authorized personnel.

iv. Severe Weather - May I have your attention please. A severe weather warning has been issued for area. Seek shelter immediately.

v. Secondary Egress - May I have your attention please. An emergency has been reported

in the facility. Please exit the facility through the secondary exits. Please do not use the main entrance.

vi. Test - May I have you attention please. This is a test. This is a test of the emergency warning system. This is only a test. This is a test. This is a test of the emergency warning system. This is only a test.

vii. All Clear - May I have your attention please. All clear, the emergency is over. I repeat, all clear, the emergency is over. Resume your normal duties.

p. MNS LOCs installed in areas that are open to the public shall have unrestricted access to the LOC. They shall not be secured and/or require the use of a key or special device to access the LOC.

q. If a remote fire alarm panel (remote annunciator) is provided in the structure, an LOC shall be provided next to the remote fire alarm panel.

r. All LOCs that are not easily identifiable shall be labeled on the front of the LOC cabinet in a minimum of 1in. lettering, in contrasting color.

s. An LOC shall be located on each floor and at any time where the travel distance is greater than 200 ft. from the closest LOC.

t. MNS announcements shall be provided inside all occupiable spaces to include, but not limited to, the elevator, mechanical, POL storage, or other areas determined by the AHJ.

u. Each mass notification system shall be compatible with the installation's Whelen giant voice system to receive messages.

v. All pull stations located in areas designed for children (example: child development centers, schools) shall have pull station covers installed.

w. Identification of all conduit, junction/back boxes, covers and couplings, when provided, must be IAW UFC 3-600-01.

x. General fire alarm will shut down facility HVAC system. For large facilities with multiple HVAC systems, general fire alarms will be permitted to shut down HVAC units based on a zoning system.

y. Duct smoke detectors will transmit as a general fire alarm.

9. Fire Signage:

a. Fire evacuation plans shall be posted at each entrance/exit and at each doorway leading into the stairwell.

b. Any stairwell that leads to roof access will be identified on the fire evacuation plan and in the stairwell on each landing.

c. All structures with assembly areas or classified as an assembly occupancy must provide signs indicating the maximum occupancy for that area or be provided at the main entrance of an assembly occupancy.

d. Any room containing the FACP shall have signage on the door indicating FACP. The sign shall be in contrasting color (example: red/white) with 2 in. lettering.

e. Any room containing the sprinkler riser shall have signage on the door indicating the sprinkler riser is located inside. The sign shall be in contrasting color (example: red/white) with 2 in. lettering.

f. Any single room that contains roof access shall have signage indicating roof access. The sign shall be in contrasting color (example: red/white) with 2 in. lettering.

10. Fire Rated Areas:

a. Fire rated areas shall be identified on the wall listing what type of wall it is and the hour rating of the wall. (Example: 1 Hour Fire Barrier)

b. Fire Caulk shall be either red or yellow in color and shall be installed in accordancewith the manufacture's listed detail.

c. UL listed detailed drawings for penetrations of fire rated areas shall be provided to the Ft. Benning Fire Prevention Office prior to inspections.

11. Fire Rated Doors:

a. Fire rated roll-up doors shall be integrated into the fire alarm system. Upon activation of the fire alarm system, all fire rated roll-up doors shall close. Detection devices shall be installed in accordance with NFPA. Roll down doors shall not gravity drop, but have resistance as to not to injure anyone.

b. All rated doors in the path of egress shall be equipped with magnet locks to hold to doors open during normal operation. Upon activation of the fire alarm system, all rated doors shall close. Detection devices shall be installed in accordance with NFPA 72, *National Fire Alarm and Signaling Code*.

c. All fire rated doors in the path of egress that are normally closed shall have signage identified as "fire door keep closed".

12. Fire Extinguishers:

a. General purpose portable fire extinguishers must be provided when required by NFPA 101.

b. Fire extinguishers for all sprinkled structures shall be a minimum of a 5 lb. 3A:40B:C rated multi-purpose fire extinguisher.

c. Fire extinguishers for all nonsprinklered structures shall be a minimum of a 10 lb. 4A:80B:C rated multi-purpose fire extinguisher.

d. A Class "D" dry powder fire extinguisher shall be provided for all metal shops and areas with combustible metal.

e. A Class "K" Wet-Chem fire extinguisher shall be required in commercial kitchens IAW NFPA 10. This does not waive the requirement for an ABC fire extinguisher.

f. All fire extinguishers located in a fire extinguisher cabinet shall be labeled with a fire extinguisher sticker and/or label.

g. Fire extinguisher cabinets shall be provided in all finished areas and fire extinguisher brackets shall be provided for all unfinished areas.

h. Fire extinguishers will be placed IAW NFPA 10.

13. Elevators:

a. At least one elevator must accommodate EMS access to all floors of the building. Design elevator to accommodate a 24 in. by 84 in. ambulance stretcher in the horizontal, open position. Identify the elevator with 2 in. minimum sized "Star of Life" sticker on each lobby door.

b. Before use of any elevator, an inspection certification issued by the State of Georgia or approved third party inspector shall be required regardless of use.

14. Authority Having Jurisdiction (AHJ) and Final Inspection Requirements:

a. Fort Benning Fire Prevention Division represents the Assistant Chief of Staff for Installation Management (Army Fire Chief) with regards to plans reviews, inspections, and code compliance.

b. The Installation Fire Chief is the local AHJ for the Ft. Benning Fire Protection Supplement. Any exception request for the Ft. Benning Fire Protection Supplement should be sent to the AMIM-BEL-F (Assistant Chief of Fire Prevention). Ft. Benning Fire & Emergency

Services is not the AHJ for UFC exceptions, deviations, or interpretations.

c. Requests for any construction/final inspection (Except Hot Work Permits) must be requested from the USACE, DPW, AAFES, and/or MWR project managers/inspectors. NO appointment will be granted to any GC or Sub-Contractor.

d. Prior to requesting a final inspection from the Fire Prevention Division, an inspection shall be completed by USACE, DPW, AAFES, and/or MWR assigned project manager or Quality Assurance (QA) inspector(s).

i. Sprinkler Tests – Witnessed pre-test shall be accomplished by the above agency project inspector and/or designated representative from the assigned agency for QA. Method of inspection used shall ensure that the requirements of NFPA 13 are met prior to scheduling a final with Fire Prevention Division.

ii. FA/MNS – Witnessed pre-test shall be accomplished by the above agency project inspector and/or designated representative from the assigned agency for QA and coordinated with TIYA Support Services. Method of inspection used shall ensure that the requirements of NFPA 72 are met and the template is accurately loaded in the MAS prior to scheduling a final with Fire Prevention Division.

e. Construction and Final Inspections are on a first come first serve basis. It is not the responsibility of the Fire Prevention Division to prioritize inspections with regards to outer agency priorities.

f. During any inspection, if any portion of the construction/final inspection(s) fails it should be assumed the contractor is NOT ready for inspection, and the inspection may be discontinued. At the discretion of the fire inspector, inspectors may use their professional judgement if items are easily correctable and whether to continue the inspection. Re-inspections will be based on the availability of manpower and time.

g. Final inspections for both fire alarms and sprinklers require the installing contractor to be on-site for all initial and re-inspections. It is the responsibility of the QA or designated representative to ensure all parties required for a final are scheduled and coordinated for said inspection(s). (Example: Fire Alarm acceptance requires, Fire, TIYA (Alarm Shop and MAS Technician), QA, GC, and Sub-Contractor). See Appendices B and C for further guidance.

Appendix A
Hot Work Compliance and Issuance

A daily hot work permit must be issued by the receiving official of this inspection report or by a designated supervisor overseeing the work being completed. This person must be appointed on paper and a copy must be available to any fire inspector upon request.

(DESIGNATED PERSON'S) is the supervising official and will perform all pre/post hot work operations as required or any other supervisor (appointed in writing). Personnel requesting permit are not authorized to conduct ANY portion of the pre/post operation(s).

(COMPANY) shall document in writing personnel who are authorized to issue said permits and/or supervisory personnel for whom will be authorized to conduct pre and post operation(s) fire prevention and safety checks. Furthermore, it is the understanding of (COMPANY), personnel doing said hot work are not authorized to perform and/or sign off on any portion of the issued hot work permit with regards to pre and post operational safety checks at the end of the working day.

(COMPANY) will develop and implement a hot work permit with all required information as outlined on DA Form 5383 specifically for (COMPANY) and understand hot work permit(s) is ONLY to be used for (COMPANY). Hot work permit number issued by the Fire and Emergency Services Fire Prevention Division will be on all issued permits followed by a sequential number followed there after (Example 12345-1). Records of issued permits must be maintained on file and available for review or inspection at any time during and/or after issued permit date(s).

It is the understanding of (COMPANY) and Fort Benning Fire Prevention Division, any failure to meet the required referenced standards, codes, and/or regulations with regards to hot work operations could result in loss of permit and work stoppage.

Please sign and maintain a copy of this inspection report for your records. Failure to sign makes your hot work permit void. Your permit expires on (DATE) and it is your responsibility to contact Fort Benning Fire Prevention office to renew your permit. Any questions please feel free to contact the issuing fire inspector.

Appendix B
Fire Alarm Acceptance Checklist

Instructions:

Inspectors are expected to check each of the items listed on the attached sheet during a fire alarm final inspection. This is not a complete list of all potential items, but a guideline to ensure that all inspectors observe certain minimum tests and to provide consistency. Inspectors can and should request additional tests as appropriate for unique or unusual systems. Any listed item not checked by the inspector shall be documented and explained on the inspection form, unless it is not applicable to the particular system.

The fire alarm technician should have already tested and verified the complete installation of the system, witnessed by a government representative. He/she should be ready to test any and all parts of the alarm system upon request per Unified Facilities Code (UFC) 03-600-01/04-021-01; National Fire Protection Association (NFPA) Standard 72.

The tests witnessed by Fort Benning Fire Department inspectors are intended to verify that the alarm contractor has installed and tested the system IAW all UFC/NFPA codes and standards. It is the function of the fire alarm contractor to certify the system has been installed, tested, and is working as designed. Therefore, if any portion or device in the system fails during the inspection you should assume the contractor is **NOT** ready for inspection, and discontinue the inspection. At the discretion of the fire inspector, inspectors may use their professional judgement if items are easily correctable.

It is not the function of the inspectors to provide a "punch list" of deficiencies for the contractor. If the system fails to meet all requirements at the time of the inspection the contractor should be advised to reschedule when defects have been corrected. Re-inspection will consist of a full inspection, not just a checks of deficiencies listed previously.

NOTE: If applicable, automatic fire suppression system alarm-initiating devices and supervisory signal-initiating devices shall be installed per NFPA 25 and are normally tested during the fire alarm final.
NOTE: If applicable, automatic fire pumps shall be supervised per NFPA 20 and are normally tested during the fire pump final.

NOTE: If applicable, fire suppression systems used for the removal of smoke & grease laden vapors from commercial cooking equipment shall be installed per NFPA 96 and are normally tested during the hood system final.

This checklist is a basis line for inspection thus does not relieve the contractor from complying with the contracting documents and applicable codes and standards.

Fire Inspector:_____ Date:_____

Alarm Shop Representative:_____

Facility Number:_____ Facility Name:_____

Construction Manager/Phone:_____

Fire Alarm Contractor/Phone:_____

ITEM OR AREA TO BE CHECKED	Yes	No	N/A
Documents shall be made available prior to system testing, which include: Record of completion , drawings of the fire alarm system (showing locations of each device and the number assigned to each device in the system, and shall be kept with the system record log), manufacture's proper testing & maintenance requirements, operational manuals and an inventory of all alarm components.			
Test shall be performed in witness of the TIYA fire alarm maintenance shop. Fire alarm shop is responsible for the testing and maintenance of equipment, once it is accepted by the DoA. Acceptance will not be approved by Fire Department inspector without approval of the fire alarm shop rep.			
Rechargeable batteries will operate the fire alarm system under supervisory conditions for 48 hours and all alarm devices for an additional 15 minutes IAW UFC 3-600-01. Verify the FACP is showing a trouble for the loss of primary power and the trouble is received at the MAS.			
Reconnect primary power and disconnect secondary power. Ensure trouble indication is displayed and TYIA MAS control shop receives indication.			
MAS transmitter (IP Communicator) will send trouble, supervisor, and fire alarms to fire dispatch. Must confirm this with the TYIA MAS control shop. Confirm all overrides are displayed correctly.			
All initiating devices shall be tested according to the manufacturer's recommendations and applicable codes and standards (The alarm contractor must provide the necessary tools needed to test the devices during the alarm final.) Ensure TYIA MAS control shop receives all activations.			
Visual and audible notification appliances are functional, sound level meets audibility requirements, and speech intelligibility. (15 dB above average sound levels, or 5 dB above maximum sound level, measured 5 ft. above the floor/Speech Intelligibility .75-.84 {documentation required})			
Are all visual notification devices, in the same areas, operating in-sync with each other?			
ELEVATORS: If applicable, each elevator lobby, hoist way, machine room smoke detector initiates elevator recall when other devices have been placed in alarm. Check smoke detector on recall floor to ensure elevator does not return to fire floor.			
All exits connected to the fire alarm unlock both upon receipt of alarm and loss of electrical power.			
All air duct smoke detectors have remote alarm indicators in a readily accessible location, clearly labeled to indicate their function and the air-handling unit they are associated with and the detector is individually identified at the fire alarm control panel (addressable systems).			
All notification and/or indication devices shall be labeled for location.			
Check the release and closure of any smoke/fire doors. Operation should occur when fire detection system is activated.			
Manual Fire Alarm Boxes: Operable portion not less than 3 ½ ft. & not more than 4 ½ ft. above floor level. Located within 5 ft. of the exit doorway opening at each exit on each floor. Travel distance no more than 200 ft. to the nearest box.			
Audible Notification Appliances: Appliances shall have the top of the appliance not less than 90 inches above the floor & not less than 6 inches below ceilings. Combination appliances (both audible and visible) must be located not less than 80 inches & not greater than 96 inches from floor.			
Visible Notification Appliances: Located not less than 80 inches & not greater than 96 inches from the floor.			
HVAC Detectors: Located IAW manufacturer's recommendations.			
Spot-type Heat and Smoke Sensing Fire Detectors: Located on the ceiling not less than 4 inches from the sidewall or on the sidewalls between 4 inches and 12 inches from the ceiling.			
An automatic smoke detector must be provided at the location of the fire alarm panel IAW NFPA 72.			
Government rep shall ensure contractor provides a minimum of 4 copies of the NFPA 72 paperwork (Record of Completion and Record of Inspection and Testing) to include a copy of the template and speech intelligibility report. An electronic copy of the programming shall be placed inside the panel.			

Appendix C
Fire Sprinkler/Suppression Acceptance Checklist

Instructions:

Inspectors are expected to check each of the items listed on the attached sheet during a fire suppression final inspection. This is not a complete list of all potential items, but a guideline to ensure that all inspectors observe certain minimum tests and to provide consistency. Inspectors can and should request additional tests as appropriate for unique or unusual systems. Any listed item not checked by the inspector shall be documented and explained on the inspection form, unless it is not applicable to the particular system.

The fire suppression technician should have already tested and verified the complete installation of the system, witnessed by a government rep. He/she should be ready to test any and all parts of the suppression system upon request per National Fire Protection Association (NFPA) Standard 13.

The tests witnessed by Fort Benning Fire Department inspectors are intended to verify the sprinkler contractor has installed and tested the system IAW all UFC/NFPA codes and standards. It is the function of the fire suppression contractor to certify the system has been installed, tested, and is working as designed. Therefore, if any portion or device in the system fails during the inspection you should assume the contractor is **NOT** ready for inspection, and discontinue the inspection. At the discretion of the fire inspector, inspectors may use their professional judgement if items are easily correctable.

It is not our function to provide a "punch list" of deficiencies for the contractor. If the system fails to meet all requirements at the time of the inspection the contractor should be advised to reschedule when defects have been corrected. Re-inspection will consist of a full inspection, not just a checks of deficiencies listed previously.

NOTE: If applicable, automatic fire pumps shall be supervised per NFPA 20 and are normally tested during the fire pump final.

NOTE: If applicable, fire suppression systems used for the removal of smoke & grease laden vapors from commercial cooking equipment shall be installed per NFPA 96 and are normally tested during the hood system final.

Fire Inspector:_____ Date:_____

Alarm Shop Representative:_____

Facility Number:_____ Facility Name:_____

Construction Manager/Phone:_____

Fire Alarm Contractor/Phone:_____

ITEM OR AREA TO BE CHECKED	Yes	No	N/A
Test shall be performed in witness of the TYIA utilities shop. The utilities shop is responsible for the testing and maintenance of equipment, once it is accepted by the DoA. Acceptance will not be approved by Fire Department inspector without approval of the TYIA utilities shop representative.			
Locate the fire department connection and ensure;			
It has protective bollards if it's location is remote			
If the system covers only specific areas those areas are identified directly on FDC			
FDC must have protective caps/plugs			
Hydrant must be located within 150' of FDC			
If system demand is above 150 psi (check plate on riser) operating pressure must be marked			
FDC must have check valve and a drip valve, it must be accessible			
FDC must be located within 150' of an access road			
FDC must be located between 18 inches and 48 inches above the ground			
FDC properly connected to riser: *Wet single riser – connects to the system side of the valve Wet multi riser – connects to the supply side of the valve* *Dry system – connects between indicating control valve and dry pipe valve*			
Labels (IAW NFPA 13) *Valves*:			
Ensure pressure gauges are located on both sides of the system alarm valve (clapper).			
All control, drain, and test connection valves shall be provided with permanently marked weatherproof metal or rigid plastic identification signs. The identification sign shall be secured with corrosion-resistant wire, chain, or other approved means. The control valve sign shall identify the portion of the building served.			
Hydraulic Design Information Sign must contain: Location of the design area or areas Discharge densities over the design area or areas Required flow and residual pressure demand at the base of the riser Occupancy classification or commodity classification and maximum permitted storage height and configuration Hose stream allowance included in addition to the sprinkler demand The name of the installing contractor			
Inspectors test valve Ensure inspectors test valve is accessible without ladders etc. and discharges outside. Test valve must be smoothbore, corrosive resistant orifice same diameter as smallest sprinkler head. 1 inch in diameter			
Sprinkler heads Verify that the required spare sprinkler heads and correct head wrench for each sprinkler head type in cabinet in riser room as specified in plan review. (< 300 heads 6 are required; 300-1000 heads 12 are required) Walk through facility and verify placement of sprinkler heads and spacing and installation of hangars. If coverage is not 100% throughout facility, verify against approved drawings. Ensure paint or other materials are removed from heads. Ensure proper temperature rating for hazard classification			

PIV Must be accessible and installed not less than 40 ft. (12 m) from the building. (Bldgs. <40 ft. see NFPA 24 for further) Top of post must be at least 32 to 40 inches above final grade Locked with DPW lock or Tamper Switch Installed			
Riser Room Ensure access utilizing mechanical room key. NOTE: AAFES and MEDCOM have separate keys Must be equipped with lighting & heat source.			
System Testing Hydrostatic of piping Verify the hydrostatic test has been completed prior to inspection by contractor per standards and is documented on the contractors test certificate. (NFPA 13 - 200 PSI for 2 hours) Piping between the fire department connection and the check valve in the inlet pipe shall be tested hydrostatically in the same manner as the balance of the system. *DRY PIPE*: An air pressure leakage test at 40 psi shall be conducted for 24 hours. Any leakage that results in a loss of pressure during a continuous 24-hour period shall be corrected.			
Main drain test (DPW) - Verify main drain valve operation. - Conduct main drain test IAW NFPA 25 - Main drain test is conducted in the following manner: - Record the pressure indicated by the supply water gauge - Close the alarm control valve on alarm valves - Fully open the main drain valve - After the flow has stabilized, record the residual (flowing) pressure indicated by the water supply gauge - Close the main drain valve slowly - Record the time taken for the supply water pressure to return to the original static (non-flowing) pressure - Open the alarm control valve **Static pressure_____ Residual pressure_____**			
Quick Opening Device (Dry Pipe) If system volume is 500 gallons or greater than a quick opening device is required. If above 750 gallons multiple devices are required.			
Flow switch test Verify water flow alarm operation using the inspector's test valve. The flow switch must transmit an alarm within 30 seconds (NFPA 13 and 72), and the electric bell must activate within 5 minutes (NFPA 25). *DRY PIPE*: Verify test of the dry pipe valve using the inspector's test valve. Times shall be recorded on the contractor's test certificate. (If time is longer than 60 seconds, a quick opening device is required.)			
Electric Water Flow Bell Water flow detecting devices including the associated alarm circuits shall be flow tested through the inspector's test connection and shall result in an audible alarm on the premises within 5 minutes after such flow begins and until flow stops.			

Supervisory alarm test Test supervisory devices to ensure alarm (tamper switch) activates. If no supervisory device is in place, valves must be chained and locked (must be a DPW type key)			
Documentation			
Certification letter verifying operation of the backflow prevention assemblies.			
DPW/USACE verify all literature and instructions of the manufacturer describing proper operation and maintenance of all equipment and devices installed.			
DPW/USACE receive a copy of the Contractor's Material and Test Certificate and ensure all information is recorded. This should be signed by the sprinkler contractor and the DPW representative. Documentation to be turned into DPW upon completion of the project.			

Appendix D

SECRETARY OF THE ARMY
WASHINGTON

25 JUN 2015

MEMORANDUM FOR ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT

SUBJECT: Delegation of Army Authority Having Jurisdiction under National Fire Protection Association Standards

1. References:

a. Department of Defense (DoD) Instruction 6055.06, (DoD Fire and Emergency Services (F&ES) Program), 21 December 2006.

b. Army Regulation 420-1 (Army Facilities Management, Chapter 25, Fire and Emergency Services), 12 February 2008, Rapid Action Revision, 24 August 2012.

c. National Fire Protection Association Standard 1710 (Standard for the Organization and Deployment of Fire suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments), 2010 edition.

2. Reference 1a requires the Army F&ES program to comply with the national consensus standards promulgated by the National Fire Protection Association (NFPA). The Army has implemented reference 1a pursuant to reference 1b, which explicitly adopts the relevant NFPA standards.

3. The Army must develop and maintain a written statement or policy that establishes the F&ES organization, the scope of services and the level of service objectives described in reference 1a, enclosure 3. Reference 1c requires the Authority Having Jurisdiction (AHJ) to provide the service delivery performance objectives. Reference 1c defines the AHJ as "an organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, and installation, or a procedure."

4. I hereby delegate to the Assistant Chief of Staff for Installation Management (ACSIM) the authority to establish and maintain the Army F&ES program in conformance with all of the requirements and procedures in reference 1a, and hereby designate the ACSIM as the AHJ for the Army as the individual responsible for approving equipment, materials and procedures for Army fire departments. Delegated responsibilities include development, approval and execution oversight of policy governing the F&ES program; interpretation of F&ES policy and governing standards and regulations; development and approval of appropriate scopes of service and

SUBJECT: Delegation of Army Authority Having Jurisdiction under National Fire Protection Association Standards

service delivery performance objectives, including minimum requirements, determining the necessary level of funding, the necessary level of personnel and resources, including vehicles and facilities, among other AHJ responsibilities. This authority may not be further delegated.

5. I further delegate to the ACSIM the authority to approve deviations from the minimum level of service objectives and other minimum requirements. The ACSIM must develop Army-specific risk management procedures to address deviations from the requirements found in reference 1a. This authority may not be further delegated.

6. This delegation of authority is effective immediately and will remain in effect for three years from the date of signature. I retain the authority to cancel or withdraw the authorities delegated herein.

John M. McHugh

DISTRIBUTION:
Principal Officials of Headquarters, Department of the Army
Commander
- U.S. Army Forces Command
- U.S. Army Training and Doctrine Command
- U.S. Army Materiel Command
- U.S. Army Pacific
- U.S. Army Europe
- U.S. Army Central
- U.S. Army North
- U.S. Army South
- U.S. Army Africa/Southern European Task Force
- U.S. Army Special Operations Command
- Military Surface Deployment and Distribution Command
- U.S. Army Space and Missile Defense Command/Army Strategic Command
- U.S. Army Medical Command
- U.S. Army Intelligence and Security Command
- U.S. Army Criminal Investigation Command
- U.S. Army Corps of Engineers
- U.S. Army Military District of Washington
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Superintendent, United States Military Academy
(CONT)

SUBJECT: Delegation of Army Authority Having Jurisdiction under National Fire Protection Association Standards

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Appendix E
Audible Fire Alarm Notification

GENERAL ANNOUNCEMENTS AND PAGING

AUDIBLE in the following sequence:

Pre-announcement Sound – Ding-Dong – Percussive pairs of 700 and 570 Hz tones each damped to zero (one cycle) Announcement – spoken message.

VISIBLE none

FIRE EMERGENCY / FIRE ALARM

AUDIBLE [Audible must sound for not less than 180 seconds (NFPA 72)] in the following sequence:

Alert Sound – NFPA Temporal 3 (T-3) - 422-775Hz upward sweep over 850 ms for three- pulses each separated by 1 second followed by a 1.5 second delay (repeat 2 cycles)

Announcement: Voice – Tom or Donna (repeat 2 cycles): VISIBLE [Visible must flash/operate until system is reset]:

White Strobe or other listed white appliance (Clear Lens White Flash).

Textual message signs (if provided).

CARBON MONOXIDE DETECTION {GENERIC} MESSAGES

AUDIBLE [Audible must sound for not less than 180 seconds (NFPA 72)] in the following sequence:

Alert Sound – Temporal 4 (T-4) pattern tone - 520Hz over 850 ms for four-pulses each separated by 1 second followed by a 1.5 second delay (repeat 2 cycles)

Announcement: Voice – Tom or Donna (repeat 2 cycles): VISIBLE [Visible must flash/operate until system is reset]:

White Strobe or other listed white appliance (Clear Lens White Flash).

Textual message signs (if provided).

CHEMICAL/BOMB/INTRUDER

AUDIBLE [Audible must sound for not less than 180 seconds] in the following sequence: Alert Sound – Siren - 600-1250 Hz up and down sweep in 4 seconds; 1.5 second delay (repeat 2 cycles)

Announcement: Voice – Tom or Donna (repeat 2 cycles): VISIBLE [Visible must flash/operate until system is reset]:

White Strobe or other listed white appliance (Clear Lens White Flash).

Textual message signs (if provided).

SECONDARY EGRESS

AUDIBLE [Audible must sound for not less than 180 seconds] in the following sequence: Alert Sound – Hi-Lo - 780 to 600 Hz alternately, 0.52 each (repeat 2 cycles) Announcement: Voice – Tom or Donna (repeat 2 cycles):
VISIBLE [Visible must flash/operate until system is reset]: White Strobe or other listed white appliance (Clear Lens White Flash).

Textual message signs (if provided).

WEATHER

AUDIBLE - [Audible must continue to sound for not less than 180 seconds] in the following sequence:
Alert Sound – NOAA Standard alert tone - 1050 Hz (8 seconds) Announcement: Voice – Tom or Donna (repeat 2 cycles): VISIBLE [Visible must flash/operate until system is reset]:
White Strobe or other listed white appliance (Clear Lens White Flash).
Textual message signs (if provided).

ALL CLEAR RETURN TO NORMAL OPERATIONS MESSAGES

AUDIBLE in the following sequence:
Pre-announcement Sound – Ding-Dong – Percussive pairs of 700 and 570 Hz tones each damped to zero (one cycle)
Announcement: Voice – Tom or Donna (repeat two cycles) VISIBLE none.