



DEPARTMENT OF THE NAVY

NAVAL STATION MAYPORT

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NAVSTAMYPINST 11320.4N  
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NAVAL STATION MAYPORT INSTRUCTION 11320.4N

From: Commanding Officer, Naval Station Mayport

Subj: FIRST COAST NAVY FIRE AND EMERGENCY SERVICES FIRE  
PREVENTION PROGRAM

Ref: (a) OPNAVINST 11320.23(Series)  
(b) National Fire Protection Association (NFPA) Codes and  
Standards  
(c) UFC-3-600-01 Fire Protection Engineering for  
Facilities  
(d) UFC 3-601-02 Operations and Maintenance-Inspection,  
Testing, And Maintenance of Fire Protection Systems

1. Purpose. To issue and update the First Coast Navy Fire and  
Emergency Services Fire Prevention and Protection Program in  
accordance with the requirements of references (a) through (d).


2. Cancellation. NAVSTAMYPINST 11320.4M

3. Background. Reference (a) reinforces policy and reassigns  
responsibility related to fire prevention and protection at  
naval activities. Reference (b) is general guidance relating to  
fire protection and prevention. Reference (c) provides design  
criteria for fire protection engineering applicable to naval  
facilities ashore. Reference (d) establishes standard practices  
for inspection, testing and maintenance of fire protection  
systems at Department of Defense installations.

4. Scope. This instruction is applicable to all personnel  
assigned to, residing on or visiting Naval Station Mayport.  
Department heads, special assistants, commanders, commanding  
officers, officers-in-charge, fleet units, activities directors,  
and resident commands, units, and activities are required to  
implement and give widest dissemination of the information  
contained in this instruction.

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5. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per SECNAV Manual 5210.1 (series).



W. R. McCALL  
CAPT USN

Distribution: (NAVSTAMYPTINST 5605.1Y)  
List I, II and III

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CHAPTER 1

PURPOSE

1. OBJECTIVE. To set forth basic policies concerning the overall fire protection and organization of First Coast Navy Fire and Emergency Services Department per current Navy Department and other policies as outlined in existing instructions.
2. FIRE DEPARTMENT ORGANIZATION. The fire department shall be organized in conformity with existing instructions and as approved by the Commanding Officer. It shall be under the technical supervision of the Fire Chief and the military command, and non-technical direction of the Commanding Officer.
3. APPLICABILITY. The fire regulations apply equally to all activities and commands located on the installation, whether or not they are responsible to the Commanding Officer in other respects.
4. RESPONSIBILITY. It shall be the responsibility of all personnel attached to, based on, or otherwise using any facilities of this installation to familiarize themselves with and comply with these regulations. These regulations shall be uniform in their application to all personnel, civilian and military.
5. EFFECTIVE DATE. These regulations are effective upon issue by the Commanding Officer. Nothing in these regulations shall be construed as being in conflict with Navy regulations or other instructions from higher authority.
6. CHANGES. Changes to these regulations shall be submitted to the Commanding Officer for approval.

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CHAPTER 2  
DUTIES AND RESPONSIBILITIES

1. FIRE CHIEF

a. Must be designated in writing and the senior administrative, operational and technical authority on fire prevention and fire protection matters within the command, and provide necessary direction to the department.

b. Perform duties, which include structural, shipboard, aircraft and other special types of firefighting; rescue organization and operation; training; equipment knowledge and employment; and the proper use of associated manpower, money and materials.

c. Have full responsibility for the efficiency, operational readiness and performance of the department.

d. Organize the department into a sufficient number of fire companies to provide maximum fire protection for the installation.

e. Responsible for assessment and oversight of shipboard training programs to ensure firefighters are trained to support shipboard emergency response plans on vessels in port and in industrial environments.

f. Advise the Commanding Officer of fire protection and organization and operations in connection with disaster preparedness planning.

g. Develop or assist in developing firefighting and rescue training programs for all personnel assigned to the fire department, aircraft crash/rescue crews, disaster preparedness fire element teams, and other special firefighting units.

h. Determine and recommend for procurement the quantity and type of equipment required for structural, shipboard or aircraft crash/rescue emergencies.

i. Advise the Commanding Officer of the personnel manning necessary to safely operate essential fire and crash/rescue equipment.



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j. Prepare fire prevention and protection regulations and fire bills as required by references (a) and (c) and ensure all hands are thoroughly and frequently indoctrinated in these requirements.

k. Provide management and technical assistance in the development of operating plans, working schedules and duties for firefighting and aircraft crash/rescue teams.

l. Review and modify, as necessary, mutual aid agreements with local communities. Authorize department equipment and personnel to be used for off installation emergencies within reasonable limits as part of these agreements.

m. Must be in charge of firefighting operations and be responsible for the disposition and employment of personnel and equipment. The Fire Chief may call upon any activity for personnel or equipment needed for firefighting or eliminating fire hazards.

n. Ensure a procedure is in place for notification by the fire department communications operator of each fire reported on the Installation and of all major fires in the vicinity.

o. Immediately notify the operations officer and the tower when aircraft firefighting capability is degraded due to response to a structural fire.

## 2. ASSISTANT CHIEF FOR FIRE PROTECTION AND PREVENTION

a. Fire prevention inspections of all buildings, structures, spaces and grounds within the Installation.

b. Proper placement, distribution and repair of all fire extinguishing equipment.

c. Oversee the inspection and testing of fire hydrants.

d. Oversee the inspection of sprinkler and other automatic fire extinguishing or fire detecting equipment.

e. Inspection of exit doors, testing of evacuation alarms and conducting emergency and evacuation fire drills.

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f. Issuance of fire prevention notices to correct existing hazards.

g. Granting permits for and supervision of hazardous operations. Ensuring qualified personnel with necessary fire extinguishing equipment are on scene.

h. Fire prevention training of military and civilian personnel.

i. Posting special occasion standby watches at public assemblies when necessary.

3. SAFETY OFFICER. The Fire Chief is responsible for the administration of an effective Fire Protection Program. The safety officer is responsible for the administration of an effective accident prevention program. The functions of both positions are clearly defined; however, there are often conditions where common interests might exist.

4. COMMAND DUTY OFFICER (CDO). In the event of a major incident such as a second alarm or greater, or a related disaster, the CDO will report to the fire department command post. Until relieved by higher authority, the CDO shall assist the senior fire officer at the command post, dispatch such personnel and equipment as may be required in accordance with the instruction of the senior fire officer. The CDO shall ensure that the security guard at the main gate is informed as to what fire companies have been called from outside to assist and that they are directed to the scene upon arrival.

## 5. PERSONNEL AND ORGANIZATION

a. Occupants of buildings shall familiarize themselves with the location of the nearest fire alarm box, pull station, emergency number, location of fire extinguisher(s), and proper method of using them. Building fire wardens will be responsible for the posting of fire bills and where necessary, the posting of emergency evacuation plans.

b. Unit commanders and department heads shall designate, via memorandum to the fire prevention office, unit building manager, primary fire warden and alternate fire warden for the buildings under their control. The designations shall be kept current.

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The memorandum shall contain the following information:

(1) Name, rank/rate/grade, email address, and UIC of the unit building manager, primary and alternate fire wardens.

(2) Telephone number, office code and proper work address of the unit building manager, primary and alternate fire wardens.

(3) Building numbers and outside areas assigned for inspection.

c. Building Fire Wardens will:

(1) Conduct a weekly inspection in accordance with the checklist provided on the fire warden report.

(2) Conduct weekly visual inspections of each piece of portable fire extinguishers assigned to or installed in each building of responsibility. Date and sign the fire extinguisher log monthly. Discrepancies found on fire extinguishers shall be reported immediately to the fire prevention division.

(3) Be alert and familiar with common everyday hazards, and initiate corrective actions through work requests, or trouble calls, to correct hazards that cannot be corrected by building personnel. Report immediately to the fire prevention division any discrepancies creating an immediate hazard to life or property.

(4) Schedule training as necessary to ensure personnel are familiar with fire reporting and evacuation procedures and the proper use and operation of fire extinguishers.

(5) Escort fire inspectors during on-site inspections, fire drills, and visits. Have all necessary keys and codes for secured areas to include mechanical and electrical rooms.

(6) Complete the building fire warden report listing discrepancies noted and corrections initiated. Email the completed report no later than the fifteenth of the following month, as a Microsoft Word document with the ".doc" extension. The building number, month, and year of the report shall be in the file name of the report document.

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CHAPTER 3  
FIRE ALARMS AND SIGNALS

1. FIRE REPORTING. It is the responsibility of all personnel assigned, attached, or visiting the installation to report all fires, regardless of size or whether extinguished, to the fire department immediately. A person discovering a fire shall activate the alarm system, alert all occupants, report fire to the fire department, and position themselves outside the building to assist the fire department in finding the exact location of the fire.

2. INITIATING AN ALARM. Fire alarms are transmitted from alarm boxes, pull stations and by telephone.

a. To operate a fire alarm box or pull station:

(1) Follow the instructions on the front of the box or pull station. In most cases a lever will need to be pulled in a downward position.

(2) Position yourself in front of the facility to direct emergency personnel to the exact location of the fire or emergency.

b. To report a fire or any emergency by telephone:

(1) Dial 9-1-1. Be prepared to provide the following:

(a) Building number, or resident address, and occupancy.

(b) What the emergency is, such as: fire (building, aircraft, vehicle, grass, oil, etc.), smell of smoke, medical assistance, fuel spill, gas leak, etc.

(c) Provide the exact location of the emergency in or around the building.

(d) Name, rank/rate, and telephone number..

c. Alert or delegate someone to alert other personnel by sounding "FIRE, FIRE, FIRE" verbally or by other means.

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d. Upon activation of the fire alarm system, or hearing "FIRE, FIRE, FIRE" it is the responsibility of each occupant to immediately evacuate the building.

e. Upon termination of the emergency, person discovering the fire shall report to the senior fire official to provide accurate information regarding conditions under which the discovery was made.

f. All buildings shall be evacuated any time a fire alarm system is activated or there is a cause to believe fire is present. This is necessary to allow the fire department time to locate and extinguish the fire and determine if the building is safe for occupants to return.

g. Upon hearing fire apparatus sirens, vehicles will stop and yield the right of way to assure unrestricted travel of fire apparatus and other emergency equipment.

3. BOMB THREAT. In the event of a bomb threat within a building, personnel will immediately proceed to the nearest exit and call the fire department to report that a bomb threat has been received. DO NOT USE THE BUILDING ALARM SYSTEM FOR NOTIFICATION.

4. FALSE ALARMS. All false fire alarms shall be immediately investigated to determine the cause. No person shall deliberately or maliciously turn in an alarm for a fire or emergency when, in fact, that person knows that no fire or emergency exists.

5. FIRE BILL. Copies of the fire bill shall be conspicuously posted in occupied buildings. Suggested locations include each end of the passageway, all duty offices and in those locations from which a fire may reasonably be expected to be reported. Contact the fire prevention for an electronic copy.

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CHAPTER 4  
FIRE EQUIPMENT

1. ABUSE OR RELOCATION

a. Fire protection equipment shall not be put out of service or relocated without prior approval of the senior fire officer.

b. No person shall tamper with any fire protection equipment or create conditions which adversely affect the operation or efficiency of such equipment.

c. The inspection, testing, maintenance and repair of fire protection systems and equipment shall be performed by personnel specifically certified for the task. These functions shall occur only with prior notification to the command and building occupants. A test or maintenance plan will be coordinated with the fire department. All systems shall be tested and maintained in accordance with DOD and national standards.

2. ACCESS AISLES AND PASSAGES

a. Access aisles to fire alarm pull stations, fire extinguishers, fire escapes, sprinkler systems valves, electric, gas, water and steam controls shall be kept clear at all times. These aisles shall be at least 36 inches wide and easily identified by posted signs. Storage of any type in or around these areas is strictly prohibited.

b. No material or vehicle shall be allowed to obstruct access to firefighting equipment.

c. Access to and clearance around sprinkler control valves, fire department connections and risers shall be maintained at all times. Protective enclosures shall be constructed by the activity when deemed necessary by the Fire Chief.

d. A 50-foot clearance in front of hangar doors shall be maintained for the emergency evacuation of aircraft and the emergency response of firefighting apparatus.

e. Materials or equipment left on ramps or loading platforms, at any time, shall not block access to any window, door, fire alarm box, sprinkler connection, etc.

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3. FIRE HYDRANTS

a. No vehicles or other objects shall be left standing within 20 feet of any fire hydrant. Adequate clearance, not less than 15 feet, shall be provided for all sprinkler control valves, fire department connections, or to any building or structure exit.

b. Fire hydrants shall not be obscured by shrubbery, trees or other types of obstructions.

c. Connections of any type shall not be made to fire hydrants, nor shall fire hydrants be operated by other than the fire department or Naval Facilities Engineering Command (NAVFAC) personnel, unless approved by the Fire Chief.

4. WATER DISTRIBUTION SYSTEMS

a. NAVFAC is responsible for maintenance of all water distribution systems on the installation and in off station housing.

b. Fire protection water supply lines and outlets shall not be altered or have fittings attached without the approval of the Fire Chief.

c. The fire department must be notified prior to the operation (opening and closing) of any valve controlling fire protection water supply lines.

5. SPRINKLER SYSTEMS

a. Sprinkler control valves shall be locked open. If sprinkler heads operate because of fire, the control valve shall not be closed until directed by the senior fire officer at the fire. If a sprinkler system activates for any reason other than fire, the control valve shall be closed at once, the drain valve opened.

b. No material shall be hung from or interfere with sprinkler pipes, heads and appurtenances. Sprinkler heads shall not be painted.

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c. No sprinkler system shall be closed for repairs without first notifying the fire department.

d. Defective or leaking sprinkler systems shall be immediately reported to the fire department.

e. NAVFAC is responsible for all adjustments and repairs to sprinkler systems. Necessary work on sprinklers will be conducted on an emergency basis in order to limit impairment of protection to the absolute minimum period of time. Where it is essential that sprinkler protection be impaired overnight, emergency fire protection measures shall be used. Adjustment, tampering, disassembly or other modification to sprinkler systems, by any unauthorized personnel is prohibited.

f. Sprinkler head clearance shall be a minimum of 18 inches to material stacked up to 15 feet high. Large, closely packed piles of combustible material stacked over 15 feet high require an increased minimum clearance of 36 inches.

g. Performance of sprinkler systems shall not be impeded by improper storage, new partitions, installation of drop ceilings, etc.

h. Fire suppression systems shall be tested only by and qualified NAVFAC contractor and fire department personnel.

i. Paints shall not be allowed to come in contact with sprinkler heads, fusible links, or other heat activating devices.

## 6. FIRE ALARM SYSTEMS

a. No person shall have access to fire alarm boxes or fire alarm panels except fire department and fire alarm maintenance personnel.

b. The painting of any fire alarm system, (i.e., manual pull stations, smoke detectors, fire suppression systems, etc.) is strictly prohibited, unless the Fire Prevention Division has approved a painting contract.



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7. FIRE HOSE

a. A fire hose will not be used for other than firefighting purposes without approval of the Fire Chief.

b. No vehicle shall be driven over a fire hose unless authorized to do so by a fire officer.

8. FIRE EXTINGUISHERS

a. Any person having discharged a fire extinguisher shall report the fact immediately to the fire department, and state the purpose for which it was used. Fire extinguishers will be taken to the fire station for immediate exchange along with a memo signed by the department supervisor stating why the fire extinguisher was discharged.

b. No person shall render any portable or fixed fire extinguishing system or device or any fire warning system inoperative or inaccessible except as necessary during emergencies, maintenance, drills, or prescribed tests.

c. Fire extinguishers shall not be removed from their assigned locations except for firefighting.

d. Any person noting a damaged fire extinguisher will report such to the designated fire warden, or notify fire prevention immediately.

e. Fire protection equipment shall be kept clearly visible, unobstructed and maintained in designated locations.

f. All first-aid firefighting appliances (flight line fire extinguishers) for protection of aircraft on flight lines will be checked daily by the activity using them. All damaged, used or unfilled bottles shall be turned in by the using activity to the crash fire station prior immediately for exchange or repair.

9. FIRE TRUCKS AND EQUIPMENT

a. No person shall ride on, operate or use fire equipment unless specifically authorized by Incident Command.

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b. When responding to an alarm, fire apparatuses shall be under the control of the driver at all times, and shall be driven at such speeds as may be safe according to road conditions. Fire apparatus drivers will observe all traffic regulations when returning from an alarm. When responding off installation, fire apparatus drivers shall proceed at a safe speed according to road conditions and conform to Florida State Laws regarding emergency vehicles. On installation, drivers will not exceed an unsafe speed.

c. All traffic shall immediately yield to emergency vehicles in accordance with Florida State Law.

d. Seat belt use is required for all persons riding in or on fire equipment.

e. Individuals and their vehicles reporting to the scene of a fire, for reasons other than firefighting and rescue, are to remain well clear of the area of the fire unless their services are requested by the Senior Fire Officer.

f. When requested by responsible authorities, the apparatuses and personnel may be used to assist in the fighting of fires off the installation. Authority for such use must be given in each case by the Fire Chief or, in his absence, the on-duty assistant Fire Chief. Fire department resources may be utilized if needed to assist in local disasters as provided with the terms of the "Mutual Aid Agreement" with the municipal organizations.

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CHAPTER 5  
INSPECTIONS

1. GENERAL

a. Fire department personnel with proper identification shall have access to all structures and areas. Security area escorts will be provided as necessary.

b. All buildings periodically or continually locked shall have suitable placards at the main entrance stating location, phone number and name of person to contact for entry.

c. Fire Prevention Inspectors shall perform inspections of all structures and outside storage areas and spaces to eliminate fire hazards and ensure hazardous operations are carried out in a safe manner.

(1) Periodically: wharfs, piers, major construction, renovation projects, and extra hazardous operations.

(2) Monthly: day care and youth activity centers.

(3) Annually: all other buildings and facilities on government properties.

d. Inspection of military housing units shall occur upon request.

e. Deficient or inadequate equipment, unsafe acts and/or conditions or other matters in violation of this instruction shall be reported via an Enterprise Safety Applications Management System (ESAMS) Inspection and Deficiency Report to the Commanding Officer. The fire department shall ensure necessary action is taken to correct deficiencies.

f. All buildings, including on and off installation housing, shall have the building number on the street side of the building exterior.

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2. BUILDING CONSTRUCTION PLANNING AND MODIFICATIONS

a. The planning, design, construction, maintenance, alterations, modifications and/or repairs of all buildings and structures shall adhere to the engineering policy and criteria outlined in references (b), (c), and (d).

b. All construction and alteration plans and projects, including self-help efforts, and installation of temporary structures (mobile field offices, trailers, portable, metal, etc.) shall be routed through the fire department for review and comment.

3. FIRE HAZARDS

a. Activities controlling or occupying government buildings or areas shall exercise vigilance in guarding against the creation of fire hazards and shall promptly report to the fire department:

(1) Any hazardous condition which cannot be corrected immediately.

(2) Any change in assignment of occupancy of the building.

(3) The placing of any building in an unoccupied status.

(4) The reopening of any building previously unoccupied.

b. When inspection by the fire department reveals existing fire hazards which cannot be corrected immediately on the scene or which often reoccur, the activity will receive an email notification of an ESAMS Inspection and Deficiency Report. The deficiency report states what the hazard is, and in most cases, what corrective measures should be taken.

4. FIRE DRILLS. Department and division heads shall ensure that fire evacuation drills are conducted annually in structures that personnel are billeted or working.

a. Advance scheduling of fire drills will be coordinated with the Fire Prevention Division.

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b. Fire department personnel will conduct fire drills and the activity fire wardens will participate as observers.

c. Occupants of military family housing units are required to know what actions to take in case of fire. Occupants are encouraged to plan and practice home fire drills, perform periodic tests of installed smoke and carbon monoxide alarms, and have appropriate home fire extinguishers available.

5. AFTER HOURS INSPECTION. Immediately prior to the close of all clubs and recreational areas, the person responsible for securing the premises will:

- a. Empty all ashtrays.
- b. Place all soiled linen in covered metal containers.
- c. Empty all trash cans into metal containers outside.
- d. Clean floors of all trash.
- e. Secure all appliances and grills.
- f. Check under and behind drapes, overstuffed chairs and sofa cushions and other areas to ensure a smoldering fire from a cigarette or other smoking material is not present.
- g. Conduct an inspection to confirm that closing procedures have been completed and the building is secured.

6. SECURING A BUILDING

a. Securing at the End of the Day

(1) All doors (including fire doors) and windows shall be properly secured at the close of working hours unless otherwise authorized in writing by the Commanding Officer or his/her designated representative.

(2) All heating and cooling devices not required to be in operation during the night shall be secured at the close of business. Portable heating devices shall be attended while in use. The use of heating devices referred to as "salamanders" are prohibited.

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(3) Swabs, cleaning gear and other materials subject to spontaneous ignition shall be kept outside of buildings or stored in metal containers with metal covers and be marked with proper identifications.

(4) All paint, brushes, drop cloths, rags, etc., must be removed from the building at the close of business hours. If these materials are to be left on a job, they shall be placed in an approved flammable storage locker.

(5) No doors shall be permanently secured without advance approval of the fire department. Those doors shall be identified by a sign on both sides indicating fire department approval. Exit doors shall not be secured in such a manner as to prevent their use.

b. Vacant Buildings

(1) All trash shall be removed from the building. Floors shall be swept clean and furniture neatly stacked.

(2) All cleaning gear shall be removed from the premises and gear lockers or closets thoroughly cleaned and doors thereto left in an open position.

(3) All points of entry shall be locked and secured.

(4) Vacant buildings shall be posted prohibiting entry, except on order of the Commanding Officer or his authorized representatives. The point of contact name and telephone number should entry be required shall also be posted.

(5) Electrical power to the building shall be disconnected at the main control pane. Gas mains shall be disconnected and capped.

c. Unoccupied Spaces in Buildings

(1) Unoccupied spaces shall be posted prohibiting entry, except on order of the Commanding Officer or his authorized representatives. The point of contact name and telephone number should entry be required shall also be posted.

(2) All trash shall be removed from unoccupied spaces.

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7. HOUSEKEEPING

a. General

(1) All wiping towels and rags shall be kept in approved metal containers with self-closing lids. Dirty rags shall be removed as often as required.

(2) Work, storage spaces, new construction and repair areas shall be policed daily to reduce fire hazards and accumulations of combustible debris.

(3) Rubbish and scrap metals shall be disposed of in properly identified receptacles or bins. All rubbish shall be cleaned from buildings at the end of the work day.

(4) Wastebaskets shall be of metal or other non-combustible material.

(5) Dumpsters and other trash disposal units shall be placed at a minimum of 20 feet from buildings and storage areas. Door and hatches of units shall be kept closed.

(6) Accumulation of trash and debris in lockers, closets and storage spaces shall be avoided.

b. Personnel Services Rooms

(1) Covered metal receptacles with self-closing lids shall be provided in all heads and other areas where paper towels or disposable paper cups are used.

(2) Clothing lockers, adequately ventilated, shall be of metal and maintained in a clean and orderly condition. Materials shall not be stored on top of or underneath lockers. Working clothes kept in lockers shall be aired and cleaned regularly. Flammable liquids, chemicals, paints, paint soaked rags and similar materials shall not be kept in clothes lockers.

(3) Combustible materials shall not be placed on radiators, heaters or steam pipes.

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c. Attics and Concealed Spaces

(1) Attics and concealed spaces shall be kept clean and shall not be used for storage.

(2) Scuttle holes and other openings connected to attics or concealed spaces shall be fitted with doors equivalent in fire resistance to ceiling construction and normally shall be kept closed.

(3) Hatches, trap doors, communication openings and accesses to confined spaces shall not be used for ventilating purposes but shall be kept closed when not in use.

(4) Ceiling tiles shall be kept in place at all times.

(5) Roof access by ladders or stairs shall be identified with visible placards.

d. Vehicles

(1) Motorcycles and similar vehicles shall not be parked, stored or overhauled in barracks or similar residences.

(2) Gasoline and electric powered vehicles or material handling equipment shall not be parked or stored overnight in warehouses or sheds, unless the building is of fire resistant construction, having sprinkler fire suppression system, and assigned spaces are well away from combustible materials.

(3) Electric powered vehicles may be left in buildings provided they are located at a safe distance from combustible materials and the electric plug is disconnected.

8. SAFETY CONTAINERS

a. Metal containers with self-closing covers shall be used for storing of supplies, clean rags, waste, packing materials (such as excelsior, shredded paper) and other combustible materials.



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b. All used waste oil, paint, chemical soaked rags and other hazardous waste materials shall be deposited in properly identified, self-closing metal containers. The metal covers shall be maintained in a closed position and never wedged or blocked open. Such containers shall be emptied and the contents shall be removed from the building as required during working hours, at the end of each work shift, and prior to securing of the building.

c. Storage of materials in exit corridors, stairwell enclosures and under stairs (inside or outside) is prohibited.

d. Storage of materials in electrical, mechanical, air handler and telecommunication equipment rooms is strictly prohibited.

#### 9. EXHAUST SYSTEMS

a. Exhaust systems and duct work shall be kept free of grease, paint residue, combustible dust, etc. Grease filters on range hoods shall be cleaned daily, utilizing steam or non-flammable liquid.

b. Hood systems used in spaces for preparing and serving meals shall be cleaned by outside contractors equipped and trained to do such work at least every six months or more often as needed.

c. Contractors shall contact the fire department prior to and after cleaning each system. The fire department shall inspect and make note of findings in the installation log.

d. Exhaust hoses on back of dryers shall be cleaned as needed.

#### 10. DECORATIONS

a. Natural cut Christmas trees are not permitted in assembly, BEQ/BOQ, hotels, educational, or detention facilities.

b. All decorations, lights and artificial trees in assembly occupancies shall be fire resistive or flame retardant and are required to be approved by fire prevention before installation.

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c. The location of Christmas trees or any other temporary decorations shall not obstruct corridors, exit ways, or other means of egress. Approval of Christmas tree types and locations is required to be approved by fire prevention.

d. Only Underwriters Laboratories Inc. listed electric lights and wiring decorations shall be permitted or used on Christmas trees and other similar decorations. Electric lights shall not be placed on metal trees.

e. The use of candles or other similar devices is prohibited, except during religious ceremonies held at places of worship (i.e., Chapel).

f. The use of straw, hay, or other combustible material is prohibited in assembly, business, mercantile, detention/correctional, BEQ/BOQ, hotels, and educational facilities

11. CLEANING PRECAUTIONS. Gasoline and other volatile flammable liquids having a flash point below 100 degrees Fahrenheit shall not be used for cleaning purposes. No flammable cleaner shall be used without proper safeguards.

12. COOKING AND COFFEE MESSSES

a. Coffee messes shall not be located in high hazard or industrial work areas.

b. Toaster ovens, electric skillets, slow cookers, etc. shall be used in kitchen-equipped areas only.

c. Coffee pots shall be placed in an open area on a noncombustible surface at a reasonably safe distance from combustible materials. Closets, lockers or out of the way places are not suitable.

(1) Coffee pot(s) will be UL approved.

(2) All coffee mess appliances operating on circuits of 115 volts or more shall be grounded.

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(3) Ensure all coffee mess appliances are secured and unplugged when not in use.

(4) Coffee messes will be checked periodically by fire inspectors.

13. FIRE ESCAPES AND EXITS. Department heads and tenant commands shall ensure fire escapes and exits are maintained and fully functional as set forth below:

a. Fire escapes, exits, emergency doors and stairways shall be accessible and free from encumbrances.

b. Exit signs indicating direction of travel to exits shall be visible from any part of the floor area. Illuminated exit signs shall be inspected daily by the facility manager or their alternate to ensure proper working condition.

c. Exit doors shall open in the direction of travel when leaving the building. Exit door hardware shall be in good operating condition at all times. Any broken or damaged parts require a service call for repair immediately. Where door closures are required, they shall be operational.

d. Exit doors shall not be locked while the facility is occupied. Restrictive hardware such as hasps, padlocks, throw-bolts, crossbars, etc., shall not be installed on any emergency exit door.

e. Emergency exit doors requiring panic bolts shall be equipped with proper type panic hardware in good operating condition.

f. Emergency exits shall be indicated by properly illuminated signs over exit doors and passageways. Curtains or draperies shall not be placed over exit doors or otherwise located to conceal or obscure any exit.

g. Locking devices on doors and exits of correctional and detention facilities shall conform to the requirements set forth in reference I.

h. Adequate fire lanes shall be maintained around the outside of all buildings and entrance ways.

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i. Inside and outside fire lanes shall be maintained by department or tenant activity, as approved by the Fire Chief or the assistant chief of the fire prevention division.

j. Fire lanes shall be properly identified with red or yellow paint.

k. Fire lanes shall not be changed except by request via the Fire Chief and the Chain of Command.

l. Exit doors shall not be secured in any way which prevents the use of the exit.

m. Hallways, passageways, etc., will be kept free from encumbrances with the exception of portable extinguishers.

#### 14. PUBLIC ASSEMBLY BUILDINGS

a. The occupancy load in numbers shall be posted near the front entrance of public assembly buildings.

b. Facility Managers of public assembly employees shall establish and maintain a certification program to ensure that employees are trained and understand their fire prevention responsibilities within the work environment. New employees shall be trained immediately.

c. Prior to opening, a daily inspection will be performed by the manager or responsible representative of each public assembly building such as clubs, gymnasiums, halls and auditoriums. This inspection should eliminate any unsafe conditions such as exit signs on fire exit doors not lighted or secured, passageways blocked, electrical circuits overloaded by entertainment groups, etc. Buildings are to be monitored during hours of operation to ensure that changing conditions do not cause unsafe operations.

d. Immediately at close of business at each public assembly building, the designated closing representative will perform an inspection of the building, take immediate action on any discrepancies noted. This requirement shall not be delegated to janitorial personnel.

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e. Deep fat fryers shall be equipped with a separate high limit control in addition to the adjustable operating control (thermostat) to shut off fuel or energy when the fat temperature reaches 475 degrees at one inch below the surface.

f. Care and maintenance of kitchen range hoods shall comply with NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. Hoods, filters and duct work in exhaust systems located in galleys, clubs, lunch rooms, snack bars, cafeterias, shall be kept clean and free from grease accumulation. These will be professionally cleaned as required.

15. WAREHOUSE STORAGE SPACES. Standards applicable to the layout and utilization of all covered storage spaces of the naval shore establishment are set forth in NFPA 230 Standard for the Protection of Storage.

16. FIREWORKS. The sale, storage or use of fireworks by individuals on the installation, including housing areas, is prohibited. The use of fireworks as part of a public display may be authorized by the Commanding Officer and supervised by the fire department.

17. DUMPSTER UNITS. Dumpsters and other central trash disposal units shall be spaced a minimum of 15 feet from buildings, fire hydrants and storage areas. The doors and hatches of dumpster units shall be kept closed at all times.

18. OPEN AREAS AND OUTSIDE STORAGE

a. Dry weeds, grass, and brush shall not be permitted around buildings, open storage areas, railroad properties, and fuel hills. Such growth should be cut frequently and disposed of in a safe manner.

b. Areas beneath or within 50 feet of buildings shall be regularly policed to keep them free from accumulation of debris and combustible vegetation.

c. Grass shall be neatly trimmed in fuel handling and storage areas.

d. Outdoor lumber storage shall conform to NFPA 230 Standard for the protection of storage.

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e. Outside open storage, limitations and separations shall conform and comply with the requirements of reference (b).

19. BACHELOR OFFICER AND ENLISTED QUARTERS

a. Cooking is strictly prohibited in private rooms of BOQ, BEQ and duty sleeping quarters unless the room is equipped with an approved "kitchenette." Cooking and heating appliances shall not be located or installed in private rooms of bachelor quarters. Microwaves and coffee makers are the only appliances permitted in these spaces.

b. Only UL or FM listed electrical appliances may be used. Heat producing appliances (i.e., irons) shall be unplugged after each use. Allow units to cool down in a safe place away from combustible materials.

c. The use of candles or other similar devices is prohibited.

d. Use surge protectors or power strips with built-in circuit breakers to prevent the overload of electrical outlets. Multiple outlet devices without this protection are prohibited.

20. SENTRIES AND SECURITY PATROLS

a. The following instruction shall be given to all sentries, patrols and security guards prior to performing "watch" assignments. Upon the discovery of a fire, immediately sound the alarm, call the fire department (911), and stand by to direct emergency personnel.

b. A fire plan for all sentry posts, security guards and security patrols shall be available in the appropriate headquarters for purposes of personnel instruction. Such plans shall contain:

(1) Location of all fire alarm boxes in the vicinity of sentry posts and those included in or adjacent to any given patrol route.

(2) The proper fire reporting telephone number (911) to be used in the event of any emergency.

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(3) The location of available telephones for immediate use during "off work" hours.

c. To be of maximum value, sentries, patrols and security guards shall be thoroughly familiar with the following:

(1) All buildings adjacent to sentry posts, or on assigned patrol routes.

(2) Operating principles of all first-aid firefighting appliances and the proper equipment to use on various types of fires.

(3) The proper procedure in reporting a fire by using fire alarm boxes, telephone, radio or other fire alarm systems.

## 21. OPEN BURNING AND FIRES

a. Open burning and fires are prohibited and shall not be started at any location on the installation. Special circumstances shall be directed to the fire department for approval. Fires in approved barbecue pits or charcoal grills are allowed.

b. The use of charcoal or gas fired grills and fire pits, including tiki torches, is prohibited within structures, on boats, on or under balconies, decks or porches, or within 15 feet of combustible patios on ground floors.

c. Burning of trash and debris is permitted only at locations approved by the Commanding Officer and may be lighted only when authorized and supervised by the fire department.

d. Any and all open fires shall be prohibited when weather or local conditions or circumstances make such fires hazardous.

e. Incinerators for the disposal of classified or contaminated material shall be approved by the fire department.

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CHAPTER 6  
SMOKING REGULATIONS

1. PROHIBITED AREAS. Smoking is prohibited:

a. Inside all government owned or leased buildings and within 25 feet of any entrance or exit, any intake vents, or near any windows used for ventilation of such structures.

b. In or on government vehicles and equipment (i.e., forklifts, electric and gas carts, lawnmowers, cranes, etc.).

c. Inside warehouse shipping and receiving areas, storage facilities loading ramps, beds of trucks or trailers while loading or unloading combustible materials, and open storage areas,.

d. On barges loaded with flammable materials, in or near cargo holds of ships

e. Wharfs and piers (except designated smoking areas)

f. Aircraft hangar bays, around aircraft, aircraft parking areas, runways, taxiways, ramp areas on the airfield.

g. In locations where open flames or spark producing equipment is prohibited.

h. Within 100-feet of:

(1) Gasoline dispensing operations.

(2) Flammable liquid and gas handling or storage.

(3) Where bituminous and plastic coatings are being applied.

(4) Aircraft and aircraft parking areas.

i. Within a minimum of 200 feet of a ship engaged in gasoline or explosive transfer operations or any high speed refueling area.



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j. In all areas where explosives, chemicals, flammable, or highly combustible materials are stored or handled.

k. In any area that, due to prevailing conditions of operations, has required the posting of "NO SMOKING" signs.

1. Where prohibited by other DOD/Navy instructions.

2. RECEPTACLES FOR DISPOSAL

a. Suitable metal receptacles with self-closing lids for discarded smoking materials shall be provided in adequate numbers in all areas where smoking is permitted. Only cigarette and cigar butts, other tobacco remnants, and used matches shall be placed in such receptacles. The container shall not be used for disposal of any other waste materials and the contents saturated with water before being combined with other waste in trash collection containers.

b. All personnel using ashtrays will ensure that contents of ashtrays are emptied into receptacles provided for such materials, and will not be emptied into wastebaskets.

3. SMOKING PROVISIONS. Designated smoking areas must be clearly marked as smoking areas and must be approved by fire prevention.

4. POSTING OF SIGNS. "No Smoking" signs shall be posted conspicuously in all areas where smoking is prohibited. Designated smoking areas will be indicated by a "Designated Smoking Area" sign.

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CHAPTER 7  
HAZARDOUS OPERATIONS AND ACTIVITIES

1. GENERAL. Hazardous activities and operations shall be under the supervision and control of a job superintendent or supervisor who shall ensure that all regulations pertaining to the particular hazardous operation are enforced.

2. EXCAVATIONS. Excavating around gas mains, oil tanks, gasoline, or oil pipes is prohibited in areas where flammable gaseous conditions are suspected. In such places the air shall be tested for the presence of combustible gases. If a combustible gas is present, ventilation shall be provided by portable blowers designed for such use, or other satisfactory methods. Electrical equipment used in such areas shall meet the requirements of the National Electrical Code for explosive atmospheres.

3. RADIOACTIVE MATERIALS

a. The fire department shall be notified immediately of the transportation, storage, handling or use of any radioactive material on the installation.

b. The department controlling and/or using the material shall make the above notification to include the following information:

(1) The general type of material and possible emission hazard.

(2) The location of storage or use.

(3) Specific information on the physical properties and characteristics of the material which might aid in firefighting and protection of personnel.

4. VENTILATING HAZARDOUS AREAS. All blowers and associated equipment shall be explosion proof, properly maintained and grounded. All material and equipment used in connection with the ventilation shall be of such material and/or construction to preclude the possibility of any kind of spark being generated.

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5. LIGHTING HAZARDOUS AREAS

a. Only vapor tight lights approved for use in Class I, Group D, atmospheres shall be used.

b. Only sealed electrical leads shall be used within the danger area.

c. Electric service shall be supplied from sources outside the danger area.

d. Open switchboards, machinery and electrical equipment, circuit breakers, electrical outlets, lighting fixtures, etc., other than spark proof types located within the danger zone, shall be secured.

6. LIQUID PETROLEUM GAS (LPG)

a. LPG's (such as propane) are liquids under pressure but used as gas. In the gaseous state, LPG is a hazard comparable to any flammable natural or manufactured gas and, being heavier than air, requires special ventilation attention.

b. The same precautions apply to the use of LPG as are prescribed for acetylene, except that LPG is stable and no unusual hazard is attached to use above 15 PSI.

c. All installation, use and storage of LPG shall be in accordance with reference (b) standards.

7. BATTERY CHARGING SHOPS

a. Only those personnel authorized to handle, and instructed in the precautions necessary to the handling of, acids and charging of batteries shall be employed in battery shops.

b. Battery shops shall be adequately ventilated near the ceiling line to dispel hazardous accumulation of gases.

c. Air inlet openings at or below the level of batteries are essential regardless of the kind of exhaust.

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d. A vented hood over the batteries may be satisfactory for a small number of batteries.

e. Where natural ventilation is used, a vent stack to aid in producing upward drafts should be installed.

f. The charging rates shall be reduced as cells approach full charge in order to lower the rate of hydrogen liberation.

g. Battery vent caps shall be in place before attaching or detaching any charge cable. Connection between batteries shall not be disturbed while charging switch is "ON."

h. Smoking, open type lights and switches, flames and flame producing devices shall be prohibited in the vicinity of batteries that are being charged. Appropriate warning signs shall be posted.

#### 8. PAINTING

a. Spray painting shall not be conducted within buildings unless standard spray booths and exhaust systems are provided. Spray booths shall be designed, installed and maintained in accordance with NFPA 33 Standard for Spray Application Using Flammable or Combustible Materials.

b. Spraying operations shall be conducted only within designated areas. Particular attention will be given to providing adequate mechanical ventilation and posting "No Smoking" signs in all painting, spraying and paint storage areas. Sources of ignition, including open flames and sparks, shall be removed.

c. Bituminous and plastic coatings (vinyl system of painting) contain toxic and combustible properties that require rigid enforcement of fire and safety regulations. Flammable surface finishes shall have the approval of the Fire Chief before use.

d. Fire retardant paints that use flammable solvents are a greater fire hazard during application than ordinary paints because of low flash points. Increased precautions must be taken to prevent fire.

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e. Tarpaulins and drop cloths used during painting operations shall not be stored within buildings. Store them in ventilated metal lockers located at least 15 feet from the building.

9. TAR POTS, APPLICATION OF TAR, ASPHALT AND SIMILAR MATERIALS

a. Prior to operating a tar kettle or tar tanker, a request shall be made for a Hazardous Operation Permit from the fire department. This permit shall be posted at the job site while kettle or tanker operations are performed.

b. Tar kettles and tar tankers shall not be operated within 35 feet of buildings, combustible material or in areas classified as "high hazard." Tar kettles shall not be operated inside or on the roof of any building.

c. Tar kettles shall be operated in a controlled area identified by the use of traffic cones and barrier tape.

d. Tar kettles shall not be placed or operated within 100 feet of aircraft.

e. Two 10-lb multipurpose fire extinguishers shall be provided by the contractor performing the tar kettle operation and maintained within 25 feet of the operating tar kettle.

f. The tar kettle or tanker shall be attended by a competent operator familiar with fire extinguisher operation and fire reporting procedures.

g. Kettles for heating the materials shall be equipped with metal closeable lids, an operational temperature gauge, proper heat controls and the means of agitation to assure controlled uniform temperatures throughout contents.

h. The material shall not be heated above the temperature necessary to produce workable fluidity and never above the material's flash point.

i. Surfaces on which the material is to be flooded, mopped or otherwise applied shall be clean and free of any foreign substance.

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j. When the material is applied within buildings or other enclosed areas, the atmosphere shall be free of dust and adequate exhaust ventilation shall be provided.

k. All smoking, flame devices and/or other sources of ignition shall be prohibited in or near the area of application of the material.

l. Mops, brushes and other applicators shall be stored at a safe, isolated place when not in use.

m. Tar kettle fuel cylinders shall be secured to prevent tip over and kept a minimum of 10 feet from the burner flame.

#### 10. EXPLOSIVES HANDLING

a. Prior to loading/unloading of explosives on ships, the fire department will be notified for the inspection of piers/wharfs and the issuance of a hazardous operations permit.

b. Prior to transporting explosives within the installation, the fire department shall be provided with the time, route and the type of ammunition to be transported.

c. No persons other than the authorized driver and one helper or required personnel shall be permitted to ride on a vehicle transporting explosives.

d. The gasoline tank of a vehicle shall not be refueled while explosives are in the vehicle, except in an emergency and then only after the engine of the vehicle is stopped, all lights turned off and static grounding devices properly connected.

e. No person will be allowed to take matches, lighters or any other fire, flame or spark producing devices into any magazine or explosives area.

f. Smoking shall be absolutely prohibited in any magazine, magazine area, buildings, and around cars, wagons, motor trucks or boats which contain explosives or ammunition.

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11. MAINTENANCE ON OR NEAR FLAMMABLE AREAS

a. Non spark tools shall be used when working on any part of a system or unit designed for storage or handling of flammable liquids.

b. The use of other than nonferrous tools or open flame devices in the vicinity of flammable liquids or flammable vapors is strictly forbidden.

12. GAS FREE TESTING

a. A combustible gas/oxygen monitor test shall be performed by a certified, gas-free engineer/technician prior to any hot work operations to be conducted in or on outer surfaces of rooms, compartments or tanks, or in areas adjacent to rooms, compartments or tanks, nor on or in closed drums, tanks or other containers which hold or have held flammable combustible explosive materials, liquids or vapors.

b. During multiday operations, a certified, gas-free engineer/technician will conduct a gas free test prior to each shift's operation and a Hazardous Operations/Tank Safety Test Permit will be issued.

13. HOT WORK OPERATIONS

a. Hot Work operations include any heat, spark, or flame producing equipment or activities examples include but are not limited to welding, cutting, brazing, soldering, tar kettles, propane torches, grinding, spark producing equipment, open flames and open flame devices.

b. Requests shall be made for a hazardous operations permit prior to performing any hot work in any location other than a designated area as determined by the fire department. This permit shall be obtained from the fire department and issued on an hourly, daily, weekly, or monthly basis depending on the conditions and situations present. The Hot Work Permit shall be signed by the individual performing the hot work and the permit shall be posted on the job site at all times.

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c. All fires shall be immediately reported to the fire department by dialing 911. All fires will be reported regardless of size or type, even if already extinguished.

d. A request for an annually issued permit for a hot work designated area shall include a description of the type of work to be performed and the limits of the working area. The approved request will be posted in a prominent place in the vicinity of the authorized hot work area. The requesting activity shall provide a fire watch and fire extinguishing equipment.

e. The Fire Chief or authorized representatives shall have the authority to stop hot work operations which are being accomplished without a permit or which do not meet the standards set forth in reference (b) and other applicable regulations.

f. Securing Fire Alarm/Protection Systems is required to be performed in an area where smoke, heat or duct detectors are located and the hot work involved could produce sufficient amounts of heat or smoke to activate a device.

(1) A hot work permit will not be issued until all detection devices in the work area have been deactivated.

(2) When the work includes fire alarm systems, sprinkler systems, or any other type fire suppression system(s), the government contractor representative for the project will have the system(s) secured until all work has been completed.

g. Fire Extinguishers

(1) Fire extinguishers located in buildings and structures are part of the fire suppression system. These fire extinguishers shall not be used for or considered part of any hazardous operation activity.

(2) Two 10-lb multipurpose dry chemical extinguishers shall be provided by the contractor/sub-contractor performing the hazardous operation.

(3) All fire extinguishers on job sites will be fully charged, operable and appropriate for the type of possible fire.



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h. Fire Watches

(1) A fire watch shall "standby" at the hot work site with a 10lb multipurpose dry chemical fire extinguisher.

(2) The fire watch shall be familiar with fire extinguisher operations and fire reporting procedures.

(3) Fire watches shall watch for fires in all exposed areas. When the hot work operation is secured, the area shall be inspected thoroughly for any hot spots or smoldering fires.

(4) The fire watch shall be posted for at least 30 minutes after completion of hot work operations.

i. Operators of welding and/or cutting equipment shall be properly instructed and qualified to operate such equipment. Instruction shall include all pertinent safety hazards.

j. Hot work operations shall cease whenever ammunition, dangerous cargo or fuel transfer is within 200 feet.

k. Hot work operations, open flames or spark producing equipment are prohibited within 100 feet of any type fueled aircraft or aircraft parking areas.

l. Hot work permits are required for all hot work done on the wharf or pier side of any sea going vessel. None shall be required for the seaward side.

m. No hot work permit will be issued for spaces that may contain dangerous gases, vapors or fumes unless a Marine Chemist or a Gas Free Engineer certificate is obtained stating "SAFE FOR HOT WORK."

n. A 35 foot minimum radius shall be maintained between all combustible material and hot work sites.

o. Where relocation cannot be accomplished or is impractical, combustibles shall be protected with flame proofed covers or otherwise shielded with metal or fire resistant guards or curtains to prevent the spraying of sparks, hot slag, etc., onto combustible material.

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p. Openings or cracks in walls, floors, or ducts within 35 feet of the hot work site shall be tightly covered to prevent the passage of sparks to adjacent areas.

q. If hot work is to be done on walls, floors or ceilings, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation. Where combustibles cannot be relocated, a fire watch on the opposite side from the work shall be provided in addition to the primary fire watch.

r. Acetylene and oxygen cylinders on portable welding rigs shall be properly secured in place. Do not expose cylinders to excessive heat, sparks, slag and flames. Valve protection caps shall always be in place except when cylinders are in use or connected for use.

s. Compressed gas cylinders used in welding operations shall conform to DOT labeling standards. Acetylene cylinders, in use, shall be in a "valve end up" position and secured to prevent tipping. Acetylene cylinders shall maintain a 15 psi or less gage pressure at all times while in use and oxygen cylinders shall be kept free of oil and grease to prevent fires and/or explosions.

t. Cutting, welding and all other types of "hot work" equipment to be used shall be in satisfactory operating condition. Equipment shall be checked prior to and during work operations for leaks and deterioration in hoses, cables, valve stems, couplings, etc.

u. All power to electrical welding equipment shall be secured when an operator leaves work temporarily or stops work for an extended period of time.

#### 14. WHARF AND PIER AREAS

a. Gassing equipment. Gassing equipment aboard open type barges shall be permitted only after special protective measures have been arranged with the fire department. Fuel for refueling equipment shall be transported in approved safety cans.

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b. Berthing restrictions. Fuel tankers and gasoline barges should not be berthed abreast of other fuel tankers or barges. They shall not be berthed abreast of other ships unless engaged in fueling operations for that ship.

c. Access lanes of sufficient width, 20 foot minimum, to permit free travel of emergency vehicles on piers and wharves shall be maintained and kept clear of all equipment and other obstructions at all times. Exception to this rule is during crane operations.

d. Dockside fueling operations. Ship Commanding Officers and shore side supervisors shall ensure that adequate and effective fire prevention measures are observed while refueling pier side. Pier side cutting, welding, or other hot work operations shall not be permitted within 100 feet during fueling operations. Ship Commanding Officers will observe ships SOP covering hot work operations during fueling operations.

e. Dockside emergency fuel staging operations

(1) The following procedures shall apply to the storage of flammable and combustible liquids in portable tanks and/or intermediate bulk containers (i.e., FRAC/Baker Tanks, etc.) whose capacity exceeds 793 gallons in the event of an emergency requiring off-loading of ships fuel:

(a) Tanks shall be designed and built in accordance with recognized engineering standards for the material of construction being used. Tanks shall be of steel or other approved noncombustible material. Tank construction and their appurtenances shall be compatible with the liquid to be stored. In case of doubt about the properties of the liquid to be stored, the supplier, producer of the liquid, or other competent authority shall be consulted.

(b) Every tank shall be provided with means to prevent an accidental release of liquid from endangering important facilities and adjoining property or from reaching waterways.

(c) The placement and number of tanks shall meet approval of base environmental, NAVFAC, harbor operations and fire department with final approval from the base Commanding Officer or Executive Officer.

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(2) Additional fire preventive measures to be taken:

(a) Each tank will have secondary spill containment measures in place.

(b) A 50 foot area, in and around tanks, will be roped off restricting vehicle access and limit access to unauthorized personnel.

(c) Smoking shall be secured on the ship ("Bravo" Flag flown) and pier/wharf for the duration of the operation. Posting of "NO SMOKING" signs and "NO SMOKING/NO OPEN FLAMES WITHIN 50 FEET" placards visibly posted around each tank for the duration of the operation.

(d) Posting of a Fire Watch with a minimum of two 10lbs ABC extinguishers that are immediately available.

f. Fire protection equipment

(1) The ship's fire hose and other firefighting equipment shall be connected and ready for immediate use during fuel transfer operations.

(2) Shore side fire equipment shall be in a ready condition and a sufficient supply of AFFF shall be available for immediate use.

g. Requirements aboard ship

(1) A competent hose watch shall be provided from ship's company for all discharge operations. The hose watch will stand by at all times to raise or lower hose, watch for strains or chafing of the hose, close the ship's valves or signal the pump man in the event of emergency or upon receipt of signal from the wharf man.

(2) All tank manhole openings shall be kept closed. The bilge plugs shall be kept closed and unclamped, or fitted with flame arrestor screens if open. All flame arrestor screens must be in place and in good condition.

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## h. Dockside personnel requirements and duties

(1) An experienced and responsible supervisor shall be in charge of dockside operations when any transfers are started or stopped or when tanks are being sampled.

(2) The wharf man and hose watch shall have a thorough understanding of established rules and regulations governing a fuel transfer operation. Upon noticing violations or omissions which endanger the operation, fuel transfer shall be stopped and shall not resume until the unsafe condition has been corrected.

(3) At least one experienced, responsible wharf man and hose watch shall remain on duty dockside during the entire period of bulk cargo transfer. The hose watch shall stand by at all times to close the wharf valve and to order pumping or gravity transfer stopped on signal from the ship or in the event that a spill or leak is observed. Spills or leaks shall be cleared before fuel operations are resumed.

(4) Only persons on official duty shall be allowed on the wharf during fueling operations.

(5) Personnel engaged in fuel transfer operations shall not leave their assigned posts of duty until properly relieved.

## i. Sources of ignition

(1) No smoking shall be permitted aboard any ship involved in fuel handling operations and any other vessel within 100 feet. Smoking shall cease prior to the start of operations and shall not be permitted until the Commanding Officer of the ship concerned deems it safe to remove the restriction. However, in no case shall smoking be permitted until 30 minutes after completion of operations. Similarly, smoking will not be permitted in any area within 100 feet of a ship engaged in fuel transfer operations.

(2) All sources capable of igniting fuel vapors shall be prohibited within an area of at least 100 feet of a ship engaged in fuel transfer operations. Sources of ignition include motor vehicles, power boats, locomotives, non-spark proof electrical devices and motors, naked lights, friction sparks, cranes and mechanical loading devices, etc.

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(3) Cutting, welding, or other hot work. Repairs involving cutting, welding, or other hot work shall be limited, as far as practical, at piers/ wharfs. Such hot work shall not be permitted under the following circumstances:

(a) During gas-freeing operations;

(b) Within 100 feet of bulk cargo operations involving the loading or unloading of hazardous materials, or flammable or combustible materials;

(c) Within 100 feet of fueling (bunkering) operations; and

(d) Within 100 feet of explosives.

(4) Streets or roadways leading to piers and wharves over which fuel transfers are being made must be effectively barricaded a minimum of 100 feet from the transfer area.

(5) Persons engaged in loading or unloading shall not wear shoes or boots with exposed metal objects in soles or heels.

(6) Only non-sparking tools shall be used within the restricted areas surrounding fuel transfer operations.

(7) Only those electrical devices approved or listed by Underwriters or Factory Mutual Laboratories for use in hazardous locations will be permitted in fuel handling areas. Temporary electrical installations are not permitted in such areas.

(8) Transfer of fuel to small boats will be prohibited during electrical storms, except under emergency circumstances.

(9) Energized radars should not be aimed in the direction of operations involving fuels or fuel handling, explosives or transfers of ammunition.

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## j. Bonding

(1) Static bonding devices shall be in place and secure between the ship and shore pipeline before fueling hose is connected and shall be left in place until after such hose is disconnected.

(2) Before permitting a fuel powered boat to fuel from shore, a proper bonding connection shall be made. These connections should be of wire or solid metal and care shall be taken to see that the contacts are properly made.

(3) Where the use of a metallic hose is not practical and a separate container must be used to pour fuel into the boat tanks, such container shall first be bonded with the boat tanks by a flexible conducting wire.

## k. Smoking

(1) Smoking is prohibited on wharves and piers except in designated areas approved by the fire department.

(2) No smoking shall be permitted aboard any ship, including any outboard ship, and on the wharf or pier during fueling and weapons move operations.

15. AIRCRAFT HANGARS AND FLIGHTLINE AREAS

## a. Welding Operations

(1) The aircraft welding fire safety checklist (Figure 7-16-1) shall be filled out.

(2) A hazardous operations permit shall be obtained from the fire department.

(3) Only gas shielded arc welding shall be performed on aircraft.

(4) Aircraft welding operations shall be done outdoors whenever possible.

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(5) Only qualified welders, trained in the technique and familiar with the hazards involved, shall be permitted to do this work.

(6) Aircraft hangars where welding is performed shall be equipped with fixed fire protection equipment (approved automatic foam-water deluge system) as specified in NFPA 409. Welding will not be permitted if such fixed fire protection equipment is inoperative for any reason.

(7) Good housekeeping shall prevail in welding area. Floor drains shall be checked periodically to determine that no flammables or combustible liquids or vapors are present.

(8) Two 10lbs multipurpose fire extinguishers shall be positioned in the immediate area of the welding operation, ready for instant use. A qualified fire watch shall be assigned to operate this equipment and shall monitor the entire operation.

b. Refueling and defueling of aircraft in hangars is prohibited.

c. All electrical equipment will be of the approved type. Electrical equipment used within 18 inches of the floor space will be explosive proof.

d. Vehicles without approved spark arrestors on the engine exhaust system will not be operated inside high-hazard areas and buildings such as hangars and engine shops. No catalytic converter-equipped vehicles are permitted.

e. Vehicles will not be left unattended while blocking fire lanes.

f. Aircraft will always be parked to permit rapid removal or relocation.

g. Appropriate tow bars will be kept in sufficient stock and readily available to facilitate removal of aircraft from hangars in case of emergency.



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h. In case of fire within a hangar or in an adjacent building and when it can be done with reasonable personnel safety, all aircraft will be immediately removed from the hangar to a safe distance. Supervisors on duty within the hangar or in the vicinity when a fire alarm sounds will remain in the area to assist in the aircraft evacuation.

i. Aircraft located inside hangars will be effectively grounded at all times to allow resistant static ground.

j. Housekeeping will be maintained at the highest level in hangars and shops associated with aircraft maintenance. Areas around and under aircraft will be kept free of flammable liquids and combustible waste.

k. Drip pans will be placed under engines in hangars and under other units or parts of engines which are likely to drip.

l. Use of volatile liquids, under pressure with flash point below 100 degrees F, for cleaning purposes is prohibited. Only authorized cleaning solvents will be used.

m. Gasoline engine powered air compressors will not be positioned in hangars at any time.

n. Spray painting of complete aircraft in hangars is prohibited.

o. "Touch-up" painting of aircraft is authorized only when

(1) Accomplished during regular maintenance on aircraft and is

(a) Limited to 10% of the surface area, exterior or interior of the aircraft.

(b) Involves no more than one quart of material by spray or one gallon by brush or roller.

(c) Complies with the guidelines set forth in NFPA 410, Aircraft Cleaning, Coating, Painting, and Paint Removal.

(2) Aircraft shall have static grounds and hangar doors will be open to provide cross ventilation.

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(3) Aircraft maintenance and servicing shall not be permitted within 25 feet of spray-painting operations.

p. Fuel will not be drained from the aircraft onto the ramp or allowed to run into sewer lines, ditches, etc. Drip cans and pans will be used to catch fuel leaking from aircraft. Metal drip cans and pans shall be properly grounded.

q. All fuel spills will be reported immediately via 911. Fuel spills are divided into three classes, requiring specific action.

(1) Class I primary spills usually involve an area less than two feet in any plane dimension. Using agency will immediately clean up spill with approved absorbent material.

(2) Class II spills involve an area not over ten feet in any plane dimension, or not over 50 square feet in area, and not of a continuing nature. These spills require a using agency fireguard and immediate notification to the fire department. Maintenance operations will cease, power equipment will be shut down, and the area will be cleared of personnel. Upon arrival, fire department personnel will supervise using agency personnel in clean-up operations.

(3) Class III large spills involve an area 10 feet in any plane dimension and over 50 square feet in any area or of a continuing nature. These spills will require a using agency fireguard to be posted and immediate notification made to the fire department. These conditions on the flightline will be declared a major response. Maintenance operations will cease, power equipment will be shut down, and the area will be cleared of personnel within 100 feet. Using agency personnel will attempt to contain the spill until arrival of fire department Personnel. Hazardous Materials Minimization Division will be notified by the fire department Dispatcher for clean-up response.

r. Smoking on the flightline is prohibited.

s. Fire protection equipment will not be used to remove fuel, oil, and hydraulic fluid spills.

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t. All shops which handle fuel or aircraft shall maintain approved absorbent materials, brooms, shovels, and empty open-top drums in their work areas for quick spill response. All used clean-up material will be properly disposed of through the hazardous materials minimization division of the staff civil engineer department. Used clean-up material will not be stored inside hangars and buildings.

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AIRCRAFT WELDING FIRE SAFETY CHECKLIST

Attach to Hazardous Operations Permit

Display at Job Site

Gas Shielded Arc Welding

	Yes	No
<u>Safeguarding Fuel Systems</u>		
Fuel system closed on aircraft being welded	_____	_____
Fuel systems on aircraft within 100 feet closed	_____	_____
Fuel tank access plates in place	_____	_____
Fuel tank fill and vent openings closed or covered	_____	_____
Fuel lines, valves, manifolds in place, secured or capped	_____	_____
Streamers attached to covered fuel vents	_____	_____
Pressure removed from fuel systems	_____	_____
Area checked with Combustible Gas Analyzer (inc. floor drains)	_____	_____
<u>Safeguarding Other Work</u>		
All other work suspended within 20 feet of welding point	_____	_____
Area placarded: "Welding Operations in Progress"	_____	_____
Welding screens in position	_____	_____
Adjacent workers notified prior to start of operations	_____	_____
<u>Housekeeping</u>		
Welding area clean	_____	_____
Combustible materials removed from area	_____	_____
Floor clear of any oil or fuel spills	_____	_____
Floor drains checked for oil contamination	_____	_____
<u>Welding Equipment</u>		
Generators 5 feet (clear of aircraft engine, fuel tanks)	_____	_____
Electrical equipment at least 18 in off floor	_____	_____
Ground leads clamped to grounding plug	_____	_____
Gas cylinder securely fastened to prevent tipping	_____	_____
Regulators, gauges working properly	_____	_____

Figure 7-16-1

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Mobility of Aircraft

Aircraft parking brakes off and wheels chocked

Training available - tow bar attached

Hangar doors open

Clear path to permit towing aircraft outside

Qualified tow operator available and alerted

Fire Protection

Two 10-lb multipurpose fire extinguishers immediately adjacent

Automatic sprinkler protection operable

Fire watcher assigned, on duty

Fire Watch Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Supervisor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Figure 7-16-1

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CHAPTER 8  
ELECTRICAL

1. GENERAL. Electrical room, mechanical rooms, air handling rooms, telecommunication rooms, and transformer rooms shall not be used for other than their designated purpose. Storage is prohibited in these spaces.

2. WIRING

a. All wiring, appliances and circuits shall be installed and operated in accordance with National Electrical Code NFPA 70. Only qualified electricians shall replace, repair or install electric equipment. Use of temporary type wiring for permanent and semi-permanent application is prohibited. Electrical devices shall be labeled or listed by Underwriters Laboratories or Factory Mutual for the intended application.

b. Defective electric cords, lighting fixtures, appliances, electrical outlets and switches, shall be repaired or removed. Loose outlet plates may result in short circuits and shall be replaced. All defective electrical equipment shall be reported immediately to and repaired by NAVFAC electricians. Electrical cords or wiring shall be without splices or tape and of sufficient wire gauge to safely operate the appliance.

c. Electrical panels and switches shall not be blocked.

d. Combustible materials shall not be placed within 18 inches of lights, electrical motors, switches, or panels.

3. ELECTRICAL APPLIANCES

a. Electrical appliances and devices shall bear the label of, or be listed by, the Underwriters Laboratories (UL). All electrical wiring, equipment and devices, including electrically operated vending machines and water coolers installed and operated in aircraft hangars, automotive repair shops and other areas where flammable vapors, gases or dusts may be present, shall be UL listed for the particular hazardous area.

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b. All soldering irons, hot plates, coffee makers, toasters and other portable electrical heating devices, including space heaters, shall be disconnected from outlets when not in use. Adequate and safe clearance shall be maintained between all such electrical devices and combustible materials. A minimum of three foot clearance shall be maintained for all space heaters.

c. Extension cords with more than one outlet, other than ones with surge protection, will not be used. Extension cords are for temporary use only. A work order shall be submitted for a permanent installation. Cords shall be the same size (or larger) and type as installed by the manufacturer of the equipment on which it will be used and must be one continuous length without splice or tape and plugged directly into its own electrical source. Extension cords, together with their connections and fittings, shall be the grounded type. They shall be inspected frequently and maintained in a safe condition. All extension cords, including power strips, shall be kept dry and free from oil and grease.

d. Except in private homes, portable electrical heating devices, such as flat irons, soldering irons and glue pots, shall be provided with readily visible pilot light to indicate the current is on.

#### 4. CIRCUITS

a. Electrical circuits shall not be overloaded or overfused. Fusing of circuits shall meet the National Electrical Code NFPA 70 and be accomplished by NAVFAC electricians. Use of multiple outlet plugs (cheater plugs) is prohibited.

b. When a circuit has been interrupted by a blown fuse, or tripped breakers, and the breaker or fuse of same rating continues to be electrically inadequate, the source of disturbance must be located and eliminated by an authorized electrician before restoring power to the interrupted circuit.

c. All electrical switches in master switch panels shall be correctly labeled to indicate the circuits and/or devices which they control.

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d. Restrictive devices (i.e., metal, duct tape, masking tape, etc.) on circuit breakers and fuse panel switches which prevent the manual operation or internal activation of the circuit overload protection feature shall not be used. Circuit breakers and fuse panel switches which are required to be "ON" at all times to protect essential equipment shall be labeled with embossing tape, tags or other suitable means.

## 5. FLAMMABLE AREAS

a. Electrical equipment used or located in areas where explosive vapors are present shall conform to the requirements of the National Electrical Code NFPA 70.

b. Tools, metal fan blades, door latches and similar devices used in the vicinity of flammable gases or vapors shall be of a nonferrous or non-sparking type. Non sparking shoes shall be worn when necessary.

c. Unguarded electric lamps shall be kept clear of combustible materials. They shall not be allowed to rest against walls, wooden benches or any flammable material.

6. FLUORESCENT LIGHT FIXTURES. Fluorescent light fixtures shall be mounted in accordance with the requirements of the National Electrical Code. Only fixtures approved for flush mounting shall be recessed in ceilings or walls. Adequate clearance shall be provided for all fluorescent fixtures.

## 7. GROUNDING

a. Substantial conductors having low resistance to ground shall be used to ground all stationary and portable machines, equipment and other devices in which static charges may be generated in the vicinity of flammable gases or vapors. The contact between the conductor and ground shall be in accordance with the National Electrical Code.

b. All vending machines using electrical power shall be properly grounded. Motors, compressors and filters shall be kept free from accumulation of grease and lint.



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c. Extension cords for lights and electrically operated tools or devices together with their connections and fittings shall be of the grounded type; they shall be inspected frequently and be maintained in a safe condition. All extension cords shall be kept dry and free from oil and grease. Use of extension cords or cables which have been spliced or repaired with tape is strictly prohibited.

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CHAPTER 9  
HEATING AND AIR CONDITIONING SYSTEMS

1. GENERAL. The following provisions apply to all heating and air conditioning systems:

a. Furnace rooms, heat exchangers, boiler rooms, heating and air conditioning rooms shall be kept free of all materials which are not an integral part of the system. Storage of any other type of material or equipment is strictly prohibited inside such spaces.

b. Adequate clearances, as specified by reference (c), shall be maintained between flammable material and steam pipes, furnaces, flues and appurtenances. Exposed surfaces too hot for the bare hands shall be considered hazardous.

c. The use of open flame heating devices is prohibited in areas where flammable vapors are likely to accumulate. These areas include gasoline stations, garages, paint shops and aircraft hangars.

d. The use of wick type kerosene heaters is prohibited

e. Chimneys shall be inspected and cleaned at least annually and whenever soot buildup is suspected.

f. NFPA 52, 54 and 58 lists standards for installation, maintenance and storage of appliances which burn natural or manufactured gas. These standards are applicable to naval shore facilities.

g. Matches or flames shall NEVER be used for leak testing on flammable gas lines. Small leaks can be located while a system is under operational pressure by liberally applying soapy water or a bubble foaming compound to the joints; expanding bubbles will identify the leaks. In case of large leaks, the gas supply shall be shut off and the piping visually inspected.

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## 2. OIL AND GAS FIRED HEATERS AND APPLIANCES

a. All gas fueled heating devices shall be equipped with automatic safety pilots, automatic safety controls, or types approved by the American Gas Association and shall bear approval labels of UL or Factory Mutual (FM) laboratories.

b. Accessible shut off valves shall be provided on all oil fired heaters and similar equipment.

c. Oil burning equipment shall be frequently inspected and periodically overhauled by competent, responsible maintenance personnel. Heating units, vent stacks and flues shall be thoroughly cleaned at least once a year.

d. Adequate operating instructions, including fire prevention measures, shall be posted near the equipment.

e. Safety devices, thermostats and similar control equipment shall be frequently inspected and maintained to ensure proper operation.

f. Large ranges and ventilating systems in galleys, clubs and exchanges shall be installed and maintained in accordance with reference (d).

g. Deep fat fryers shall be equipped with a separate high limit control in addition to the adjustable operating control thermostat for heat source shut down when fat temperature reaches 475 degrees one inch below the surface. Exhaust hoods, filters and duct work located in all food service areas shall be kept clean and free from grease accumulation. These will be professionally cleaned as required.

## 3. AIR CONDITIONING

a. All air conditioning units shall be installed and maintained in accordance with the National Electric Code and NPA 90A and 901.

b. All flexible cords attached to window units shall be used only as supplied by the manufacturer. Insulation must be unbroken with tight connections. No extension cords or splices shall be permitted.

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c. Branch circuits supplying electric power to air conditioning units shall not supply lighting units or other appliances.

d. When installation is complete and before operation, each air conditioner shall be inspected by qualified personnel from the Public Works Department.

#### 4. PORTABLE HEAT PRODUCING EQUIPMENT

a. Portable heat producing equipment shall be listed, labeled or approved by UL or Factory Mutual (FM) laboratories.

b. Portable electric space heaters shall have built in thermostats and tip over switches. All other electric devices shall have either a built in pilot light or be powered from a switch controlled receptacle with pilot light. Written approval must be obtained from fire prevention for use of space heaters inside installation buildings and structures.

c. A minimum clearance of three feet shall be maintained in and around all portable space heaters and shall not be operated underneath furniture. Space heaters shall be plugged directly into their own electrical source and unplugged when not in use.

d. Portable space heaters using gas or liquid fuel are authorized only for use at construction sites and as interim emergency heating in facilities requiring protection from cold.

e. The use of open flame lighting devices such as oil lamps and candles is prohibited in public facilities and clubs unless a special permit for use is obtained from the fire department. Open flame portable cooking and food warming devices such as tank-fired or gas fired grills and solid fuel cans shall not be used inside structures.

f. The use of charcoal or gas fired grills and fire pits, including tiki torches, is prohibited within structures, on boats, on or under balconies, decks or porches, or within 15 feet of combustible patios on ground floors.

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CHAPTER 10  
FLAMMABLE LIQUIDS AND HAZARDOUS MATERIALS

1. STORAGE AND HANDLING OF FLAMMABLE LIQUIDS

a. Limitations on floor areas and clearances of different types of stored materials are to comply with reference (b).

b. Dangerous chemicals and compressed gases shall be stored in such a manner that accidental breakage, leakage, rupture of containers, or exposure to fire, heat, or water will not result in the combining of such materials with other substances which might produce explosive or flammable gases, toxic fumes, or risk the safety of personnel and material.

2. FIRE DOORS. Fire doors, fire exits or fire shutters shall not be obstructed, blocked in any manner, or intentionally wedged open. High combustible or flammable materials that may produce a flash fire should not be stored near any opening in a firewall. Fire doors are to be kept closed at all times and self-closing devices shall be kept in proper working condition.

3. BULK STORAGE. Flammable liquids should be stored in special fire resistive buildings with firewalls as required by published standards. However, should general warehouse storage be required due to lack of space, the following precautions shall be taken:

- a. Use end bays only.
- b. Handle containers carefully to avoid breakage.
- c. Remove and destroy leaking containers.
- d. Maintain accessibility to stack interior for firefighting purposes.
- e. Ensure proper ventilation for materials that give off flammable vapors.
- f. Avoid any location where spilled liquids may come into contact with spark or flame.
- g. Use clean, dry sand or Fuller's earth, or diatomaceous earth, etc., to absorb spilled flammable liquids.

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- h. Use only spark enclosed or spark proof fork trucks.
- i. Do not store close to combustible materials.
- j. These storage areas shall be posted with "No Smoking" signs.

#### 4. DAY TO DAY USE OF FLAMMABLE LIQUIDS

a. Flammable and combustible liquids essential to a facility's mission shall be stored in approved flammable liquid storage cabinets within the building. Daily needs shall be kept in approved, labeled, closed containers, and any surplus returned to the cabinet prior to the close of the workday. Each cabinet must be labeled "FLAMMABLE, KEEP FIRE AWAY." Vent holes shall be capped unless vented to the outside. Number of cabinets and placement in building shall comply with reference (c).

b. Flammable and combustible liquids shall not be stored in connex boxes (transportation and storage containers) or in buildings not designated as flammable/combustible storage. Storage areas for flammables or explosives shall be plainly marked to indicate such storage. Combustible solids (i.e., paper rags, wood products, etc.) shall not be stored with flammable or combustible liquids in bulk storage or in flammable storage cabinets.

5. CLEANING OPERATIONS. The use of gasoline, naphtha, thinners, or other flammable liquids for cleaning automobile parts, floors, desks, etc., is forbidden. All cleaning operations shall be performed with nonflammable safety solvents.

6. GASOLINE. Containers of gasoline shall not be carried within any government or privately owned vehicle while on the activity. This does not apply to safety containers not exceeding six gallons used to transport gasoline from service stations to private residences for use in powered lawn and garden equipment and recreational vehicles.

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## 7. COMPRESSED GAS CYLINDERS

a. Compressed gases shall be stored in an upright position and secured in place to prevent accidental breakage, leakage, rupture of containers or exposure to fire, heat or water will not result in the commingling of such materials with other substances which might produce explosive or flammable gases, toxic fumes or jeopardizes the safety of personnel and materials.

b. Compressed gas cylinders with evidence of excessive rust, corrosion, dents, nicks, deep scratching or other surface defects are to be considered hazardous and shall be bled down to atmospheric pressure and disposed of. All gas cylinders shall be stored in the proper type of racks. Where more than one type of gas is in use, each shall be secured separately.

c. Spaces where gases have been released shall be tested by a Gas Free Engineer and declared safe prior to permitting personnel to enter.

d. Caution shall be exercised to ensure against allowing any oil, grease, alcohol, gasoline or other flammable substance to come into contact with oxygen under pressure. A high-pressure leak from any oxygen cylinder may cause a sufficient amount of rapid oxidation to ignite nearby metal. Failure to comply with these precautions may result in fire and/or rupture of the oxygen cylinder.

e. Compressed gas cylinder caps shall be in place except when the cylinders are in service of connected ready for service.

## 8. STORAGE AND HANDLING OF HAZARDOUS MATERIALS

a. Limitations of floor areas and clearness of different types of stored materials are included reference (c).

b. Dangerous chemicals shall be stored such that accidental breakage, leakage, rupture of containers or exposure to fire, heat or water will not result in the commingling of such materials with other substances which might produce explosive or flammable gases, toxic fumes or jeopardize the safety of personnel and materials.

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CHAPTER 11  
FUELING OPERATIONS

1. GENERAL. Storage, handling and use of flammable liquids shall conform to standards set forth in NFPA 30.

a. Used Flammable Liquids. Used flammable liquids shall be collected in steel drums, cans or other designated receptacles and properly disposed of in daily.

b. Duplicator Fluid. All duplicator fluid containers must be marked: "FLAMMABLE MIXTURE", "DO NOT USE NEAR FIRE OR OPEN FLAME", "DO NOT USE INTERNALLY", and "POISON". This liquid shall be treated as a flammable liquid.

c. Liquefied Petroleum Gases. The storage and handling of liquefied petroleum (LP) gases shall conform to standards set forth in reference (b) NFPA 58 and 59.

d. Radar and Radios. Fueling operations or transfer of flammable liquid having a flash point below 100 degrees F shall be prohibited in the vicinity of operating high intensity radar equipment, high frequency radio antenna or antenna down leads.

e. Explosives in Vehicles. The gasoline tank of a vehicle shall not be refueled while explosives are being transported, except in an emergency, and then only after the engine has been stopped, all lights turned off and a static grounding strap properly connected.

f. Spark Arrestors. Gasoline powered vehicles, operating in hazardous areas such as fuel farms, hangars and other areas where flammable liquid vapors may be present shall be equipped with spark arrestors.

2. PERMITS AND SUPERVISION

a. The fire department shall be notified of proposed transfers of bulk gasoline, oil, explosives or other hazardous materials when those transfers deviate from the provisions of this instruction.



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b. Simultaneous transfers of dangerous materials shall not be made except in case of an emergency. There shall be no simultaneous transfers of dangerous materials in the same vicinity except upon approval of the installation Commanding Officer. All fire and safety precautions shall be observed.

c. Ammunition transfers shall be under the supervision of the Weapons Officer. All safety precautions shall be observed, including fire watches, with proper firefighting equipment in position, ready for instant service.

### 3. FLAMMABLE LIQUIDS

a. Dispensing equipment shall be checked regularly for leaks at pipe connections, stuffing box, and at meter. When leaks are found they shall be repaired by an authorized repairman, and the pumps shall be kept out of service until the repairs have been made.

b. All containers used for flammable liquids shall be UL approved.

c. Containers of gasoline shall not be carried within trunks of any government or privately owned vehicle.

d. Empty flammable liquid containers shall not be stored or repaired until they have been thoroughly purged and tested for hazardous vapors. A certificate of "gas free" must be obtained from the Gas Free Engineer.

### 4. LEAKS AND SPILLS

a. Gasoline tank cars, tank trucks and aircraft fueling trucks shall be attended by qualified and authorized personnel during fueling and servicing operations.

b. Any device which restricts instant shut off of fuel lines during fueling and servicing operations is prohibited.

c. Automobiles and other gasoline or electric motors shall not be started within 100 feet of a fuel spill until the exposed area has been thoroughly cleaned and the flammable vapors dissipated.

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d. Every fuel spill is a potential fire source and must be cleaned up by the host activity. The fire department shall be notified immediately, via 911, of all fuel spills. Where possible, fuel shall be cleaned up by using an absorbent cleaning agent such as diatomaceous earth, speedy dry or swabs. Use caution not to create any sparks or heat in spill area.

e. The operation of any vehicle leaking fuel shall be prohibited until the necessary repairs are affected.

## 5. DISPENSING OPERATIONS

a. Class I (flash point below 100 degrees F) or Class II (flash point at or above 100 degrees F) flammable liquids, as defined in NFPA 30, shall not be drawn from or dispensed into tanks or containers within a building except with the drum in an upright position, using approved type barrel pumps and in approved locations, i.e., flammable liquid storage and dispensing rooms. Containers other than approved safety cans from which Class III (flash point at or above 140 degrees F) materials are dispensed shall be equipped with an approved spring loaded self-closing lid.

b. Gravity discharge within a building of Class I or Class II flammable liquids from tanks, drums or containers, other than safety cans, is prohibited.

c. Only certified and authorized personnel shall be permitted to operate fueling equipment. They shall be required to have a thorough knowledge of the hazards involved and know the regulations governing the handling of flammable liquids.

(1) Shall turn off engine and vehicle lights before taking on fuel.

(2) During fueling of vehicles, the operators shall not smoke or light a match or lighter and there shall be no open flame in the vicinity during fueling or defueling operations.

(3) In the event of an emergency they shall

(a) Shut off the electric power to all dispensing devices.

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(b) Know the location and operation of first-aid and on scene firefighting equipment.

(c) Call 911 and provide the 911 Emergency Services Dispatcher with:

1. Name of individual making telephone call.
2. Telephone number where call being placed.
3. Exact location and nature of the emergency.

#### 6. BONDING

a. The dispensing nozzle must be in contact with the fill pipe and attended at all times when in use. Bonding connections shall be made to tank trucks and tank cars before dome covers are removed and shall not be disconnected until such covers have been replaced. Internal vapor pressure shall be relieved before the dome covers are opened.

b. To prevent static discharges, all tanks, hoses and containers shall be kept in constant bond or metallic contact while flammable liquids are being poured.

c. After unreeling the tank truck gasoline hose and prior to use, the nozzle must be brought in contact with some metal part of the vehicle remote from the fuel tanks to ensure static discharge occurs away from fuel.

d. Class I and II flammable liquids shall not be dispensed into containers unless the nozzle and container are in constant metallic contact.

#### 7. FUEL DISPENSING NOZZLES

a. Nozzles used in connection with gasoline dispensing apparatus shall be of UL approved type, manually controlled and automatic closing.

b. Operators dispensing flammable liquids shall not leave nozzles or valves unattended when in use.

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c. No ratchet or other hold open device shall be used on nozzles of gasoline dispensing apparatus at marine and self-service stations or on tank vehicles servicing motor vehicles, lawn mowing equipment or aircraft.

#### 8. FUEL DISPENSING CONTAINERS

a. Containers used for dispensing flammable liquids shall be of a type approved for such use by Underwriters Laboratories, Inc., or other recognized testing authority. They shall be maintained in good condition. Contents of leaking containers shall be transferred to serviceable containers.

b. Containers, other than approved safety cans from which combustible liquids having flash points above 100 degrees F are dispensed, shall be equipped with self-closing valves, have metal drip pans provided and shall be cleaned regularly.

#### 9. SHIPPING AND TRANSFERRING

a. Labeling. All flammables, including intrastate shipments shall be in approved containers and tagged or labeled in accordance with regulations of the U.S. Department of Transportation.

b. Red label material, liquid or gas (except medical supplies or similar material which may require inside storage for security reasons), shall not be stored in transit sheds or on piers and wharves. This material shall be stored in an area approved in advance by the fire department.

#### 10. SERVICE STATIONS

a. No smoking, open lights, torches or other sources of ignition shall be permitted within 100 feet of gasoline dispensing pumps.

b. No gasoline shall be dispensed into a vehicle:

- (1) While the engine is running.
- (2) While the occupants are smoking.
- (3) Without a proper cap for the gasoline tank.

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(4) Unless fire extinguishers are available.

(5) While talking on mobile or cell phones.

c. In the event gasoline is spilled near a vehicle, the engine shall not be started until gasoline has thoroughly dissipated or been cleaned up.

d. Dispensing gasoline into portable containers not bearing a label of an approved testing laboratory and marked for gasoline use is prohibited. Portable containers used shall be of metal safety type construction. Portable containers shall remain on the ground when filling/fueling. Under no circumstances shall a portable container be filled/fueled while in the bed or trunk of a vehicle.

e. During filling operations, the gasoline hose nozzle must be kept in direct metallic contact with the tank or container to prevent formation of a static spark.

(1) Hoses shall be checked monthly with an ohmmeter to ensure electric ground continuity between gas pump and hose nozzle.

(2) Pumps with hoses found damaged, or with questionable continuity, shall be placed out of service until the hoses are replaced.

f. Caution should be followed when fueling motor powered, self-contained recreation vehicles as they may have pilot lights for refrigerator, heater or hot water tank.

h. In the event of an emergency shut off the electric power to all dispensing devices using the emergency shut off device.

i. The use of any device or item to hold a fuel dispensing nozzle in the open position to maintain the flow of fuel is prohibited.

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11. FUEL CARRYING VEHICLES

a. "No Smoking" signs shall be posted inside the cabs and "Smoking Prohibited within 100 Feet" shall be posted on the outside of all fuel carrying vehicles.

b. Fuel carrying vehicles, whether empty or full, shall not be parked inside of or within 100 feet of any structure. Tank trucks will be parked 25 feet from other vehicles.

c. All flammable liquid carrying vehicles are required to have at least two 30lb dry chemical extinguishers or two 10-lb multipurpose extinguishers.

d. Bulk fuel vehicles shall display placards according to current U.S. Department of Transportation regulations.

12. TANK TRUCKS AND EQUIPMENT. Fuel trucks having leaky or otherwise defective pumping equipment shall not be used and shall display placards to that effect.

a. Discharge valves for dispensing flammable and combustible liquids from outside drums shall be spring loaded and manually operated. These drums shall be equipped with UL approved flame arrestor bung vents. Blocking valves open is prohibited. Metal drip pans shall be placed under valves and cleaned regularly.

b. All dispensing of flammable liquids from tank trucks or from underground tanks shall be done by an approved pumping or water displacement system. The rule applies to containers of over 55-gallon capacity. Gasoline drums, when used as dispensers, shall be equipped with drum (barrel) pumps of approved types.

c. Caps or stoppers shall not be left out of drums, barrels, tanks, or other flammable liquid containers. This rule also applies to empty containers.

d. Empty flammable liquid containers shall not be stored or repaired until they have been thoroughly cleaned and tested for hazardous vapors. The fuel tanks of small gasoline engines shall be similarly cleaned before indoor storage.

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e. Faucets on drums shall not be used for dispensing flammable or combustible liquids.

### 13. AIRCRAFT REFUELING AND DEFUELING

a. Fuel truck crews shall be fully indoctrinated in safety procedures required to fuel an aircraft from a tank truck. Fuel truck personnel will receive orientation and on-the-job training in general fire and safety precautions.

b. Hot refueling aircraft presents safety hazards, which are not normally encountered in other refueling operations. Personnel who conduct hot refueling must have a thorough knowledge of all equipment they operate and know and observe all safety precautions. Hot pit crews shall consist of one qualified plane captain, one qualified nozzle operator, two qualified fire extinguisher operators and one refuel operator.

#### c. Defueling

(1) Defueling aircraft will be done outside of hangars and under controlled conditions similar to those required for fueling. When it is absolutely necessary to defuel aircraft in hangars, the fire department will be notified and the operation will be accomplished in accordance with their instructions.

(2) During defueling of aircraft, at least one 150lbs. HALON wheeled unit will be available and manned by the host/operating activity.

#### d. Fuel Spills

(1) Stop fueling activities immediately.

(2) Notify the fire department.