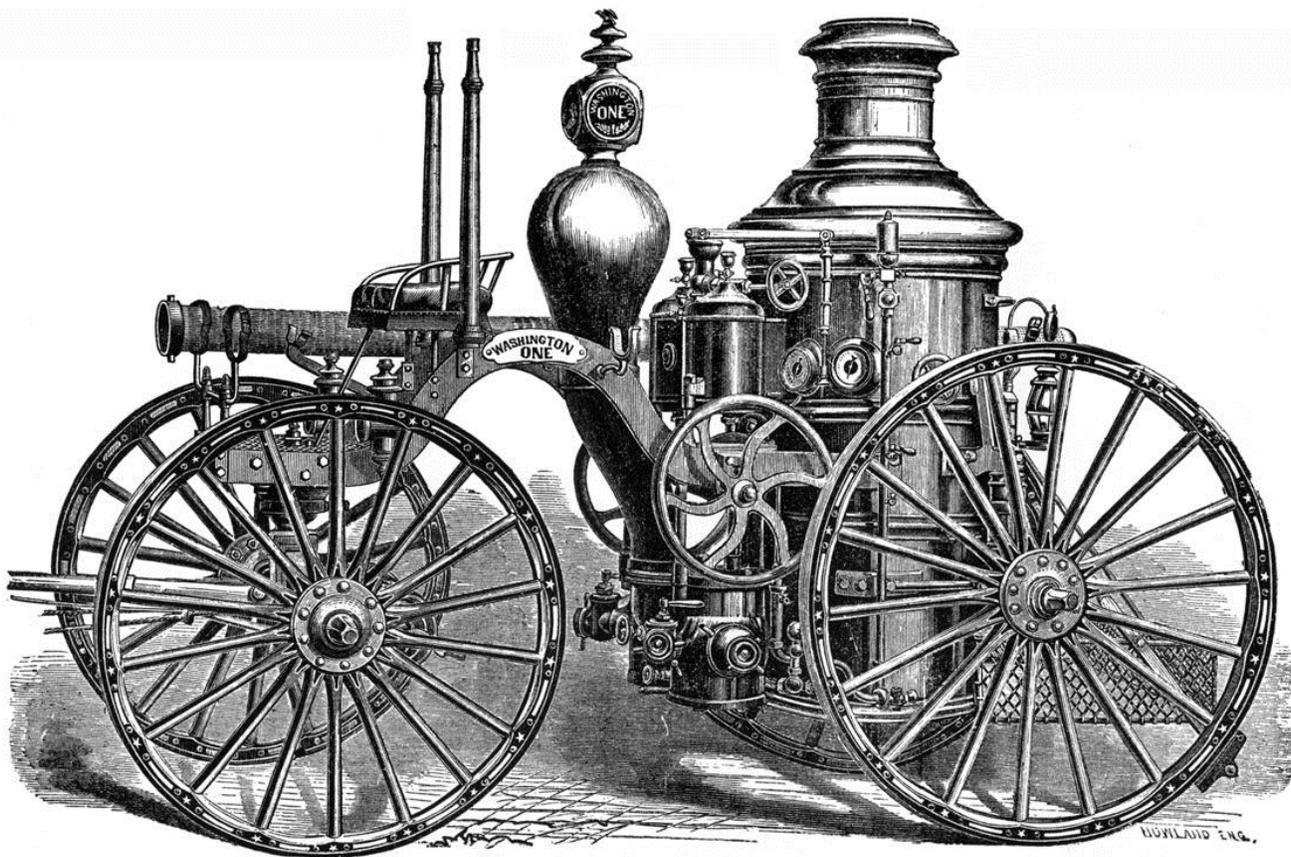


Gateway National Recreation Area Structural Fire Management Plan



Signatures

Developed by: _____ **Date:** _____
Structural Fire Chief

Reviewed by: _____ **Date:** _____
Regional Chief Structural Fire

Reviewed by: _____ **Date:** _____
Chief of Business Management

Reviewed by: _____ **Date:** _____
Chief of Facilities Management

Reviewed by: _____ **Date:** _____
Chief of Cultural Resources

Approved by: _____ **Date:** _____
Chief Ranger

Approved by: _____ **Date:** _____
Superintendent

Table of Contents

Table of Contents	ii
Introduction	1
Purpose	1
Park Facilities Covered	1
Description	1
Implementation	2
Structural Fire Protection Planning and Compliance	2
Authorities	3
1 Fire Safety Objectives	1-1
1.1 General.....	1-1
1.2 Life Safety	1-1
1.3 Preservation of Site Mission	1-2
1.4 Preservation and Protection of Collections	1-2
2 Terms Explained	2-1
2.1 Common National Park Service – Structural Fire Management Plan Terms	2-1
3 Responsibilities	3-1
3.1 Park Superintendent.....	3-1
3.2 Chief Ranger	3-1
3.3 Park Structural Fire Chief (PSFC).....	3-1
3.4 Park Chief Officer (Deputy Chief).....	3-2
3.5 Park Fire Prevention Officer.....	3-2
3.6 Park Fire Inspector	3-2
3.7 Engine Company Officer (Captain)	3-2
3.8 Driver/Operator.....	3-3
3.9 Certified Structural Firefighter	3-3
3.10 Law Enforcement Ranger Activities	3-3
3.11 Park Safety Officer.....	3-3
3.12 Other Park Positions.....	3-4
3.13 Supervisors at all Levels	3-4
3.14 Housing Fire Inspector.....	3-4
3.15 Park Structural Fire Management Responsibilities.....	3-5
4 Fire Prevention Inspection Procedures	4-1
4.1 Inspection Authorization.....	4-1
4.2 Report Distribution – Abatement Tracking	4-1
4.3 Identification of Hazards / Deficiencies Process.....	4-1
4.4 Hazards Identified.....	4-1
4.5 Housing Fire Inspections	4-2
4.6 Inspection Frequency	4-2
5 Fire Event Procedures	5-1
5.1 Responsible Personnel.....	5-1
5.2 Notification of Fire Department in New York Units	5-1
5.3 Notification of Fire Department in Sandy Hook	5-1
5.4 Building Evacuation Signal	5-2
5.5 Meeting Designation	5-2
5.6 Handicap Requirements	5-2

5.7	Standpipe Fire Hose Stations (Interior Hose Cabinets)	5-2
5.8	Procedures	5-2
6	Fire Prevention Training Requirements.....	6-1
6.1	Fire Prevention Training Requirements.....	6-1
6.2	Special Training	6-1
6.3	Training Contents	6-1
6.4	Fire Department Operations	6-1
7	Fire Drills	7-1
7.1	Fire Drill Frequency	7-1
7.2	Documentation	7-1
8	Exit Requirements.....	8-1
8.1	Responsibility	8-1
8.2	Exit Obstruction	8-1
8.3	Unlock Exit Requirement	8-1
8.4	Exit Illumination	8-1
8.5	Exterior Exit Locations	8-1
8.6	Storage under Exits	8-1
8.7	Blockage of Doors	8-1
8.8	Smoke Barrier Doors	8-1
8.9	Exit Door Maintenance	8-1
8.10	Building Evacuation Plan	8-1
9	Housekeeping.....	9-1
9.1	Housekeeping Practices	9-1
10	Electrical Installation and Equipment.....	10-1
10.1	Equipment Operation.....	10-1
10.2	Extension Cord Use.....	10-1
10.3	Appliance Usage	10-1
10.4	Electrical Cord Protection	10-1
10.5	Overloading	10-1
10.6	Flammable Liquid, Clearance of Light Fixtures	10-1
10.7	Coffee Makers	10-1
10.8	Fuses, Switches, and Other Electrical Components.....	10-1
10.9	Compliance with National Electric Code (NEC).....	10-2
11	Smoking Control	11-1
11.1	Smoking Policy	11-1
12	Wildland Urban Interface (WUI).....	12-1
12.1	Inspection Requirements	12-1
12.2	Vegetation Clearance	Error! Bookmark not defined.
13	Fire Extinguishers.....	13-1
13.1	Inspection Cycle	13-1
13.2	Installation Requirements	13-1
13.3	Location Requirements.....	13-1
13.4	Usage Requirements.....	13-1
13.5	Vehicle Requirements.....	13-1
13.6	Obsolete Types	13-2
13.7	Procurement and Replacement	13-2

13.8	Personnel Training.....	13-2
14	Fire Protection Systems	14-1
14.1	Blockage of System Equipment	14-1
14.2	Stored Material	14-1
14.3	Tampering with Equipment	14-1
14.4	Alterations	14-1
14.5	Exit Illumination	14-1
14.6	System Maintenance	14-1
14.7	New Installation(s)	14-1
15	Public Assembly Facility Requirements.....	15-1
15.1	Special Consideration.....	15-1
15.2	Occupancy Load.....	15-1
15.3	Established Procedures.....	15-1
15.4	Written Designation	15-1
15.5	Decoration Requirements	15-1
15.6	Restaurant Requirements	15-2
15.7	Kitchen Hood System Requirements	15-2
15.8	Requirements for Concessionaires	15-2
16	Heating and Cooking Appliances.....	16-1
16.1	Attendance Requirements	16-1
16.2	Open Flame Restrictions	16-1
16.3	Cleaning	16-1
16.4	Obstruction to Egress	16-1
16.5	Hot Plate Requirements.....	16-1
16.6	Listing Requirements	16-1
17	Open Flame Use and Fireplaces	17-1
17.1	Open Flame Policy	17-1
17.2	Restaurants	17-2
17.3	Additional Precautions	17-2
18	Welding, Cutting, Blazing, and Related Permits	18-1
18.1	RM-58 Requirements.....	18-1
18.2	Location of Work to be Performed	18-1
18.3	Requirements of the Hot Work at Location	18-1
18.4	Restrictions.....	18-1
18.5	Fire Watch Requirements	18-1
18.6	Fire Extinguisher Requirements.....	18-1
18.7	Weld Gases and Requirements	18-1
18.8	Requirement Application.....	18-2
18.9	Permits and Systems Requirement.....	18-2
18.10	Permit Procedures	18-2
18.11	Tar Kettles	18-2
18.12	Open Flames on Premises	18-2
19	Flammable/Combustible Liquids	19-1
19.1	Storage Requirements	19-1
20	Fire Hydrants and Water Supply	20-1
20.1	Requirements for Shutting off Water Supply	20-1
20.2	Connections to Fire Hydrants	20-1

20.3	Parking near Fire Hydrants	20-1
20.4	Damage Reporting.....	20-1
20.5	Snow Removal Requirements	20-1
20.6	Hydrant Inspection, Testing, and Maintenance	20-1
20.7	Hydrant Fire Flow Testing.....	20-1
21	Fireworks	21-1
21.1	Park Policy	21-1
22	Explosives & Unexploded Ordinance	22-1
22.1	Storage of Powders and Other Explosives.....	22-1
23	Compressed Gases.....	23-1
23.1	Separation of Stored Cylinders	23-1
23.2	Securing Requirements	23-1
23.3	Valve Protection	23-1
23.4	Cylinders and Arrestors	23-1
24	Vehicle Parking and Storage	24-1
24.1	Parking Restrictions at Hydrants.....	24-1
24.2	Parking Restrictions at Fuel Storage.....	24-1
24.3	Designated Building.....	24-1
24.4	Storage of Fuel Powered Equipment	24-1
24.5	Enforcement.....	24-1
25	Aircraft	25-1
25.1	Safety Procedures	25-1
25.2	Training	25-1
25.3	Fueling Designation.....	25-1
25.4	Fueling Process Areas Prohibited.....	25-1
25.5	Use of Electrical Extension Cords.....	25-1
25.6	Vehicle Parking.....	25-1
25.7	Ground Servicing and Static Grounding in Compliance with NFPA and OSHA.....	25-1
25.8	Portable Fire Extinguishers.....	25-1
26	Marine	26-1
26.1	Safety procedures.....	26-1
26.2	Training	26-1
26.3	Fueling designation.....	26-1
26.4	Fueling process areas prohibited	26-1
26.5	Use of electrical extension cords	26-1
26.6	Fueling fire extinguisher requirement.....	26-1
26.7	Watercraft requirement	26-1
26.8	Watercraft detection system requirements.....	26-1
27	Hazardous Materials Incident.....	27-1
27.1	Method of Containment	Error! Bookmark not defined.
27.2	Employee Solicitation	27-4
27.3	Visitor Solicitation	27-4
27.4	Use of Protective Gear	27-4
27.5	Initial Training Requirements	27-4
27.6	Certification Requirements.....	27-4
27.7	HAZMAT Clean-up Disposal.....	27-5

28 Fire Apparatus Right of Way	28-1
28.1 Obstruction of Fire Lanes.....	28-1
28.2 Passing Requirements.....	28-1
28.3 Yield to Emergency Vehicles	28-1
28.4 Emergency Vehicle Driver Compliance.....	28-1
28.5 Fire Hose.....	28-1
28.6 Primary and Secondary Routes	28-1
28.7 Alternate Routes.....	28-1
28.8 MOU/Mutual Aid Requirement	28-1
29 Contract Management.....	29-1
29.1 Pre-construction Meetings	29-1
29.2 Construction Safety Policies	29-1
29.3 New Construction Policy.....	29-1
29.4 System Requirements per RM-58.....	29-1
29.5 Change of Occupancy	29-1
29.6 Demolition Work	29-1
29.7 Final Construction Documents.....	29-2
30 Contractors and Concessionaires	30-1
30.1 Procedures.....	30-1
30.2 Concessions Contracts.....	30-1
31 Employee Housing.....	31-1
31.1 Occupant Responsibilities.....	31-1
31.2 Inspection Requirements for Detectors	31-1
31.3 Inspection Requirements for Extinguishers.....	31-1
32 Self-Help Construction Projects.....	32-1
32.1 Coordination Requirements	32-1
32.2 Electrical Work Requirements.....	32-1
32.3 Prevention Criteria.....	32-1
32.4 New and Existing Fire Protection Systems	32-1
32.5 Violations.....	32-1
33 Post Incident Reviews	33-1
33.1 Post Incident Review Members.....	33-1
33.2 Investigation Requirements	33-2
33.3 Resources	33-4
33.4 Serious Accident Investigation.....	33-4
34 Bulk Fuel Storage and Fueling Stations	34-1
34.1 Inspection, Testing, and Maintenance.....	34-1
34.2 Smoking	34-1
34.3 Fire Protection	34-1
34.4 Housekeeping.....	34-1
35 35-1	
Sandy Hook Unit	35-1
Fire Department Operations.....	35-1
35.1 Park Fire Department Organizational Requirements.....	35-1
35.2 Engine Company Training	35-1
35.3 Staffing Plan	35-2

35.4	Fire Department Standard Operating Guidelines	35-2
35.5	Personal Protective Equipment.....	35-3
35.6	Emergency Operations	35-3
35.7	Incident Management	35-3
35.8	Outside Agency Response	35-4
35.9	New York Units.....	35-4
35.10	Sandy Hook Fire Dispatch Policy.....	35-4
36	Appendices.....	6
36.1	NPS Annual Fire Prevention Inspection Form.....	6
	Gateway National Recreation Area	9
	Gateway National Recreation Area	10
	Tent Permits & Inspection Guidelines	36-1
36.2	Fire Hazard Report	36-3
36.3	Facility Fire Event Procedures and Fire Prevention Checklist	36-4
36.4	Hot Work Permit	36-8
36.5	29 CFR 1910.38 Emergency Action Plan Requirements.....	36-11
36.6	DOI Departmental Manual – Smoking in Public Buildings.....	36-12
36.7	29 CFR 1910.157 – Portable fire extinguishers.....	36-13
36.8	29 CFR 1910.252(a) – Welding, Cutting, and Brazing – General Requirements	36-16
36.9	29 CFR 1910.134(g)(4) Respiratory Protection – Procedures for Interior Structural Firefighting	36-18
36.10	NFPA 1 – National Fire Code; 10.14 Combustible Vegetation	36-19

Introduction

Historically, structural fires have caused significant damage to National Park Service (NPS) resources. These fires have also resulted in death and numerous injuries. Effective structural fire management is essential to the protection of human life, property, and irreplaceable cultural resources.

The Structural Fire Management Plan establishes the policies and procedures that manage Gateway National Recreation Area's fire protection program. The purpose of this plan is to prevent fires and reduce loss from fire. It provides guidance to assist the Superintendents and Park staff with the protection of people, property, and resources under their control.

Life safety is paramount in all NPS structural fire management activities. Furthermore, the National Park Service is committed to protecting all resources entrusted to its care and will focus on preventing fires and minimizing the damage resulting from structural fires in accordance with Director's Order and Reference Manual #58 (DO-58/RM-58), Director's Order and Reference Manual #50B (DO/RM-50B) Occupational Health and Safety Program, NPS Management Policies, Occupational Health and Safety Administration (OHSA) regulations, and National Fire Protection Association (NFPA) standards¹, where required. It applies to all NPS and concession personnel assigned or attached to units in the National Park Service, including all contractors, concessionaires, tenant organizations, and housing residents.

Purpose

The purpose of this Structural Fire Management Plan (SFMP) shall be to set forth the policies and procedures necessary to establish and implement a structural fire prevention and protection program at Gateway National Recreation Area (Park or GATE).

Structural fire management is defined as the protection of people, content, structures, resources, and the landscape surrounding the structure from the effects of fire. At the park level, a fully implemented SFMP is the most effective way to achieve structural fire management goals. This SFMP shall establish written fire prevention and protection requirements that:

- Meet the Park's needs.
- Minimize accidental fires and related fire losses.
- Provide for prompt detection, reporting, and control, extinguishment, and investigation of fires.
- Establish abatement procedures.
- Provide for the safe evacuation of building occupants.

Park Facilities Covered

The requirements of this Structural Fire Management Plan cover all Gateway National Recreation Area facilities, divisions, and personnel within Park boundaries.

Description

Gateway National Recreation Area covers 26,000 acres in two states and is visited by an average of 2.2 million persons per year. There are approximately 700 structures – NPS and

¹ Directors Order #58 (IV Operational Policies and Procedures, H) With exceptions as specified in Reference Manual #58

owned by other state, local and federal entities—More than 26,000 acres of marshes, wildlife sanctuaries and recreational facilities in New York and New Jersey. The park has miles of sandy beaches; indoor and outdoor classrooms; picnicking and camping areas; as well as historic structures, old military installations, airfields, a lighthouse, adjacent waters around New York Harbor. Gateway NRA offers urban residents in two states a wide range of recreational opportunities and educational perspectives throughout the year.

Many of the Park's structures have built-in fire protection systems that range from single early warning devices such as smoke detectors to monitored sprinkler systems. However, there are a significant number of historic structures that do not have sprinklers or early warning systems. The lack of built-in fire protection, including central station early warning and sprinkler systems raises the risk of catastrophic fire in historical and cultural structural resources.

The Park administers a structural fire department that is staffed by a cadre of paid-on-call personnel from all divisions within the SAHO unit. A Park Structural Fire Chief administers the structural fire program for all of the Park's developed areas. The New York City units receive fire protection from the New York City Fire Department.

Implementation

When signed by the Superintendent of Gateway National Recreation Area, the following structural fire management plan becomes the Park's policy and procedure for the prevention, mitigation, and suppression of structural fire.

Upon SFMP implementation, all division chiefs and other appropriate personnel will be briefed on its contents and copies will be made available to all Park personnel. It is the responsibility of the Park Structural Fire Chief (PSFC) to review the SFMP annually. The SFMP will also be reviewed after significant changes to Park infrastructure (pipelines and utilities), after the Park has acquired new structures or has released structures to another agency or organization, and after a major fire incident.

With implementation, the Park shall engage in the execution of the SFMP to the fullest extent possible to include fire prevention activities, inspections, and training as outlined in the plan, and the establishment of subsidiary standard operating procedures or guidelines (SOPs, SOGs). The Park Structural Fire Chief will secure the services of the Regional Structural Fire Manager² (RSFM), as needed, to evaluate the Park's fire prevention and protection program.

Structural Fire Protection Planning and Compliance

Life safety is, and will at all times be, the first priority in all NPS structural fire management activities. Furthermore, the NPS and Gateway National Recreation Area are committed to protecting all resources entrusted to their care and will focus on preventing fires and minimizing the damage resulting from structural fires in accordance with Director's Order #58 (DO-58).

This SFMP was written with the intentions, recommendations, and requirements of DO/RM-58, DO/RM-36,³ codes and standards developed by the NFPA, OSHA codes and regulations, and Park-level administrative procedures and policies.

² Directors Order #58 (IV Operational Policies and Procedures, G) Formerly known as Regional Structural Fire Manager Officer.

³ Directors Order and Reference Manual 36 – Housing Management

Authorities

Authority has been granted to the Park Superintendent to appoint a Park Structural Fire Chief and establish a structural fire management plan.⁴ Said plan shall be reviewed by the Northeast Region authority having jurisdiction (AHJ)⁵ prior to implementation and approval by the Park Chief Ranger and Park Superintendent. The Park Superintendent has the full authority to manage and implement plan components.

⁴ National Park Service Organic Act (16 U.S.C. §1 through 4); Department of the Interior Manual (Part 245); NPS Director's Order #58 (III. Management Policies, 9.1.8 Structural Fire Protection and Suppression), (IV. Operational Policies and Procedures, F), and (V. Program Requirements, A. Planning, 1).

⁵ Directors Order #58 (IV. Operational Policies and Procedures, J. "Regional directors are hereby designated as the Authority Having Jurisdiction (AHJ), as defined in NFPA 1, within their respective regions.") The functions of the AHJ have been delegated to the Regional Structural Fire Manager.

1 Fire Safety Objectives

1.1 General

Fire safety objectives provide targets as a means to measure success. Fire safety objectives should address the broad issues of life safety and the preservation of site mission, collections, and structures.

It is essential that fires be prevented in order to protect life and property as well as the irreplaceable cultural resources within Gateway National Recreation Area.

The following goals have been established for GATE:

- Life safety
- Preservation of site mission
- Preservation and protection of collections

The Park's fire protection objectives shall be met through the implementation of the following activities:

- Building design
- Building construction
- Installation and maintenance of fire detection, notification, and suppression systems
- Regular fire and life safety inspections of buildings and fire protection systems
- Developing collections management and protection plans
- Fire safety training and education
- Establishing and maintaining cooperative fire agreements
- Providing an effective response (suppression) force

1.2 Life Safety

Life safety shall always be the first priority and goal. The following objectives deal with limiting the probability of death or injury to visitors, staff, and firefighters. The Park's life safety objectives are to:

- Ensure outstanding life safety deficiencies have been mitigated, corrected, or addressed. Part of this process is to generate, complete, and close Facilities Management Software System (FMSS) work orders specific to facility fire and life safety deficiencies. The Park Structural Fire Chief (PSFC) is responsible for working with division heads and facilities to ensure work orders are generated and corrective actions are implemented.
- Ensure outstanding fire code deficiencies have been mitigated, corrected, or addressed. The PSFC shall ensure division heads are generating Project Management Information System (PMIS) requests for outstanding fire and life safety capital improvements and the installation of fire protection systems.
- Ensure existing fire suppression and detection and notification and life safety systems are active and code-compliant, and that they are being inspected, tested, and maintained according to applicable NFPA and NPS standards. The PSFC shall ensure that Park-wide fire protection system (sprinkler and fire alarm) inspection, testing, and maintenance contracts are in place.

- Implement an active fire safety awareness program to educate Park and concessionaire employees, their families, and the public.
- Inspect all structures, in accordance with RM-58, for fire and life safety deficiencies at least annually. The PSFC shall ensure that annual fire and life safety inspections are being performed and documented, and that deficiencies are reported to maintenance for corrective action.
- Maintain a properly equipped and trained structural fire department.

1.3 Preservation of Site Mission

The following objectives focus on limiting the probability and extent of damage to assets which are critical to the Park's mission. Such assets include equipment, functions, documents, resources, and structures.

The ability to preserve and protect structures is critical to the implementation of an effective structural fire management program. To this end, the following objectives support the Park's site mission.

- Fire detection and suppression systems shall be reviewed for installation in all new and existing structures in compliance with NFPA.
- New and existing fire detection and suppression systems shall be monitored by a certified central station.
- Fire inspections shall be conducted to identify real and potential risks to structures (i.e.: inadequate inspection, testing, and maintenance of fire detection, notification, and suppression systems, a lack of annual fire and life safety inspections, and activities or operations inappropriate for a given facility).
- Pre-fire plans shall be maintained for all commercial occupancies and shall be reviewed and/or revised on an annual basis. Each pre-fire plan shall identify potential threats and outline an appropriate plan of attack for the control, suppression, and extinguishment of fires. The book of pre-fire plans shall be included in the Sandy Hook Fire Department (SHFR) training plan and shared with the Park's mutual aid fire districts.
- Post-fire incident facility stabilization procedures shall be developed that will validate facility soundness and mitigate further damage from wind, rain, extreme temperatures, smoke, heat, flame, fire crew salvage, and overhaul operations.

1.4 Preservation and Protection of Collections

Fire protection objectives will focus on limiting the probability of destruction or damage to collections and records by flame, heat, smoke and corrosive byproducts and suppression water during a fire. Collections include historic artifacts, archival materials, photographs, natural history specimens and archeological collections displayed or stored on site.

Fire detection and suppression systems shall be installed in all facilities used for the storage or exhibition of museum property.

The Park's Curator will develop a preservation and protection plan that addresses the probability of post-fire damage during salvage and overhaul, and from mold, mildew, moisture, exposure, and temperature changes. The plan shall address the potential for protection in place as well as removal and relocation pre-fire, during a fire and post fire. The plan shall support collections management policies, other Park emergency operations plans, and:

- Include selecting systems appropriate to the nature of museum property in the space, and to the structure in which it is housed.

- Make spaces housing museum property fire-resistant to the extent possible given the nature of the structure.
- Store museum property records in an appropriate fire and burglary-resistant container or vault, and lock it when not in use.
- Address the needs of museum property in preventing, detecting, and suppressing fire in a fire plan.
- Avoid storing flammable liquids in the museum property storage area.

Curatorial and preservation personnel are responsible for salvaging and restoring damaged and undamaged collections in accordance with DO/RM-28⁶ and NFPA 909.⁷ A plan shall be developed for recovery of collections after a fire or other disaster. Curatorial recovery planning includes the development of action plans that:

- Set priorities for salvage of collections
- Coordinates salvage procedures with facility management staff for critical collections
- Utilizes salvage covers and other protective devices
- Prepares for the removal of collections from fire areas and an inventory of materials moved
- Identifies the location of refrigerated vans and warehousing facilities to transport or store fire or water damaged items.
- Identifies responsible organizations with the capacity and ability to restore collections. Capacity should be based on the largest anticipated fire area.
- Lists other curatorial facilities and professionals with the capacity to assist.

The PSFC shall be involved in the planning process.

⁶ Cultural Resource Management Guideline.

⁷ National Fire Protection Association, NFPA 909 - Code for the Protection of Cultural Resource Properties - Museums, Libraries, and Places of Worship, 2010.

2 Terms Explained

2.1 Common National Park Service – Structural Fire Management Plan Terms

Authority Having Jurisdiction (AHJ): The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure relative to fire protection.

Emergency Action Plan: Designated actions that employers and employees must take to ensure safety from fire and other emergencies within a facility. Regulations for emergency action plans are covered in OSHA Standard 29 CFR 1910.38.

Facility Manager: Responsible for managing fire-safe facilities and equipment under their jurisdiction.

Fire Brigade: An industrial unit trained to respond to and mitigate fires and emergencies in the industrial setting.

Fire Department: A group of people organized to engage in rescue, fire suppression, and related activities.

FDNY: Fire Department City of New York

Fire Hazard: A fire hazard is any situation, process, material, or condition that, on the basis of applicable data, can cause a fire or explosion or provide a ready fuel supply to augment the spread or intensity of the fire or explosion and that poses a threat to life or property.

Fire Deficiency: A fire deficiency requires a subjective analysis to determine the priority required for the corrective action. They are prioritized according to their seriousness and assigned a code. These codes are used to input the most serious deficiencies into the Park's Facilities Management Software System (FMSS) for identification and correction.

Fire Prevention: Measures directed at reducing the likelihood of fire and/or avoiding the inception of fire.

Fire Prevention Plan: This plan describes how to prevent fires in a facility. Included are employer and employee responsibilities in preventing fires, descriptions of the major worksite fire hazards, requirements for maintaining equipment to prevent or control fire, steps in controlling fuel source hazards, housekeeping controls to prevent hazardous accumulations of combustible and flammable materials, waste and residues, employee training on hazards of materials and processes, and practices for maintenance of heat producing equipment and systems. Regulations for fire prevention plans are covered in OSHA Standard 29 CFR 1910.38.

Fire Protection: All measures taken to reduce the burden of fire on quality of life. Fire protection includes all aspects of fire protection engineering, fire prevention, fire suppression, hazardous materials response, and related rescue operations.

Fire Protection Condition Assessment (FPCA): A complete survey of park buildings, conducted by a fire protection engineer or other qualified person. The FPCA process identifies fire life safety deficiencies related to the structures.

Fire Suppression: All measures involved in controlling and extinguishing fires. Fire suppression shall include all activities performed at the scene of a fire incident and/or training exercise(s) that expose fire department members to the dangers of heat, flame, smoke, or other products of combustion, explosion, or structural collapse.

Hazard Mitigation: Activities taken to isolate eliminate, or reduce the degree of risk to life and property from hazards, either before, during, or after incident.

Fire Door: An internal door installed in a building to separate sections or certain areas, to prevent damage by heat or smoke in the event of a fire.

Interim Controls: Temporary measures pending permanent corrective action.

Memorandum of Agreement / Mutual Aid Agreement / Memorandum of Understanding: A pre-arranged agreement developed between two or more entities to render assistance to the parties of the agreement. Consult Director's Orders #20 for further explanation of the terms and conditions of each.

National Fire Protection Association (NFPA): Publishes the National Fire Codes that serve as the standard for NPS fire protection and prevention programs.

Occupancy: Establishes purpose of the structure. NFPA 101⁸ provides guidance for defining the various usages. The established occupancy directs required fire protection for the specified usage.

Park Structural Fire Chief: Found in parks that maintain their own fire engine company(ies). This person must have a broad base of structural fire prevention and response experience. The position is responsible for the development of fire prevention and response programs that improve and expand the park's structural fire program.

Park Chief Officer: Found in parks with fire engine companies. This person serves as acting Park Structural Fire Chief whenever the Chief is absent from the park. They must have many of the same skills as the Park Fire Chief, but may have less experience in some areas.

Park Fire Prevention Officer: Found in parks with significant structural fire risk. This position is responsible for structural fire inspections, code enforcement, and life safety education programs.

Plan Review: Review of proposed plan(s) of a building, or portion of a building, for fire protection system, fire assembly, or equipment. The plan can include specifications, cut sheets, and other engineering data. The term includes sketches, site plans, floor plans, shop drawings, and blueprints. Reviews are done by fire protection engineers, fire protection specialists, or state or local fire marshal's office; however, this must be coordinated with the Regional Structural Fire Manager.

⁸ NFPA 101: Life Safety Code, 2009, National Fire Protection Association, Quincy, MA.

Pre-fire Plan: Advance planning of firefighting operations at a particular location, taking into account all factors that will influence firefighting tactics. A standard form used to outline fire protection features and emergency response goals at a given facility and carried aboard responding apparatus.

Program Review: A process conducted by the Superintendent with guidance from the Regional Structural Fire Manager and other subject matter experts. It is generally a precursor to writing a structural fire management plan.

Standard Operating Procedures / Guidelines (SOPs or SOGs): These written organizational directives establish or prescribe specific operational or administrative methods to be followed routinely, or provide guidance for the performance of designated operations or actions; in some jurisdictions also known as standard operating guidelines.

Structural Fire Management Plan (SFMP): This plan describes the measures taken for fire prevention, preparedness, and response and recovery actions pertaining to a park service unit. Superintendents are required to develop a SFMP and submit a copy to the Regional Structural Fire Manager for review.

3 Responsibilities

The following positions have responsibility for implementation of the Structural Fire Management Plan at Gateway National Recreation Area.

3.1 Park Superintendent

The Superintendent shall have overall responsibility for the implementation and management of the Park structural fire management program and approval of the Park SFMP.

3.2 Chief Ranger

The Superintendent delegates responsibility and oversight of the Park structural fire management program to the Chief Ranger. The Chief Ranger is responsible for addressing structural fire program issues at the management team level and has approval authority for the Structural Fire Department's standard operating guidelines and directives.

3.3 Park Structural Fire Chief (PSFC)

The PSFC is responsible for monitoring or fulfilling the requirements of DO-58, RM-58, and implementing the Park's SFMP. He/she will develop programs that improve and expand the Park's structural fire program, building workable partnerships within the Park and with members of the larger fire service community, and ensure that mutual aid and cooperative response programs are developed. The PSFC is also responsible for the leadership, development, counseling, and training of the Park's fire department members.

The PSFC develops and administers an annual budget, revenue sources, and funding mechanisms that reflect the unit's needs, organizational goals, and budget guidelines.

The PSFC will administer the Park's fire prevention and response program to ensure:

- Annual structure fire safety inspections are conducted.
- Inspection, testing, and maintenance of fire protection and life safety systems and equipment are conducted.
- Building/facility emergency evacuation plans and procedures are implemented.
- Emergency response plan is implemented.
- Fire department access is provided.
- Fire prevention education and training is conducted.
- Training, qualification, and certification of all Park structural firefighters comply with RM-58.
- All Park engine company operations comply with RM-58.
- Required fire drills are conducted.
- Plans for building construction and alterations to existing buildings are reviewed by the Regional Authority Having Jurisdiction (AHJ).
- Plans for installation and modification of fire protection systems are reviewed by the Regional AHJ.
- Fire safety is provided during building construction, alterations, and demolition.
- Fire cause and origin investigations are conducted.

The PSFC will ensure fire protection equipment is installed in compliance with applicable codes and standards. Deficiencies are documented and reported to the Regional AHJ according to NPS policies.

3.4 Park Chief Officer (Deputy Chief)

The Park Chief Officer (PCO) serves as acting Park Structural Fire Chief whenever the Chief is absent from the park. The responsibilities of the PCO are similar same as the PSFC, except that the PCO may have less experience in some areas. The Chief Officer position at GATE is an operations battalion chief that is responsible for emergency operations in the absence of the PSFC.

3.5 Park Fire Prevention Officer (2 vacant Positions)

This position held for future funding.

The Park Fire Prevention Officer (PFPO) must be trained to the NFPA Fire Inspector II standard.⁹ The PFPO must be capable of evaluating inspection reports, forms, and checklists for completeness and accuracy. This person must be familiar with all applicable codes, agency standards, policies, and procedures. They must ensure that the information contained in the report forms and checklists are concise and correct and that the information addresses all pertinent issues. Responsibilities include being able to review proposed codes, ordinances, and other legislation from draft documents and documenting their potential impact on fire safety and code enforcement activities in the park. They must also have the ability to implement or enforce a permitting process and/or evaluate consequences of improper enforcement. The Fire Prevention Officer is responsible for implementing and managing the park's fire prevention and life safety education programs.

3.6 Park Fire Inspector

This position held for future funding.

This position must be capable of performing building and fire code-related research and clearly express code requirements, both verbally and in writing. This includes the ability to interpret codes, recognize hazardous conditions, conduct code enforcement inspections, and make enforcement-related recommendations in areas such as building construction, occupancy, fire protection, and hazardous environments. The position requires a basic understanding of fire behavior, flame spread, smoke development, ratings of contents, interior finishes, building construction elements, decorations and decorative materials, furnishings, and safe housekeeping practices.

3.7 Engine Company Officer (Captain)

The Engine Company Officer (ECO) must be certified as an NFPA Fire Officer I.¹⁰ The ECO, in addition to the duties and requirements of the Certified Structural Firefighter and the driver/operator, is responsible for directing Park fire department members during hostile fire or rescue operations. The ECO must be capable of rapidly developing tactics and strategies during high stress operations that will safely mitigate an emergency situation. The ECO must be able to make personnel assignments that maximize efficiency, as well as evaluate and direct engine

⁹ NFPA 1031 Standard for Professional Qualifications for Fire Inspector and Plan Examiner, 2009, National Fire Protection Association, Quincy, MA.

¹⁰ NFPA 1021 Standard for Fire Officer Professional Qualifications, 2009, National Fire Protection Association, Quincy, MA.

company members and assist with fire department member development and training. Engine company officers can also be qualified to conduct live fire training as approved by the National Structure Fire Program.

3.8 Driver/Operator

In addition to the duties of the Certified Structural Firefighter, the Driver/Operator (or Apparatus Operator) must be certified as an NFPA Fire Apparatus Driver/Operator (AO).¹¹ The AO must obtain the appropriate type of driver's license required by their state licensing authority for the type of vehicle they will operate. It is a requirement of RM-58 that each AO obtain a commercial driver's license (CDL). The position also requires the ability to keep structure fire apparatus in good working order by performing routine inspection, maintenance, and service. The systems include, but are not limited to:

- Batteries
- General condition
- Valves
- Steering systems
- Transmissions
- Electrical systems
- Tires
- Power Take-off
- On-board tools
- Coolant systems
- Differentials
- Fuel and filters
- Brake systems
- Pumps
- Specialized equipment
- Belts and hoses
- Gauges
- Hydraulic fluids

3.9 Certified Structural Firefighter

The Certified Structural Firefighter must be trained to the NFPA Fire Fighter I standard.¹² The firefighter responds to fire department emergencies and on arrival to an emergency is assigned to an operational unit. The firefighter performs firefighting and other emergency-related duties in conformance with applicable NFPA and other fire and safety regulations. The firefighter must understand principles of:

- Fire streams
- The incident command system
- Fire dynamics
- Building construction
- Ventilation
- Nozzle types and their design, operation, pressure effects, and flow capabilities
- Dangerous building conditions created by fire
- Exposure protection
- The role of the "backup team" in fire attack situations
- Techniques for exposing hidden fires

3.10 Law Enforcement Ranger Activities

Law enforcement rangers may become a member of the SHFR. Rangers that are not a member of the fire department may assist the senior fire official in charge at fire scenes. Rangers secure the scene during and after the emergency if further investigation is warranted.

3.11 Park Safety Officer

The Park Safety Officer is responsible for identifying all requirements of the Occupational Safety and Health Administration (OSHA) affecting the structural fire management program. The Park

¹¹ NFPA 1002 Standard for Fire Apparatus Driver/Operator Professional Qualifications, 2009, National Fire Protection Association, Quincy, MA.

¹² NFPA 1001 Standard for Fire Fighter Professional Qualifications, 2008, National Fire Protection Association, Quincy, MA.

Safety Officer serves as advisor to PSFC on occupational safety and health issues. The PSO will provide training and assist in conducting inspections in all units of GATE.

The Safety Officer assists the PSFC in providing training which complies with OSHA standards, and provides data and reports of unsafe conditions related to structural fire safety.

3.12 Other Park Positions

Refer to RM-58 for definitions of other Park positions.

3.13 Supervisors at all Levels

Supervisors are responsible for the following and enforcing fire prevention activities that include:

- Informing their staff of established procedures and instructions that is in compliance with the Park's SFMP.
- Enforcing fire prevention practices in their work areas.
- Arranging access to locked and secured areas for the PSFC, or fire inspector, to perform scheduled fire prevention inspections.

Senior Supervisors – Senior supervisors are responsible for the following fire prevention activities within their facility. When multiple senior supervisors reside in the same facility, the Park Structural Fire Chief will appoint one supervisor as the person responsible. Responsibilities include:

- The development and revision of an Emergency Action Plan (Fire Event Procedure) for the facility in accordance with 29 CFR 1910.38, 1910.39, and NFPA 101.¹³ (See Appendix, 36.3 Facility Fire Event Procedures and Fire Prevention Checklist.)
- An annual general safety inspection, more frequently if indicated by hazardous conditions, to ensure compliance with 29 CFR 1960.25(c).
- A fire prevention orientation of assigned workers, custodians, and supervisors. A workplace survey to ensure that all work areas are left in a fire-safe condition at the end of each day (coffee pots, heaters, fans, etc. turned off).
- The identification of a person(s) and supervisor responsible for fire prevention inspections and practices in facilities, rooms, or areas which are under lock and key.
- The maintenance of exit and passageway areas to ensure that both are kept clear of storage or obstruction and to ensure exit doors are not locked during occupied hours.
- Monthly fire extinguisher visual inspection.
- Periodic fire (building evacuation) drills.
- Ensuring exits are unlocked, clear of obstructions, illuminated exit signs are operational.
- Ensuring workplace is kept free of trash accumulation and that flammable liquids are properly stored.
- Electrical equipment is used for its intended purpose and extension cords are the proper size.
- Heating and cooking appliances are used properly and turned off after use and after work hours.

3.14 Housing Fire Inspector

This position has not been budgeted at GATE.

¹³ National Fire Protection Association, NFPA 101: Life Safety Code, 2009.

3.15 Park Structural Fire Management Responsibilities

Structural fire management responsibilities are assigned to the following Park personnel and Divisions:

- **Superintendent**
 - The development, maintenance, and adoption of Park-wide structural fire protection policies and procedures
 - Directs and delegates implementation of the Park's structural fire protection policies through the Chief Ranger and other Park Division Chiefs
 - Develops and maintains the Park Compendium, outlining transportation access, road closures, and fire apparatus access and restrictions
- **Chief Ranger**
 - Directs the implementation of the structural fire management program
 - Approves the structural fire department standard operating guidelines
- **Park Structural Fire Chief**
 - Recommends revisions to the Park's structural fire protection policies, procedures, and guidelines
 - Organizes and manages the Park's structural fire department operations
 - Facilitates the completion of annual fire prevention inspections on NPS structures
 - Reviews plans for building construction and fire protection systems in new and existing structures and coordinates with the Regional Structural Fire Manager
 - Coordinates requests for assistance from the Regional Structural Fire Manager
 - Oversees hazardous materials response
 - Conducts fire hydrant flow testing
 - Manages inspection, testing, and maintenance (ITM) of all built in fire protection systems
 - Manages and maintains portable fire extinguisher ITM program
 - Manages hot work policy and permits
 - Manages housing fire safety to include annual fire safety inspections
 - Oversees self-help construction projects
 - Conducts fire hydrant and water supply ITM
 - Manages and maintains bulk fuel storage, fueling stations, and compressed gas fire safety programs and systems
 - Coordinates wildland urban interface risk reduction (vegetation) program
 - Oversees hazardous materials response
 - Manages inspection, testing, and maintenance (ITM) of all built in fire protection systems
 - Manages and maintains portable fire extinguisher ITM program
 - Manages hot work policy and permits
 - Manages housing fire safety to include annual fire safety inspections
 - Conducts fire hydrant and water supply ITM
 - Manages and maintains bulk fuel storage, fueling stations, and compressed gas fire safety programs and systems
 - Coordinates wildland urban interface risk reduction (vegetation) program
 - Provides or coordinates employee fire prevention and fire extinguisher training
 - Ensures that facility emergency plans, exit requirements, and fire event procedures are properly prepared and fire drills are conducted in commercial structures

- Park Safety Officer
 - The Park Safety Officer is responsible for identifying all requirements of the Occupational Safety and Health Administration (OSHA) affecting the structural fire management program. The Park
- Other Division Chiefs
 - Implement Park policies regarding facility safety, smoking, housekeeping, cooking, open flame use, public assemblies, facility egress, and concessions and contract management.

4 Fire Prevention Inspection Procedures

4.1 Inspection Authorization

The Park's Structural Fire Chief, or authorized fire inspector, shall perform scheduled and unscheduled inspections of all facilities. Fire hazards and/or deficiencies identified during an inspection are recorded on the NPS Fire Inspection Form (see Appendix 36.1).

4.2 Report Distribution – Abatement Tracking

A copy of the facility inspection report produced by the PSFC, or designee, shall be sent to the appropriate person in Facilities Management and the HAPA work center for corrective action. He/she is required to review and sign the form after corrective actions have been taken and return it to the Park Structural Fire Chief by the due date. Failure to take action to eliminate hazardous conditions results in the report being forwarded to the Superintendent or the Regional Structural Fire Manager for action.

A copy of the residential housing inspection report produced by the Park Housing Officer, or designee, shall be sent to the PSFC for review. The PSFC is required to review and sign the form, and ensure that corrective actions have been taken. Failure to take action to eliminate hazardous conditions results in the report being forwarded to the Superintendent or the Regional Structural Fire Manager for action.

4.3 Identification of Hazards / Deficiencies Process

If hazards / deficiencies are identified in a facility, the following process will be followed to correct or abate said hazard:

- The hazard is identified by Park personnel (See Appendix 36.2) or during an annual inspection.
- The hazard is documented on the NPS Fire Inspection Form.
- If the hazard is:
 - Not an immediate life safety issue, ten working days (two weeks) will be allowed for correction of the hazard.
 - An immediate life safety issue, the hazard will be corrected immediately. If the hazard/deficiency cannot be corrected immediately, the Park Structural Fire Chief or Regional Structural Fire Manager may take interim control measures to reduce the risk to an acceptable level.
- An FMSS work request is submitted for correction of the hazard / deficiency.
- The hazard / deficiency is corrected and logged in FMSS, the correction is noted on the inspection report, and the inspection report is signed and returned to the Park Structural Fire Chief.
- If the hazard is not corrected, a report is forwarded to the Park Superintendent or the Regional Structural Fire Manager for action.
- All deficiencies shall be tracked within Park tracking systems (FMSS or other methodology) until a NPS national database is implemented.

4.4 Hazards Identified

When no hazard/deficiencies are found, or are corrected on the spot, the NPS Fire Inspection Form is used to document the inspection. This form (Appendix 36.1) is maintained by the Park Structural Fire Chief. No other actions are required.

4.5 Housing Fire Inspections

The Facilities Management Division shall be responsible for housing fire inspections in one and two family dwellings. Per the NPS Housing Management Plan, Chapter 5; Part 1, NPS family housing (to include dormitories) shall be inspected annually. The PSFC, along with the Park Housing Officer, should ensure that a structural fire and life safety component of the annual inspection exists. This will allow for the evaluation of the existence, condition, and proper placement of fire extinguishers and smoke detectors and will allow for the identification of existing fire and life safety deficiencies.

The inspection will be documented on the NPS Fire Prevention Inspection Form (Appendix 36.1) and reported on the Inspection database. Deficiencies shall be reported to the resident of record, who is responsible for contacting Facilities Management and having the deficiencies corrected. The inspection results are maintained by the Park Housing Officer and Park Facility Manager.

4.6 Inspection Frequency

All Park structures shall receive a fire safety inspection on the following schedule:

- Annual:
 - Single and multi-family residential, apartments, and dormitories
 - Single story transient lodging facilities with built-in fire protection systems monitored by a certified central station
 - Multi-storied transient lodging facilities with fire sprinkler systems monitored by a certified central station
 - Commercial facilities with built-in fire protection systems monitored by a certified central station
- Twice annually
 - Multi-story transient lodging facilities without fire sprinkler systems
 - Historical structures except one and two unit residential
 - Any lodging or commercial facility with limited or no built-in fire protection system or that has a system that is not monitored by a central station
 - Any lodging or commercial facility that has construction features that increase the likelihood of fire spread
 - School(s) and other high life hazard occupancies
- **Fire & Evacuation Drills in all occupied buildings of more than 10 persons**
- **Quarterly Fire Inspections New York Units**
- **Quarterly Fire Inspections Sandy Hook**
- **Twice Annual Fire Inspections New York Units**
- **Twice Annual Fire Inspections Sandy Hook**
- **Annual Fire Inspections New York City**
- **Annual Fire Inspections Sandy Hook**

5 Fire Event Procedures

5.1 Responsible Personnel

Building specific emergency plans will be developed for each facility housing more than ten (10) personnel. Emergency plans must be in compliance with 29 CFR 1910.38 (See Appendix 36.5) and, 1910.39, and NFPA 101. In the event of a fire or any indication of fire, such as smoke, odor, or unusual heat conditions, it is the duty of any individual who discovers a fire (or potential fire) to initiate a facility general alarm.

The PSFC will work with the most senior supervisor within a facility to identify one or more employees that will be responsible for maintaining the facility's fire event procedure. (See Appendix 36.3). One or more individuals may be appointed to assist with this task.

5.2 Notification of Fire Department in New York Units

Notify the local fire department by calling 911. Each employee telephone shall have a fire reporting number decal affixed to it. The individual(s) or supervisor(s) responsible for a specific facility is responsible for ensuring compliance with this requirement. When reporting a fire, one or more personnel should be instructed to wait outside to direct the responding firefighting equipment to the location of the fire. Personnel need to respond in the following manner when calling 911:

- Keep calm, speak clearly, and answer all questions asked by the dispatcher. Do not hang up until told to do so, unless conditions require you to leave
- Give your name, location, and location of fire
- Give building address or landmarks for location
- Provide any information on individuals that may be trapped in the building
- Tell where the fire is located within the structure (e.g.: kitchen, basement, etc.)
- Tell the nature of the fire if known (i.e., flammable liquids, trash, etc.)
- Tell how much of the structure is involved in fire (e.g.: 100%, 50%, room involved, or small fire)

5.3 Notification of Fire Department in Sandy Hook

Notify the local fire department by dialing 732-872-5900 or 5900 from NPS phones. Each employee telephone shall have a fire reporting number decal affixed to it. The individual(s) or supervisor(s) responsible for a specific facility is responsible for ensuring compliance with this requirement. When reporting a fire, one or more personnel should be instructed to wait outside to direct the responding firefighting equipment to the location of the fire. Personnel need to respond in the following manner when calling 911:

- Keep calm, speak clearly, and answer all questions asked by the dispatcher. Do not hang up until told to do so, unless conditions require you to leave
- Give your name, location, and location of fire
- Give building address or landmarks for location
- Provide any information on individuals that may be trapped in the building
- Tell where the fire is located within the structure (e.g.: kitchen, basement, etc.)
- Tell the nature of the fire if known (i.e., flammable liquids, trash, etc.)
- Tell how much of the structure is involved in fire (e.g.: 100%, 50%, room involved, or small fire)

All structure fires, regardless of size or nature, are to be reported to the Regional Chief Ranger, Regional Structural Fire Manager. All fires (structural and otherwise) shall be recorded at the following web site: <http://data2.itc.nps.gov/fire/admin/LoginForm.cfm>.

5.4 Building Evacuation Signal

Upon notification of a fire within a structure, all personnel must evacuate the facility by the most direct route possible.

5.5 Meeting Designation

Evacuees will meet at a pre-designated assembly areas in parking lots outside the facility as developed in the facility fire prevention and building evacuation plan. Supervisors will account for each of their employees that are on duty or to the extent it is possible to do so, and ensure the safe evacuation of all visitors from the building. Evacuated personnel will remain together and available to responding personnel until released by the incident commander.

5.6 Handicap Requirements

The Park Safety Officer shall establish procedures to assist handicapped and special needs personnel during building evacuation. Egress for disabled persons may be not readily accessible in an emergency. Special attention shall be paid to rendering assistance to persons with disabilities in facilities that are not ADA¹⁴ compliant.

5.7 Standpipe Fire Hose Stations (Interior Hose Cabinets)

Interior standpipe fire hose stations with rack mounted fire hose shall not be used for interior structural firefighting. Rack mounted fire hose shall be removed from all hose cabinets. Interior standpipes shall remain available for firefighting purposes and can only be used by properly equipped members of a responding fire agency.

5.8 Procedures

The post-fire procedures shall have a list of contacts that includes, but is not limited to:

- Superintendent and Deputy Superintendent(s)
- Chief Ranger (Shall be briefed at the earliest possible opportunity, during the incident if possible.)
- Fire department (emergency and non-emergency)
- Law enforcement
- Facility maintenance
- Management (concessionaires only)
- Insurance (concessionaires only)

¹⁴ Americans with Disabilities Act.

6 Fire Prevention Training Requirements

6.1 Fire Prevention Training Requirements

The Park Structural Fire Chief shall be responsible for the delivery of fire prevention training. General fire prevention training is required for all newly assigned permanent, temporary, and seasonal NPS and concessionaire personnel as part of new employment orientation. This training must include locations of fire alarm pull boxes, location and use of fire extinguishers, emergency plans, and fire prevention plans. All training shall be documented and maintained on file.

6.2 Special Training

Specific fire prevention training is required for personnel who work in areas where special fire safety instructions are required. Examples include public assemblies, cultural resource facilities, dining facilities, and fuel storage and handling. Training will include visitor evacuation from the building, protection of resources, and use of portable fire extinguishers.

6.3 Training Contents

It is the joint responsibility of the Park Safety Officer, Superintendent, and PSFC to ensure that all personnel are properly trained. Training sessions should be scheduled to acquire the largest possible audience.

General fire safety training is a requirement of all employees. At a minimum, training must include:

- Building evacuation and accountability procedures
- Means of reporting fires and other emergencies
- Fire prevention in the workplace
- Fire drills
- Fire extinguisher training (hands-on, video, or DOI Learn NPS S/F PFE training course)
- Fire safety for residents of employee housing
- Fire prevention procedures and responsibilities for public assembly employees
- Permits: Hot Work (welding, cutting, and brazing) certification training for maintenance personnel and contractors

6.4 Fire Department Operations

See Section 35 – Fire Department Operations.

7 Fire Drills

7.1 Fire Drill Frequency

Fire drills are conducted periodically to ensure that all personnel with specific fire protection duties and responsibilities during emergency situations can perform these duties. Fire drills also reduce the possibility of panic in a real situation. Speed in building evacuation, although important, is not the primary objective and should be secondary to an orderly and efficient building evacuation. Drills should be held at unexpected times and under varying conditions to simulate unusual fire situations.

The PSFC will work with the most senior supervisor within a facility to identify one or more employees that will be responsible for organizing and conducting the facility's fire drills.

Managers of facilities with fire alarm systems may request assistance from the PSFC before any system is activated. The Park Dispatch office and the PSFC shall be notified before any fire drill.

Fire drills should be conducted as follows:

- Monthly – Educational (K-12 schools) and day care occupancies (except in severe weather) shall be conducted by facility managers.
- Quarterly – Hotel drills shall be held at quarterly intervals and shall cover such points as the operation and maintenance of the available first aid, fire appliances, the testing of devices to alert guests, and study of instruction for emergency duties. The drill is for employees only and the duties they are to perform. Drills in concessionaire run properties shall be conducted by concessionaire fire and safety personnel.
- Annual Building Evacuation Drills – Drills at all facilities shall be held at expected and unexpected times and under varying conditions to simulate the unusual conditions that can occur in an actual emergency. Drills in NPS occupied properties shall be conducted by the appointed supervisor. Drills in concessionaire run properties shall be conducted by concessionaire fire and safety personnel.
- Those facilities that have less than ten people and where the risk of fire is relatively low are not required to have a fire drill.

7.2 Documentation

Fire drills shall be documented and a record maintained by the person responsible for conducting the facility's fire drills.

8 Exit Requirements

8.1 Responsibility

The PSFC will work with the most senior supervisor within a facility to identify one or more employees that will be responsible for monitoring the facility's exit requirements.

Exits obstructed due to a doorway equipment malfunction or damage will be reported to Facilities Management through the work order system.

8.2 Exit Obstruction

Building exits shall not be obstructed. Desks, tables, chairs, stored material, etc., shall be arranged to permit a clear path to exits. Corridor widths and avenues of exit shall not be constricted due to obstruction.

8.3 Unlock Exit Requirement

Exit doors shall remain unlocked at all times when the facility is occupied.

8.4 Exit Illumination

Illuminated exit signs shall remain powered at all times when the facility is occupied.

8.5 Exterior Exit Locations

Exterior exits shall be kept unobstructed for the full width of the exit doors. Exits shall not be obstructed by trash, vehicles, equipment, dumpsters, or snow and ice.

8.6 Storage under Exits

Combustible storage in stairwells or under stairs is prohibited.

8.7 Blockage of Doors

Doors shall not be blocked without approval of the PSFC. Blocked doors will have a "Not An Exit" sign on them with letters at least four inches high.

8.8 Smoke Barrier Doors

Smoke barrier doors shall remain closed at all times and will swing freely without restriction. Exception: Doors equipped with the automatic magnetic, self-closing devices and are controlled by the integrated building fire alarm system may remain open when controlled by the fire alarm system. Automatic and non-automatic smoke barrier doors shall not be wedged or blocked open at any time.

8.9 Exit Door Maintenance

Exit doors shall be kept in good operating condition; door hardware operates freely and door swings freely without restriction.

8.10 Building Evacuation Plan

Building/facility evacuation plans shall be posted conspicuously in facilities where personnel must travel a considerable distance through interior enclosures and/or over obscured lanes of egress to exit the facility.

9 Housekeeping

9.1 Housekeeping Practices

The PSFC will work with the most senior supervisor within a facility to identify one or more employees that will be responsible for monitoring the facility's housekeeping practices.

Good housekeeping practices are vital in eliminating potential fire hazards within buildings and on the surrounding premises. Practices may include, but not be limited to, the following.

- Trash is not allowed to accumulate in any structure.
- Oily rags, grease, and paints shall not be placed in containers with other combustibles.
- Oily rags or wiping cloths shall be kept in approved metal waste containers with self-closing lids.
- All flammable liquid shall be properly stored in approved containers or cabinets.
- Storage areas shall be kept neat. Storage in boiler rooms, furnace rooms, electrical equipment rooms, and air conditioning and mechanical equipment rooms is strictly prohibited.
- Storage within three feet of sprinkler valves and risers is strictly prohibited. Sprinkler valves and risers shall be kept readily accessible.
- Stored materials in any building will be stacked no closer than 18 inches from the ceiling.
- A minimum of 18 inches shall be maintained above stored materials and fire sprinkler heads. Stored materials shall not be stacked above or between sprinkler heads.
- Nothing shall be hung from fire sprinkler heads, pipe, or other fire protection equipment.
- Trash shall not be accumulated or stored in janitor's closets. Janitorial supplies and equipment are the only items that can be stored in a janitor closet. Each closet shall be neat, clean, and free of accumulated trash or an abundance of supplies. Mop heads shall be hung to allow air drying.
- Lint bags and filters on clothes dryers shall kept free of lint and emptied after each use or at the end of a shift.

10 Electrical Installation and Equipment

10.1 Equipment Operation

Electrical equipment shall be utilized in a safe manner within structures and in the surrounding premises. Electrical equipment shall be utilized in a safe manner and for its intended purpose. Operation of all electrical equipment, appliances, and machines shall be stopped immediately when an unsafe or hazardous condition exists.

The following guidelines provide an overview for safe use of electrical equipment. Questions regarding the proper use of extension cords and electrical equipment should be referred to the Park Safety Officer, PSFC, or Park Electrician.

10.2 Extension Cord Use

Extension cords are used temporarily only when a flexible cord is necessary and shall not be a substitute for permanent fixed wiring. All cords shall be used only in continuous lengths without tapped or spliced sections. Such cords shall not be tacked, stapled, or fastened to woodwork or walls, nor will they be draped over pipes or other supports. All cords shall be approved by a recognized testing laboratory such as Underwriters Laboratories (U.L.), shall be constructed of #16 gauge or larger wire, and be grounded. Extension cords shall, at a minimum, be rated to carry 13 amperes (up to 1560 watts).

10.3 Appliance Usage

High wattage, portable electrical appliances (coffee pots, coffee makers, electric heaters, etc.) shall not be used with extension cords of any size. Surge protected strip cords may be used for office equipment, desk lamps, or other low wattage electrical appliances as required, provided the strip cord or circuit from the strip cord is not overloaded by the use of multiplier plugs.

10.4 Electrical Cord Protection

All electrical cords will be protected against mechanical damage and shall not be placed under rugs or carpets.

10.5 Overloading

Overloading and overusing electrical circuits and appliances is prohibited. Fuses shall not be bridged. GFI receptacles and circuit breakers shall not be taped or wired into the open position.

10.6 Flammable Liquid, Clearance of Light Fixtures

Electrical equipment used near flammable liquids or gases shall be explosion proof. Clearance of 18 inches shall be maintained around light fixtures.

10.7 Coffee Makers

Electric coffee makers may be used if they are thermostatically controlled, approved by a recognized testing laboratory (U.L. or other), properly maintained, and set on a noncombustible surface (ceramic tile). They shall be disconnected when not in use and cords removed from the floor. Timers may not be used.

10.8 Fuses, Switches, and Other Electrical Components

All fuses, switches, receptacles, and junction boxes shall be properly equipped with approved protective covers. Junction boxes and circuit breaker panels must not be blocked or obstructed

(clearance minimum 36”) and doors are kept in the closed position. Electric timers may not be used on appliances such as heaters or any other electrical equipment unless they are used in direct support of a specific research and development project. Timers will be of a commercial heavy duty type, 30 amps or more.

10.9 Compliance with National Electric Code (NEC)

Electrical installations, modifications, and safety must comply with OSHA and the National Electric Code (NEC).

11 Smoking Control

11.1 Smoking Policy

Department of Interior (DOI) policy (See Appendix 36.6) prohibits smoking in government buildings, with exceptions for residential occupancies.

Safe smoking practices must meet Director's Order 50D. The following smoking practices will be followed by all personnel:

- The Superintendent may designate all or a portion of a building, structure, or facility as closed to smoking when necessary to protect Park resources, reduce the risk of fire, or prevent conflicts among visitor use activities. Smoking in an area or location so designated is prohibited.¹⁵
Smoking materials must be extinguished before discarding.
- Smoking or striking matches or lighters will not be permitted in any building, structure, or room (including miscellaneous supply rooms, and machine shops) used for storage, repair, processing, testing, paint, evidence storage, fabrication, gasoline dispensing areas, or similar areas. Suitable metal receptacles and "NO SMOKING" signs will be posted at each entrance to a hazardous building or area.
- Ashtrays may not be emptied into trash cans and smoking material may not be discarded on floors. Ashtrays must be emptied into metal containers used for that purpose only.¹⁶

¹⁵ 36 CFR 2.21(a)

¹⁶ 36 CFR 2.13(a)(5)

12 Wildland Urban Interface (WUI)

12.1 Inspection Requirements

The Park Structural Fire Chief in conjunction with Park Assistant Fire Management Officer will ensure wildland urban interface fire safety inspections are conducted in accordance with DO/RM-16 and the GATE W-FMP. Wildland urban interface inspections will be the responsibility of GATE Assistant Fire Management Officer and the Park Fire Chief

12.2 Defensible Space

Vegetation is kept short around any structure or utility that is of combustible/flammable nature or construction.

13 Fire Extinguishers

13.1 Inspection Cycle

All fire extinguishers will be checked (inspected) on a monthly basis. Occupants of Park facilities, including Park housing, are responsible for monthly fire extinguisher checks.¹⁷ The monthly check will include the following items:

1. The extinguisher is located in its designated place
2. There are no obstructions
3. The pressure gauge or indicator is in the operable range or position
4. The extinguisher feels full when hefted
5. The hose, nozzle and other parts are not damaged
6. The security pen and seal are in place

The PSFC will work with the most senior supervisor within a facility to identify one or more employees that will be responsible for conducting monthly fire extinguisher inspections.

Extinguisher inspections should be included in each facility's fire event plan. Supervisors shall make certain that fire extinguishers are inspected in their work area and each fire extinguisher's tag is marked with the date (month/year) and initials of the person conducting the inspection. Fire extinguishers that are unserviceable or defective in shall be taken out of service and replaced immediately.

Facilities Management will be responsible for fire extinguisher maintenance and replacement. Fire extinguisher locations and maintenance intervals will be maintained in the facility management software system (FMSS).

13.2 Installation Requirements

Portable fire extinguisher installation shall be the responsibility of the Facilities Management Division. Fire extinguishers shall be installed according to NFPA 10. Types, sizes, and locations are determined by occupancy and hazard.

13.3 Location Requirements

Fire extinguishers shall not be moved or relocated from their installed positions except for use in suppression of an incipient (early stage) fire, inspection, or servicing. Extinguishers shall not be used as door stops, clothes racks, or blocked by supplies or other material.

13.4 Usage Requirements

Fire extinguishers shall only be used for their intended purpose.

13.5 Vehicle Requirements

Personnel that routinely operate the same vehicle should inspect the extinguisher in that vehicle. Vehicles that are part of a motor pool will be the responsibility of the person responsible for the motor pool. The same requirement applies to support equipment that has an extinguisher.

¹⁷ NFPA 10; Chapter 7 Inspection, Maintenance, and Recharging of Portable Fire Extinguishers; 7.1.1 Responsibility: "The owner or designated agent or occupant of a property in which fire extinguishers are located shall be responsible for inspection maintenance, and recharging."

13.6 Obsolete Types

The following types of fire extinguishers are considered obsolete and shall be removed from service:

- Soda acid
- Chemical foam (excluding film-forming agents)
- Vaporizing liquid (carbon tetrachloride)
- Cartridge-operated water
- Cartridge-operated loaded stream
- Copper or brass shell tanks (excluding pump tanks) that are joined by soft solder or rivets
- Carbon dioxide extinguishers with metal horns
- Solid charge-type AFFF extinguishers (paper cartridge)
- Pressurized water fire extinguishers manufactured prior to 1971
- Any extinguisher that needs to be inverted to operate
- Any stored pressure extinguisher manufactured prior to 1955
- Any extinguishers with 4B, 6B, 8B, 12B, and 16B fire ratings
- Stored-pressure water extinguishers with fiberglass shells (pre-1976)
- Dry chemical stored pressure extinguishers manufactured prior to October 1984 shall be removed from service at the next six-year maintenance interval or the next hydrostatic test interval, whichever comes first
- Any fire extinguisher that can no longer be serviced in accordance with the manufacturer's maintenance manual is considered obsolete and shall be removed from service

Note: The installation of new Halon[®] fire extinguishers or extinguishing systems is illegal. Existing Halon[®] systems and extinguishers can continue to be used as long as they are properly inspected, tested, and maintained.

13.7 Procurement and Replacement

Park personnel shall not purchase, install, or relocate fire extinguishers without the prior approval of the PSFC and Facilities Management. The type and classification of portable extinguishers to be used in the Park shall be approved by the PSFC before being purchased.

The procurement and replacement of extinguishers shall be the responsibility of the Facilities Management Division.

13.8 Personnel Training

The Park Structural Fire Chief along with the Park Safety Officer, will be responsible for fire extinguisher training. Fire extinguisher training will be made available on an annual basis.

All Park personnel capable¹⁸ of utilizing portable fire extinguishers are required to receive fire extinguisher training in accordance with 29 CFR 1910.157 (See Appendix 36.7). This includes NPS, concession, and tenant organizations.

¹⁸ Personnel unable to utilize portable fire extinguishers due to physical, special needs, or other limitations are excused from fire extinguisher training.

Training will familiarize employees with the general principles of fire extinguisher use, appropriate fire extinguisher selection, and the hazards involved with incipient/early stage firefighting.

Employees expected to use portable fire extinguishers shall be provided initial training within 30 days of employment and at least annually thereafter. Training may be provided in a variety of ways and is not limited to classroom, demonstration, and printed or electronic media as long as OSHA requirements are fulfilled. Annual fire extinguisher training may be obtained through the DOI Learn on-line portal.

Portable fire extinguisher training should periodically combine education with hands-on practice. Hands-on practice should include the actual discharging of fire extinguishers appropriate for the type of fires expected. Hands-on practice does not necessarily mean live fire training. However, when conducted, live-fire training must be conducted under qualified supervision in compliance with RM-58 requirements. Extinguisher training must be documented and maintained by the Park Safety Officer and/or Park Structural Fire Chief.

14 Fire Protection Systems

14.1 Blockage of System Equipment

Fire alarm manual stations, fire extinguishers, stand pipes, sprinkler system risers, and alarm control panels or enunciators shall not be blocked. A three foot clear space shall be maintained around all fire protection system equipment.

14.2 Stored Material

Stored materials are kept a minimum of 18 inches from heat, flame, or smoke detection devices, and sprinkler heads. Clearance of 36 inches is provided when stack heights exceed 15 feet.

14.3 Tampering with Equipment

Tampering with installed fire suppression/detection systems is strictly prohibited.

14.4 Alterations

Any alterations or additions to a building which could affect the operation of any fire suppression/detection system must be approved by the Northeast Region AHJ before work begins. All alterations or additions shall be completed by qualified personnel.

14.5 Exit Illumination

All exit illumination shall be tested and inspected visually on a monthly basis ensure proper function. The exit signs shall not be painted, used to support decorations, or any function other than their intended use.

The PSFC will work with the most senior supervisor within a facility to identify one or more employees that will be responsible for checking exit illumination function.

14.6 System Maintenance

All fire protection systems shall be inspected annually or more frequently if warranted. All fire protection equipment shall be maintained by qualified personnel per industry code compliant standards and proper recordkeeping shall be kept on file with the PSFC and Facilities Management Division. The procurement of a qualified contract fire protection system inspector shall be the responsibility of the Facilities Management Division.

System maintenance should be inspected in accordance with NFPA 25 and 72 and RM 58. Documentation for system maintenance is found at: Inside NPS> WASO> Directorates> Visitor and Resource Protection> Fire and Aviation Management> Structural Fire> Prevention> ITM Forms and Job Plans.

14.7 New Installation(s)

New installation(s) of fire protection systems shall be approved by the AHJ and are subject to acceptance and testing by qualified personnel. All plans and drawings shall be maintained in archival storage. Phone numbers and contact information for system monitoring stations shall be maintained and updated on an annual basis.

15 Public Assembly Facility Requirements

15.1 Special Consideration

The potential for life and high property loss in public assembly facilities requires special actions to prevent fires.

15.2 Occupancy Load

The number of persons permitted in restaurants, conference rooms, meeting rooms, bars, and other public assembly facilities is only that number which can be safely evacuated in the event of a fire. The occupant load classification is determined by the PSFC or Regional Structural Fire Manager per Chapter 7 of NFPA 101.

The maximum number of occupants shall be posted above the doorway over the main entry that is used by the public. The maximum occupancy sign shall be of a design approved by the PSFC. (see Chapter 17)

15.3 Established Procedures

Managers of public assembly facilities shall establish and maintain procedures to ensure their employees have been trained and understand their fire prevention and protection responsibilities within the work environment. This certification system includes quarterly drills of employees (building evacuation is not required) and the immediate training of newly-hired employees. All training is documented and made available to the PSFC for review by the Regional Structural Fire Manager or other authorized personnel.

15.4 Written Designation

Managers of public assembly facilities, or assistants designated in writing, are responsible to make sure these facilities remain in a fire-safe condition at close of business. Designated personnel shall conduct daily closing inspections and this requirement may not be delegated to janitorial personnel.

NOTE: The PSFC shall keep a list of names of all individuals, NPS and concessionaire, which are authorized to make closing inspections in public assembly facilities. The list shall be kept up-to-date.

15.5 Decoration Requirements

Temporary decorations, the use of temporary lighting or special effects, or unusual arrangements in public assembly facilities require an inspection by the PSFC, or designee, prior to the event. Fire retardant decorations are permitted as long as the original packaging is marked as fire retardant and is available for inspection by the PSFC or designee. This inspection does not relieve the manager of his or her closing inspection responsibilities.

Live holiday decorations and other combustible vegetation (i.e.: Christmas trees, wreaths, and swags) shall be compliant with NFPA 1: Chapter 10.14 (See Appendix 36.10). Electrical or other attached illumination systems shall not be allowed without the approval of the PSFC. Open flame is prohibited on all live vegetation within a structure.

15.6 Restaurant Requirements

Where required by the PSFC, restaurants will provide plans, drawn to scale showing the arrangement of furnishings and equipment. The restaurant shall not change the arrangement of furnishings and equipment without the approval of the PSFC after submitting the proposed arrangement plan. Changes in the furnishing and equipment arrangement shall not exceed the maximum allowable occupant load.

15.7 Kitchen Hood System Requirements

Managers of facilities where commercial or restaurant-type cooking is performed shall ensure all kitchen hood suppression systems are Underwriters Laboratories (U.L.) listed, installed, and maintained per NFPA 96 (Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations) requirements.

15.8 Requirements for Concessionaires

Concessionaire contracts shall reflect the requirements of this section and contract language shall be included regarding fire safety, inspections, testing, and maintenance of fire protection systems.

16 Heating and Cooking Appliances

16.1 Attendance Requirements

The PSFC will work with the most senior supervisor within a facility to identify one or more employees that will be responsible for assuring that kitchen ranges, stoves, and manually operated heaters are not be left operating unattended.

16.2 Open Flame Restrictions

Electric, oil fired, or any other type of open flame heaters are not permitted or to be operated in areas where concentrations of fumes from flammable liquids or gases are present. All installations, changes, and repairs of heaters and ranges shall only be made by qualified personnel.

16.3 Cleaning

All cooking ranges, grills, etc., will be kept free of excessive grease. Each unit shall be thoroughly cleaned before the kitchen is closed daily.

16.4 Obstruction to Egress

Heating, cooking, or other service equipment will not be installed or operated so as to obstruct any means of egress, facilitate spread of fire or smoke through buildings, or otherwise create a hazard to occupants.

16.5 Hot Plate Requirements

Hot plates are discouraged. Open coil-type hot plates are prohibited.

16.6 Listing Requirements

Only approved, U.L. listed electrical space heaters are authorized for use in NPS and concession facilities.

17 Open Flame Use and Fireplaces

17.1 Open Flame Policy

Use of open flame devices in assembly occupancies (except restaurants) requires a permit and inspection by the PSFC or designee. All permit required open flame use will be conducted according to the procedures contained herein. Concessions and Contracting officers shall become familiar with the requirements of this chapter and shall ensure that all permit required open flame use within their control meets these requirements.

Open flame devices will be permitted in the following situations, provided that precautions satisfactory to the PSFC are taken to prevent ignition of any combustible material or injury to occupants:

- For ceremonial or religious purposes.
- On stages and platforms where they are part of a performance.
- During conferences or temporary markets situated in assembly occupancies.

Examples of open flame devices include but are not limited to:

- Candles
- Oil lamps
- Forges
- Kilns
- Glassblowers
- Pyrotechnical devices
- Propane gas fired devices

Open flame devices do not include fireplaces or woodstoves that are used on a routine basis, are annually inspected by the PSFC, and maintained by Facilities Maintenance.

The person responsible for installation of open flame devices shall request a written permit from the PSFC, or designee, a minimum of 24 hours prior to installation and activation of open flame devices. The requestor shall provide the PSFC with the following information prior to issuance of a permit:

1. Type(s) of open flame devices to be utilized.
2. The date(s), time(s), and duration of the of open flame devices.
3. A diagram of the room in which the open flame devices will be used. The diagram shall include placement of booths, seating, tables, isles, fire extinguishers, and open flame equipment.
4. Training of personnel utilizing open flame devices.
5. Emergency response procedures and building evacuation.

A written letter (permit) from the PSFC or designee is required before installing or activating open flame devices. To avoid a delay in obtaining the permit, 24 hours advanced notice is required.

17.2 Restaurants

Restaurants are permitted to utilize open flame devices without a permit under the following circumstances:¹⁹

- Equipment fueled by small heat sources (such as candles or alcohol) that can be readily extinguished by water.
- Candles are permitted when securely supported on substantial noncombustible bases and the candle flame is protected.
- “Flaming sword” or other equipment involving open flames and flamed dishes shall be permitted to be used provided that precautions approved by the PSFC are taken.
- Listed and approved LP-gas commercial food service appliances.
- All other open flame use requires a permit issued by the PSFC.

17.3 Additional Precautions

The following precautions should be observed when using open flame devices:

- A written standard operating procedure should be in place for assuring open flame use is conducted safely and that facilities are left in safe condition prior to leaving areas used for open flame unattended.
- Installed fire suppression and detection systems are operational and properly maintained.
- All employees working around open flames or flame producing devices shall be trained in the proper use and operating of the device, emergency response procedures, and building evacuation.
- Open flames and flame-producing devices will be monitored constantly by a trained person.
- Fire extinguishers that are listed for the appropriate purpose shall be located within 30 feet of the area where open flames or flame-producing devices are in use.
- Candles shall be kept a minimum of four feet from combustible window treatments and wall or ceiling hangings.
- Fireplace openings will be covered with a fire screen when not used for cooking or similar demonstrations.
- Chimneys that serve active fireplaces or solid fuel burning stoves will be lined, provided with spark arrester, and maintained in good working order.
- Chimneys that serve active fireplaces or stoves will be inspected and cleaned annually by a competent person.
- The use of open flames either inside or outside an assembly occupancy shall be extinguished prior to shutdown of the facility to ensure that the flame is completely extinguished.

¹⁹ NFPA 101 Life Safety Code, 12.7.2 Special provisions for Food Service Operations.

18 Welding, Cutting, Blazing, and Related Permits

18.1 RM-58 Requirements²⁰

All hot work operations shall be conducted according to the procedures contained in RM 58 and 29 CFR 1910.252(a) (See Appendix 36.8). Facilities Management and Concessions and Contracting officers shall become familiar with the requirements of this chapter and shall ensure that all hot work (i.e.: welding, cutting, blazing) operations within their control meet those requirements.

A written permit from the PSFC or designee is required before starting welding, cutting, brazing, or soldering operations outside of shops or areas constructed and approved for that purpose (See Appendix 36.4). The hot work project supervisor shall obtain a written permit from the PSFC, or designee. To avoid a delay in obtaining the required permit, 24 hours advanced notice is required.

18.2 Location of Work to be Performed

When possible, welding, cutting, and work with flame or spark producing equipment should be performed in welding shops or specially constructed rooms offering proper ventilation and fire protection.

18.3 Requirements of the Hot Work at Location

When welding operations must be performed in places other than welding shops, sheet metal guards, fire retardant blankets, or similar protection shall be used to prevent hot metal and sparks from falling on wooden floors, partitions, or combustible materials which cannot be removed.

18.4 Restrictions

The welding/cutting operations environment shall be free of flammable liquids and vapors. Flammable materials within a radius of 35 feet will be protected or removed.

18.5 Fire Watch Requirements

Fire watch procedures are implemented when welding activities are conducted within 35 feet of combustible materials or as directed by the Park's Structural Fire Chief, regardless of the protection provided. Fire watch is to be provided during and for 60 minutes (at 20 minute intervals) following the completion of any hot work activity. Where applicable, fire watch personnel shall sign the welding permit upon completion of duties. When the work continues for more than one day, the permit shall be signed daily.

18.6 Fire Extinguisher Requirements

Fire extinguishers with a minimum rating of 10:A – 60:B:C shall be provided by the personnel performing the work. The extinguishers shall be approved by the PSFC or designee.

18.7 Weld Gases and Requirements

Oxygen and acetylene cylinders must be equipped with flash back arrestors and be turned off when not in use. Acetylene cylinders must always be stored in the upright position and properly secured.

²⁰ RM-58 Fire Code Compliance Section 4; Permits and Fire Safety During Construction

18.8 Requirement Application

The requirements for welding, cutting, and brazing operations apply to all new construction and remodeling projects, but do not apply to fixed or permanent welding facilities (such as maintenance facilities) that are inspected on an annual basis.

18.9 Permits and Systems Requirement

Permits shall not be issued in structures where sprinkler systems and/or fire alarms systems are not in service. During construction and renovation projects, a building's automatic fire detection and suppression systems shall only be removed from service to the extent required to accomplish the work. Once the work requiring the systems to be removed from service is completed, the systems shall be returned to service immediately, even when the facility is unoccupied. If this is not possible, a 24-hour fireguard is required after welding, cutting, and open flame operations in facilities, or a written certification is required to be submitted to the PSFC in writing that the facility is fire safe. The PSFC must be notified any time a system is removed from service and again when it is returned to service.

18.10 Permit Procedures

The procedure for obtaining a permit shall be:

- The PSFC or designee (which may include Facilities Management or Safety Office personnel) is authorized to issue the permit and conduct a worksite and equipment inspection prior to issuance of the permit.
- A worksite inspection shall be conducted prior to commencement of work. The inspection shall be conducted in accordance with RM-58 and OSHA 1910.252(a), to ensure the specified area is fire-safe.
- Failure of contractors to meet the required procedures shall result in revocation or denial of a permit. Contractors performing work without a permit shall be reported to the PSFC, contracting officer, and the Regional Structural Fire Manager.

18.11 Tar Kettles

When tar kettles are used, contractors shall follow these rules:

- Tar kettles shall not be operated on the roofs of buildings. Instead, the material must be pumped to the roof from ground level.
- Tar kettles shall not be transported with open flames.
- The use of any solid fuel or flammable liquid with a flashpoint under 100 degrees Fahrenheit is prohibited.
- At least one 20-pound dry chemical fire extinguisher with a rating of 20:A – 120:B:C shall be located within 30 feet of the tar kettle.
- Mops and other tools used for application of roofing materials must be stored away from buildings and combustibles.

18.12 Open Flames on Premises

Open flame fires, such as camp or bonfires, are prohibited unless approved by the PSFC.

19 Flammable/Combustible Liquids

19.1 Storage Requirements

The Facilities Management Division shall be responsible for maintaining flammable liquid storage and dispensing facilities. Petroleum, oil, and lubricant facilities include any area or building used for storing, dispensing, or handling any type of flammable or combustible liquid. Rules to observe in these areas or buildings include, but are not limited to, the following:

- All drums or tanks used for dispensing flammable liquids are properly bonded and grounded according to NFPA 30 (Flammable & Combustible Liquids Code).
- Storage of flammable liquids is according to NFPA 30. Only listed/approved areas, cabinets, and containers are permitted within NPS and contractor facilities.
- All dip tanks or cleaning vats which use combustible liquids are equipped with fusible links in such a manner that in case of fire, the cover closes automatically. When tanks are not in use, lids are kept closed.
- Spray painting is done only when there is adequate ventilation and in approved paint spray booths. Spray painting operations are performed according to OSHA and NFPA standards. Touch-up painting is performed carefully. The PSFC designates touch-up painting areas.
- Liquid fuels (e.g.: gasoline) shall never be used as cleaning solvents.
- Hoses for dispensing flammable liquids will be in good repair. Worn or damaged hoses and/or associated equipment are repaired or replaced.

20 Fire Hydrants and Water Supply

20.1 Requirements for Shutting off Water Supply

Water mains and fire hydrants will not be shut off, nor will any maintenance be performed which interferes with the water supply without first notifying Park Dispatch and the PSFC.

20.2 Connections to Fire Hydrants

Non-emergency connection to fire hydrants is prohibited without prior approval from the PSFC. Only properly designed hydrant wrenches will be used.

20.3 Parking near Fire Hydrants

Parking within 15 feet of fire hydrants is prohibited.

20.4 Damage Reporting

Damage to fire hydrants must be reported immediately to the PSFC, who shall subsequently report damaged equipment to Facilities Management.

20.5 Snow Removal Requirements

Building managers (including housing area residents) are responsible for keeping the hydrants closest to their facility free of snow in the winter months. Snow should be cleared a minimum of five feet from the hydrant in all directions with a path to the closest road for fire hose.

20.6 Hydrant Inspection, Testing, and Maintenance

The Facilities Management Division is responsible for fire hydrant inspection and maintenance. The PSFC shall be responsible for flow testing of hydrants.

All fire hydrants should be visually inspected and service tested every two years in residential areas and annually in areas serving commercial occupancies. A visual inspection should be made to determine the physical state of the hydrant, assure that the hydrant has not been damaged, and assess the need for repainting.

20.7 Hydrant Fire Flow Testing

Fire hydrants should be flow tested periodically, by the PSFC, in the following manner:

1. After any change or repair to water mains directly servicing a hydrant or series of hydrants.
2. Every five years in residential areas.
3. Every two in areas around commercial occupancies.

All hydrant fire flow testing should be conducted in accordance with the latest edition of NFPA 291 – Recommended Practice for Fire Flow Testing and Marking of Hydrants.

21 Fireworks

21.1 Park Policy

Using or possessing fireworks and firecrackers is prohibited, except pursuant to the terms and conditions of a permit or in designated areas under such conditions as the Superintendent may establish, in accordance with 36 CFR Sec. 2.38.

22 Explosives & Unexploded Ordnance (UXO)

22.1 Storage of Powders and Other Explosives

Using, possessing, storing, or transporting explosives, blasting agents, or explosive materials is prohibited, except pursuant to the terms and conditions of a permit. When permitted, the use, possession, storage, and transportation shall be in accordance with applicable federal and state laws and NFPA codes and standards.

A letter permitting the storage, transportation, and utilization of blasting agents and explosives shall be obtained from the PSFC.

GATEWAY NATIONAL RECREATION AREA

Sandy Hook Unit Procedure for Unexploded Ordnance (UXO)

I. Management Policy

This standard operating procedure will give direct guidance to park personnel on how to respond to and deal with unexploded ordnance incidents within the park in a safe effective manner. It is Gateway's desire that Sandy Hook be a safe work place and a safe place for people to visit.

II. Program Overview

As a formerly used defense site, the Sandy Hook Unit of Gateway National Recreation Area continues to find various types of unexploded ordnance throughout the park. Sandy Hook has seen military occupation and use for over three-hundred years, culminating with the closure of the U.S. Army post in 1975 and its transfer to the National Park Service, Department of the Interior. For forty-five of those years (1874-1919) it was the site of the United States Army's proving ground before the function was transferred to Aberdeen, Maryland. Hundreds of ordnance items have been found through the years and there is a need to respond to these incidents in a safe effective manner.

Ordnance is defined as any material designed to be of a weapons or explosive nature. All items suspected of being ordnance, will be treated as live and potentially dangerous until designated safe by the proper authorities. This SOP does not deal with any type of small arms ammunition, such as rifle or pistol rounds.

III. Program Scope

The response of the park staff to finding of unexploded ordnance is a paramount concern and must be done in an effective, professional and safe manner. Records

must be maintained to track locations and types of ordnance as well as response tactics. Proper response to found ordnance is the 3 R's

1. **RECOGNIZE**- Recognize you have possible UXO
2. **RETREAT**- Retreat to a safe area.
3. **REPORT**- Report the UXO to your local authorities.

22.2 Unexploded Ordnance Incident Response Procedure

The roles and functions of those who will be involved in responding to a potential UXO report follow:

I. Sandy Hook Dispatch:

Sandy Hook Dispatch may receive a report of a possible UXO from park staff, contractors or the general public.

The primary role of Dispatch is to direct a Law Enforcement Ranger to the location of any suspected UXO and to provide support and communications during the incident response.

Once a Law Enforcement ranger has verified a suspect UXO and secured the site, Sandy Hook Dispatch will make the following phone calls:

1. Explosive Ordnance Responder:

Only one responder needs to be called. Begin at top of this list:

- US Navy EOD, EARLE: (phone: 732-866-2340 or cell: 732-522-8812)
- US Air Force EOD, McGuire Air Force Base, (phone: 609-754-2205)
- New Jersey State Police Bomb Squad: (phone: 609-882-2000, ex.2283)

Provide the UXO Responder with the following information:

REPORTING ACTIVITY: Give them your name and that you work for the National Park Service and are located at Sandy Hook, New Jersey.

CONTACT METHOD: Give them the phone number at the Ranger Station or other Point of contact (POC) phone number if different.

LOCATION: Give a location of the suspect UXO.

DESCRIPTION OF ITEM: What is the general size & shape and description of suspected Unexploded Ordnance (UXO). Is it leaking liquid or vapors? Don't worry if you don't know the exact size or type of UXO, a general description will suffice.

RESOURCES THREATENED: Report any equipment, facilities, or other assets that are threatened, i.e. housing, fuel stations or fire threats.

PROTECTIVE MEASURES TAKEN: Describe the measures you have taken to protect personnel and equipment, i.e. evacuation of 50 feet.

2. Chief Ranger

- Radio # 511. Office: 732-872-5931

3. Unexploded Ordinance Remediation Coordinator

- Shawn Miller 732-872-5930;
Cell: 860-344-1675

If CRM Specialist cannot be reached, contact one of the individuals below in order:

- Park Ranger Thomas Hoffman. Radio #421. Office: 732-872-5950

II. Visitor Protection Ranger, First on Site:

Law Enforcement Ranger will direct immediate operations at the site where a suspected unexploded ordnance is discovered or reported.

The onsite Law Enforcement Ranger will follow the following procedures in order:

- **RECOGNIZE** if the suspect item is a possible UXO, **DO NOT TOUCH OR MOVE THE ITEM!**
- **RETREAT** to a safe distance **IMMEDIATELY** and close off the area to the public and unauthorized personnel, minimum of 50 feet. NO personnel are authorized to go with-in the 50 feet until the Bomb Squad or EOD arrives.
- **REPORT** the following to your dispatch.

LOCATION: location of the possible UXO and your safe area location.

DESCRIPTION OF ITEM: Give a general description of the item. What is the general size & shape and description of suspected Unexploded Ordnance (UXO). Is it leaking liquid or vapors? Don't worry if you don't know the exact size or type of UXO.

RESOURCES THREATENED: Report any equipment, facilities, or other assets that are threatened. Request the response of the Sandy Hook Fire Department if resources are threatened should there be an accidental detonation of the UXO.

PROTECTIVE MEASURES TAKEN: Describe any measures you have taken to protect personnel and equipment such as your 50 feet safe zone.

Site security will be maintained until the area is declared safe by certified Civilian Law Enforcement Bomb Squad or Military Explosive Ordnance Disposal (EOD) personnel.

NOTE: *Phones and radios can detonate some types of explosive devices. Radio/Cell Phone transmissions should be a minimum of 100 feet away from the suspected item.*

When the EOD or Civilian Law Enforcement Bomb Squad arrives, they are in charge of the incident and the Park Staff will maintain a safe perimeter around the item and support them in every way possible.

A case number will be taken and a report filed of the incident by the responding Law Enforcement Ranger. This report will include date, time, identification or description of ordnance item and final disposition of ordnance item. Ask the Military EOD personnel to take a global positioning (GPS) reading and a photo of the item and include that information in the report. A copy of the report will be forwarded to Unexploded Ordnance Remediation Coordinator.

In the event that a suspicious item or UXO is transported to the Ranger Station by a member of the general public the item will be placed in an established sandbag bunker to the north of the Ranger Station. Appropriate authorities will be notified immediately upon receipt of any of these items.

III. Cultural Resources Management Specialist

The role of the UORC is to serve as a subject matter expert on UXOs found at Sandy Hook in the past and to determine if the object may be of significant research or historic value. The UORC will follow instructions from the Bomb Squad while determining information about the object. If an object is of significant research value, the UORC will be primary contact with the Bomb Squad it efforts to preserve the item after it has been rendered harmless.

Throughout this process, the most important aspect is SAFETY. If at any time the Explosive Ordnance Disposal Team feels that safety precautions are not sufficient, stricter precautions should be implemented immediately according to their recommendations.

23 Compressed Gases

This chapter concerns compressed gases that are stored in cylinders and utilized by Facilities Management, Science, Visitor & Resource Protection, contractors, and concessionaire maintenance personnel.

The following guidelines provide an overview for safe use of compressed gases. Questions regarding the compressed gas safety should be referred to the Park Safety Officer or PSFC.

23.1 Separation of Stored Cylinders

Oxygen cylinders shall be separated from fuel gas cylinders or combustible materials, including oil or grease, by a minimum distance of 20 feet or by a noncombustible barrier at least five feet high with a fire rating of one-half hour.

23.2 Securing Requirements

All compressed gas cylinders must be secured in place by a chain or strap of noncombustible material.

23.3 Valve Protection

Cylinders, when not in use, must have the protective cover installed.

23.4 Cylinders and Arrestors

Oxygen and acetylene cylinders must be equipped with flash back arrestors and the equipment must be turned off when not in use. Acetylene cylinders must always be stored in the upright position and properly secured.

24 Vehicle Parking and Storage

24.1 Parking Restrictions at Hydrants

Vehicles and/or trailers may not be parked in any manner that would preclude access by fire vehicles to all sides of buildings, in fire lanes, or within 15 feet of fire hydrants and sprinkler/standpipe connections. Improperly parked vehicles are subject to removal and impoundment by law enforcement personnel.

24.2 Parking Restrictions at Fuel Storage

Vehicles may not be parked within 50 feet of any fuel storage area, except in designated parking spaces or for the purpose of loading and unloading.

24.3 Designated Building

Motor vehicles shall not be parked or stored inside any building unless the building is designed for that purpose. Persons requesting designated areas must submit a request to the Park Structural Fire Chief with a drawing of the proposed parking area. All requests must specifically identify the reason, location, number of vehicles, and type of vehicle. Commercial vehicle storage is noted on pre-fire plans.

24.4 Storage of Fuel Powered Equipment

Fuel powered equipment such as lawn mowers, snow blowers, and other equipment should not be stored in any occupied commercial building other than interior vehicle parking areas without notifying the PSFC.

24.5 Enforcement

Improperly parked vehicles may be subject to removal and impoundment by law enforcement personnel.

25 Aircraft

25.1 Safety Procedures

The Fire Management Officer shall be responsible for meeting the requirements of the Interagency Helicopter Operations Guide (IHOG), Aviation Management Directorate where applicable, and DO/RM-60 Aviation Management.

25.2 Training

Reserved

25.3 Fueling Designation

Reserved

25.4 Fueling Process Areas Prohibited

Reserved

25.5 Use of Electrical Extension Cords

Reserved

25.6 Vehicle Parking

Reserved

25.7 Ground Servicing and Static Grounding in Compliance with NFPA and OSHA

Reserved

25.8 Portable Fire Extinguishers

Reserved

25.9 Floyd Bennett Field (Under Development)

- Aircraft Storage
- Aircraft operation
- Fire & Emergency Standby
- Fuel Storage
- General Fire Safety

26 Marine

Note: GATE watercraft is fueled at authorized fueling points away from launch and take-out sites. There is no designated marina at GATE and fueling is not subject to the procedures outlined in RM-58.

26.1 Safety procedures

Reserved

26.2 Training

Reserved

26.3 Fueling designation

Reserved

26.4 Fueling process areas prohibited

Reserved

26.5 Use of electrical extension cords

Reserved

26.6 Fueling fire extinguisher requirement

Reserved

26.7 Watercraft requirement

Reserved

26.8 Watercraft detection system requirements

Reserved

27 Hazardous Materials Incident

Environmental Management System
Gateway National Recreation Area
Standard Operating Procedures
Hazardous Waste

A waste may be considered hazardous if it is ignitable (i.e., burns readily), corrosive, or reactive (e.g., explosive). A waste may also be considered hazardous if it contains certain amounts of toxic chemicals. In addition to these “characteristic” wastes, EPA has also developed a list of over 500 specific hazardous wastes. Hazardous waste takes many physical forms and may be solid, semi-solid, or even liquid.

Overview of Common Hazardous Waste Streams
Unknown or Outdated Products

Old or outdated hazardous chemicals (e.g. chemicals labeled with the words “CAUTION,” “WARNING,” “DANGER,” “POISON,” or the skull and crossbones symbol, including common household products such as cleaning products, paints, and oils maybe considered hazardous wastes. If you are unsure of how to properly dispose check the products MSDS or call the manufacturer. If you need further guidance, contact the Park Environmental Protection Specialist, Kathleen Cuzzolino, 718-354-4609.

Paints and Solvents

Oil- or solvent-based paint pose significant environmental safety and health concerns. All oil-based paints and mixtures of paint and solvent must be disposed of as hazardous waste. Latex paints typically contain some solvent but at a relatively low level. Latex paint that can no longer be used must be disposed of as hazardous waste or recycled. Do NOT dry out paint cans that have more than residual paint remaining (typically more than ¼ of can). Look for ways to reduce waste paint and prevent pollution.

Summary of Characteristic Hazardous Wastes

Review a products’ MSDS to see if it meets any of these characteristics. If the waste has any one of the following characteristics then it must be handled as a hazardous waste.

Ignitable waste - D001: Example – Aerosol Cans that are not empty. Full or empty Compressed Gas Cylinders that cannot be returned to place of purchase.

A liquid waste having a flash point less than 140° Fahrenheit; or, a non-liquid waste which is capable under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and when ignited, burns so vigorously and persistently that it creates a hazard; or, an ignitable compressed gas.

Summary of Characteristic Hazardous Wastes

Oxidizing waste - D001: Example – Peroxide,

Wastes which add oxygen to a fire. Oxidizing substances often have *per* as the beginning of the name, *oxide* as the ending of the name, or *ate* in its chemical name.

Corrosive waste - D002: Example – Methylene chloride

Water-based waste having a pH of 2.0 or less (strong acids) or 12.5 or more (strong bases); also, any material able to corrode 1/4 inch of steel per year.

Reactive waste - D003:

Unstable or explosive wastes; wastes which react violently in the presence of water; and, sulfide or

cyanide-bearing wastes which, when exposed to pH conditions between 2.0 and 12.5, give off toxic vapors.

Toxicity characteristic waste -D004-D043: Example – mercury, cadmium, lead

Waste which, under acidic conditions, releases toxic metals, pesticides or volatile organic chemicals above

certain limits. This classification includes these metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.

Common Listed Hazardous Wastes

Check products MSDS to see if it contains any of the chemicals listed below. If it does it must be handled as a hazardous waste.

Hazardous wastes from non-specific sources such as:

spent halogenated solvents used in degreasing, such as trichloroethylene, methylene chloride, 1,1,1-trichloroethane and carbon tetrachloride;

spent halogenated solvents such as those above but *not* used as degreasers, other examples are chlorobenzene, 1,1,2-trichloro- and 1,2,2-trifluoroethane;

spent nonhalogenated, ignitable-only solvents such as xylene, acetone, methanol and methyl isobutyl ketone;

spent nonhalogenated solvents such as cresols, cresylic acid and nitrobenzene;

spent nonhalogenated solvents such as toluene, methyl ethyl ketone, carbon disulfide and benzene;

- Spent solvent mixtures/blends containing 10% *before use* of F001, F002, F004, and/or F005, and;

- Various spent baths and solutions, distillation bottoms, waste-waters and filters.

Hazardous waste from specific sources such as preserving wood; formulating inks, pigments, chemicals,

and pharmaceuticals, petroleum refining and metal smelting (K-list). Discarded commercial chemical

products, off-specification products, containers and/or spill residues (P- and U-lists).

Environmental Management System

Compliance Requirements

- All Hazardous Wastes

Points of Contact, Collection Locations

- Sandy Hook Unit – Mark Mihalkovitz, 732-872-5999
Hazardous Waste Storage Shed, North Maintenance

- Staten Island Unit –Sal Pollina, 718-354-4678
Hazardous Waste Storage Shed, Miller Field, Hanger 38

- Jamaica Bay Unit – Archie Graves, 718-338-7496
Hazardous Waste Storage Room, Bldg 97, Floyd Bennett Field

Storage & Handling

- Containers must be kept closed during storage and handled to prevent leaks or rupture of the container.
- Incompatible waste must be stored in such a way that if the containers were to leak the contents would not come in contact with one another.
- Satellite accumulation areas may accumulate up to 55 gallons of hazardous waste, or 1 quart of acutely hazardous waste, at or near the point of generation, as long as it is under the control of the person operating the process that generates the waste.
- Once the satellite accumulation capacity limit has been met the container(s) must be sealed, labeled with the date and “Hazardous Waste” and moved to your Unit’s designated Hazardous Waste Storage area (see above.)

Labeling

- Each container and/or the door of the hazardous waste storage area must be clearly marked with:
 - Accumulation start date
 - Words “hazardous waste”

Recordkeeping

- Hazardous Waste Generator Logs must be completed for each satellite accumulation area and the Unit’s Hazardous Waste Storage area. Copies of these logs must be sent to the Park Environmental Protection Specialist (EPS) for consolidation at a minimum once every year.
- Quarterly inspections of the Hazardous Waste Storage area must be documented using the attached form. Submit inspection log to the EPS at least once a year. It is recommended that satellite accumulation areas document inspections at least biannually depending on accumulation rate.

- When accumulation of waste in the Hazardous Waste Storage area has reached a volume at which it can be removed properly, contact Park EPS to make arrangements for an EPA certified Hazardous Waste Disposal company to remove the waste. Hazardous Waste manifests must be obtained from the contractor. Original manifests and the corresponding Hazardous Waste Generator Logs must be sent to the EPS.

- All Hazardous Waste Generator Logs, Inspection Logs, and Waste Manifests, and any other documentation regarding the storage, handling or disposal of hazardous waste must be maintained in the Central Environmental Management System Files (EPS office) for a minimum of 3 years.

27.1 Employee Solicitation

Under no circumstances shall a fire department member solicit on-scene assistance from any other Park employee, concessions employee, or Park partner for spills and releases unless that individual has been:

- Trained to the requirements listed in 29 CFR 1910.120 and NFPA 472
- Certified in the specific operation to be performed
- Issued the appropriate safety gear for the specific operation

27.2 Visitor Solicitation

Under no circumstances shall a fire department member solicit assistance from a visitor.

27.3 Use of Protective Gear

Under no circumstance are a firefighter's personal protective equipment (turnout gear and/or self-contained breathing apparatus) to be used in lieu of approved Level I, Level II, or Level III entry suits and associated equipment.

27.4 Initial Training Requirements

All initial and recurring hazardous materials response training shall conform to the requirements of Director's Order #30B: Hazardous Spill Response Training, 29 CFR 1910.120, and NFPA 472.

27.5 Certification Requirements

All fire department members shall be trained and certified to the level of First Responder - Operations as defined in NFPA 472 and 29 CFR 1910.120.

27.6 HAZMAT Clean-up Disposal

The Facilities Management Division shall develop a list of licensed hazardous materials clean up and disposal companies that are under contract with the Park, other NPS unit, or governmental agency.

Vendors

Hazardous Waste Removal

Contractor: CLEAN VENTURE, INC

Address: 201 S 1ST ST

ELIZABETH, NJ 07206-1502

Phone: (856)365-5544

E-Mail: Michael.Lancos@cleanventure.com

Web Address: <http://www.cleanventure.com>

Remediation Services - Remediation Services to include, but not limited to, excavation, removal, remediation related laboratory testing, transportation, storage, treatment, and/or disposal of hazardous waste. Also, preparation, characterization, field investigation, conservation and site closures; wetland restoration, emergency response, UST/AST removal, air monitoring, soil vapor extraction, stabilization / solidification, bio-venting, carbon absorption, reactive walls, containment, monitoring and/or reduction of hazardous waste sites as well as ordnance removal and support. *NOTE: This effort does not include nuclear or radioactive waste.

28 Fire Apparatus Right of Way

28.1 Obstruction of Fire Lanes

Fire station exits are fire lanes and are not to be used for parking. Obstructions which delay fire vehicles are prohibited.

28.2 Passing Requirements

Vehicles shall not pass or attempt to pass any fire department apparatus responding to an alarm, nor follow closer than 500 feet from such apparatus.

28.3 Yield to Emergency Vehicles

Fire department vehicles responding to emergencies will use visual and audible warning devices. Upon seeing or hearing these devices, vehicle drivers should yield the right of way by safely steering to the right side of the road as far as possible and bringing their vehicle to a full stop.

28.4 Emergency Vehicle Driver Compliance

Operators of emergency firefighting vehicles will comply with all Park speed limits, unless responding to an emergency. In such cases, emergency vehicle operators will not take any action which may jeopardize the safe arrival of their vehicle at the scene of an emergency.

28.5 Fire Hose

Personnel will not drive vehicles over fire hoses unless authorized to do so by the senior fire officer or incident commander.

28.6 Primary and Secondary Routes

Primary and secondary emergency vehicle routes to all structures shall be established.

28.7 Alternate Routes

If primary or secondary routes are closed due to construction, weather, natural disaster, etc., alternate routes shall be established; and engine company personnel, mutual aid fire departments, and other emergency services shall be informed of the alternate route.

28.8 MOU/Mutual Aid Requirement

(Not applicable)

29 Contract Management

29.1 Pre-construction Meetings

The Park Structural Fire Chief, or a designated representative, shall attend the appropriate preconstruction or pre-performance meetings with the project/contract manager to coordinate fire and life safety requirements with contractors.

29.2 Construction Safety Policies

All construction projects, new construction, or maintenance and repair activities shall be monitored by the Contracting Office to ensure compliance with NPS fire prevention policies. When fire hazards, unsafe practices, or conditions are found, the PSFC, project manager, or contracting officer advises the responsible contractor to take corrective action.

29.3 New Construction Policy

New construction requires review and approval by the Regional AHJ . All new construction will be in accordance with the most current version of NFPA codes and standards and NPS policy. New buildings are required to have automatic sprinkler system protection and automatic fire detection per Reference Manuals 36 and 58. An exemption procedure for this requirement is explained in RM-58.

29.4 System Requirements per RM-58

Any type of alteration (renovation, modification, reconstruction, or addition) requires the review and approval by the AHJ to ensure that it meets NPS requirements. Alterations may provide opportunities to correct fire safety deficiencies, especially in older buildings. Any building undergoing alteration should be considered for automatic sprinkler system protection and automatic fire detection, if they are not already in place and in good working condition. An exemption procedure for this requirement is explained in RM-58. Any construction to modernize or renovate a structure shall not diminish the fire safety features of the facility below the level(s) required for new construction.

29.5 Change of Occupancy

Buildings changing from one occupancy classification to another require Fire Safety Plan review and approval by the AHJ. Certain Buildings undergoing a change in occupancy must have both automatic sprinkler system protection and automatic fire detection.

29.6 Demolition Work

Proposed demolition work shall be reviewed by the RSFM. The following items related to demolition require review by the Park Structural Fire Chief, or designee:

- Hot work (permit required)
- Temporary wiring
- Utility hazards
- Maintaining functional fire protection systems
- Fire extinguisher placement and use
- Storage of flammable and combustible liquids
- Storage of flammable gases
- Other precautions as required

29.7 Final Construction Documents

Final construction documents must be submitted to the AHJ for review. At this time, certification must be indicated on the drawings provided by the contractor's fire protection engineer or NICET III or higher that the drawings and specifications are in compliance with NPS structural fire requirements.

30 Contractors and Concessionaires

30.1 Procedures

All contract and concessionaire managers are responsible for enforcing procedures set forth in this instruction and the following:

- Ensure all employees (including subcontractors) receive an initial contractor's fire prevention briefing prior to commencing work.
- Comply with procedures set forth in the Contractors Fire Prevention Guide, contact specifications, and this instruction to include inspecting all work areas to ensure that they are left in a clean and fire-safe condition.
- Keep the Park Structural Fire Chief, or designee, informed of project status and any fire protection issues.

30.2 Concessions & Commercial Services Contracts

The Park Concessions Division shall assure that the applicable requirements of the Structural Fire Management Plan, Park policies and procedures, and DO/RM-58 are included in concessionaire contracts.

31 Employee Housing

31.1 Occupant Responsibilities

The Park Fire Management Branch is responsible for fire prevention in quarters. Residents do need to ensure that dependents are familiar with fire prevention instructions, know how to report fires, and know how to evacuate their quarters. Occupants will receive fire prevention orientation materials when occupying the residence. The Park Fire Management Branch will determine the contents of the fire prevention material to be included.

Occupants shall be responsible for clearing snow from around fire hydrants that are adjacent to their assigned housing.

31.2 Requirements for Detectors

Make sure the unit is securely mounted and conduct an operational test to ensure the audible alarm is working properly. All problems concerning smoke detectors are reported to the Fire Management Branch at 732-872-5999.

31.3 Inspection Requirements for Extinguishers

All problems with fire extinguishers shall be reported to the Fire Management Branch.

32 Self-Help Construction Projects

32.1 Coordination Requirements

All self-help construction projects that involve changes to structural components, means of egress, chimneys, fire places, wood stoves, or fire barriers shall be coordinated through the Housing Office, Facility Management Division, and Park Structural Fire Chief and approved by the Regional Structural Fire Manager, or authorized representative, before work begins.

32.2 Electrical Work Requirements

Self-help electrical work is prohibited unless done by a certified electrician.

32.3 Prevention Criteria

All approved self-help projects are to be constructed per recognized fire protection/prevention criteria. Plywood or highly combustible material for interior wall partitions or ceiling construction in residential or commercial occupancies is prohibited.

The fire walls and doors separating garages and living areas shall not be compromised.

32.4 New and Existing Fire Protection Systems

New and existing fire protection systems that are installed or modified during self-help projects shall be subject to inspection and approval by the PSFC and/or the IMR AHJ. Fire protection systems shall be installed or modified only by qualified personnel as defined by NFPA 72 and DO/RM-58. Inspection, testing, and maintenance are subject to the same requirements of all Park systems.

32.5 Violations

Any self-help construction work done in violation of existing fire protection standards, or not approved, is subject to review and alteration if needed to ensure compliance.

33 After Action Reviews

33.1 After Action Review Members

In general, all fire responses and emergencies should receive an after action review (AAR) and critique by fire department members. Responses that resulted in the loss of life, injury to a firefighter, or the utilization of fire suppression tactics shall be reviewed. At a minimum, the review shall consist of all crew members that responded, Park Structural Fire Chief, Park Safety Officer, and Park Chief Ranger. The procedures in 33.2 (below) are to be followed when initiating a cause and origin (fire) investigation. Additional information can be found in RM-58, Section 12, Investigations.

An After Action Review (AAR) is a professional discussion of an event, focused on performance standards, that enables firefighters to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. It is a tool leaders and units can use to get maximum benefit from every incident or project.

The AAR was developed by the military in order to create an avenue for feedback, promote evaluation and improve unit cohesion. The AAR is now used worldwide by military organizations, governments and private industry. It is considered a valuable tool in high-risk professions where the smallest mistakes can lead to disastrous results.

It is essential for NPS employees to learn from our mistakes and to capitalize on our successes. The price we pay for failure can be exceptionally high and the amount of effort put into our successes is often left unrecognized. The objective of the After Action Review is to immediately identify these success and failures. Once they have been recognized, further exploration allows the team to perfect it's skills and be better prepared for future endeavors.

The After Action Review format can be adapted to a variety of audiences and environments. It takes time to develop, accept, and perfect, so be patient and don't forget to use and share what you learn.

The NWCG Leadership Subcommittee and the Wildland Fire Lessons Learned Center are the sponsors for this resource

The Standard 4 Questions

This is the AAR format originally developed by the US Army. It is now used worldwide by other military organizations, government agencies, and private industry. The wildland fire support reference for this can be found in the Incident Response Pocket Guide.

What was planned?

(Spend about 25% of total time on this question and the next)

Review the intent of the mission

Key task assignments.

Desired "End State" (what does "Right" look like).

What actually happened?

Establish the facts

Pool multiple perspectives to build a shared picture of what happened.

Why did it happen?

(Spend about 25% of total time on this question)

Analysis of cause and effect

Focus on WHAT, not WHO.

Provide progressive refinement for drawing out explanations of what occurred.

What are we going to do next time?

(Spend about 50% of total time on this question)

Correct Weaknesses

Focus on items you can fix, rather than external forces outside of your control.

Sustain/Maintain Strengths

Identify areas where groups are performing well and should sustain. This will help repeat success and create a balanced approach to the AAR.

33.2 Investigation Requirements

All structural fires or explosions that occur on Park property must be investigated. Proper determination of their cause is an essential part of preventing future incidents, as well as compiling meaningful fire-related statistics.

Procedures for launching an investigation:

- The Park Superintendent, Chief Ranger, or their designee will notify the Regional Chief Ranger of all fires or explosions involving structures and contents.
- The Regional Chief Ranger will contact the Deputy Regional Director and Regional Structural Fire Manager.
- Working with the Park, the Deputy Regional Director and the Regional Structural Fire Manager will make a determination as to which assisting agencies will be contacted and how extensive the investigation should be.
- The Deputy Regional Director of Operations will establish a structural fire review team within 24 hours of any incident that results in a fatality or a significant dollar loss, or that is considered controversial or unusual.
- Firefighters and Law enforcement rangers or their designees must maintain the chain of evidence by securing the scene of any fire or explosion until fire investigator(s) arrive. All structural fires and explosions must be treated as potential crime scenes and handled accordingly.

Structural Fire Reporting Requirements

OPERATIONAL PROCEDURE

Once a fire incident has occurred:

A. High Priority Incidents:

- 1) Property Damage: Property damage to government or personal property greater than \$50,000 from any incident. (NOTE: Incidents resulting in property damage that may capture significant media attention should be reported regardless of damage value)
- 2) Major crime: Structural arson

The above incidents require immediate (as soon as situation permits) notification to the:

1. NPS Emergency Incident Coordination Center (EICC). Reports must be submitted by one of the following methods
 - a. Completion of the online form found on the Serious Notification link:
<http://inpshen-vrxhsin/SIncidents/default.aspx>
 - b. Calling the NPS Emergency Incident Coordination Center (EICC) 24 hours operation line at (540) 999-03412 or (800) 732-0911.
 - c. Submittal of following-up notification via E-mail to: nps_eicc@nps.gov
2. Regional Chief Ranger:

Steve Clark (215)597-4940 cell (267)252-1909
(Regional Chief Ranger will advise WASO)
3. Regional Structural Fire Management Officer:
Joe Mazzeo (617) 223-5221 cell (617) 697-6721

B. Normal-Priority Incidents:

- 1) Any structural fire involving any NPS-owned property.

These incidents require notification within 3 days to the:

1. NPS Emergency Incident Coordination Center (EICC). Reports must be submitted by one of the following methods
 - a. Completion of the online form found on the Serious Notification link:
<http://inpshen-vrxhsin/SIncidents/default.aspx>
 - b.
 - b. Calling the NPS Emergency Incident Coordination Center (EICC) 24 hours operation line at (540)999-03412 or (800)732-0911.
 - c. Submittal of following-up notification via E-mail to nps_eicc@nps.gov
 2. Regional Structural Fire Management Officer:
Joe Mazzeo (617) 223-5221 cell (617) 697-6721
- C. All structural fire incidents, no matter the severity, must have the following reports completed within 10 days:
- a. Incident Report: A case incident report prepared on the Park's incident reporting system
 - b. Enter the report into the "Structural Fire Incident Reporting System" at:

<http://internal.nps.doi.net/fire/admin/structural/>

33.3 Resources

The Park may conduct its own in-house investigation if it has qualified investigative personnel, but must receive prior approval from the Regional Structural Fire Manager. The resources below are listed in order of their overall priority as contacts and may be available for investigative assistance.

- Local fire investigators
 - A local fire investigator may assist if the local investigator is a full-time investigator and has testified in court as an expert witness.
- State Fire Marshal
 - A representative from the State Fire Marshal's office may assist in fire/explosion investigations, but he/she must be a full-time investigator and must have testified in court as an expert witness.
- U.S. Department of Treasury, Alcohol Tobacco, Firearms, and Explosives (ATF)
 - Requests made to the ATF for assistance in investigating significant structural fire incidents must be coordinated with the Regional Structural Fire Manager.

33.4 Serious Accident Investigation

A serious accident is defined as an event that results in a work related injury or fatality of an employee (NPS, other agency under NPS jurisdiction, or contractors and volunteers directly supervised by NPS), and/or incidental damage to NPS property of \$250,000 or more. All serious accidents shall be investigated as per RM-50B Section 1. Section 1 of RM-50B identifies the requirements for incident reporting and criteria for launching a serious accident investigation.

34 Bulk Fuel Storage and Fueling Stations

34.1 Inspection, Testing, and Maintenance

All bulk fuel storage and vehicle fueling stations that dispense gasoline, diesel, propane, and compressed natural gas shall be inspected, tested, and maintained in compliance with the current edition of NFPA 30: Flammable and Combustible Liquids Code and NFPA 30A: Code for Motor Fuel Dispensing Facilities and Repair Garages. The Facilities Management Division shall be responsible for bulk fuel storage and fueling station maintenance.

Annual inspections shall be conducted by the PSFC, or designee, and must be documented on the NPS annual Fire Prevention Inspection Form or other approved form. Deficiencies must be reported to the manager of record who is responsible for correcting any identified deficiencies which pose a fire hazard.

34.2 Smoking

Smoking and open flame shall be prohibited within 50 feet of any bulk fuel storage or fueling facility.

34.3 Fire Protection

All bulk fuel storage facilities and vehicle fueling stations shall have, at a minimum, one (1) – 20 pound, 20 A-120:B:C rated fire extinguisher mounted in a conspicuous location not more than 15 feet from bulk storage fill valves or lids or vehicle fueling pumps. The extinguisher shall be inspected on a monthly basis.

34.4 Housekeeping

Bulk fuel storage facilities and vehicle fueling stations shall be kept clear of all trash, debris, vegetation and storage, and shall be used only for the intended purpose.

35 Sandy Hook Unit Fire Department Operations

35.1 Park Fire Department Organizational Requirements

Park Fire Department operations are subject to the following organizational requirements:

- All fire department operations shall be conducted within the parameters established by Director's Order and Reference Manual #58.
- Standard Operating Guidelines (SOGs) shall be established and personnel trained to them.
- All fire department reviews shall be supported.
- Fire department operational deficiencies shall be documented and clearly communicated to the Regional Structural Fire Manager (RSFM).
- Fire department operational training needs shall be established and relayed to the RSFM.
- Fire Department operations are an essential Park function.
- The Park shall be dedicated financially and programmatically to supporting an in-house structural fire department operation.
- The Superintendent authorizes a structural fire chief who has the primary duty of overseeing and managing the structural fire program. A fire department SOG shall identify a clearly defined succession of command.
- The fire department is organized on a permanent basis and capable of staffing engine companies with the minimum number of trained personnel required to safely conduct a structural fire suppression operation.
- Fire engine companies shall be stationed at the following locations:
 - Station 1 – Building 51, Kearny Road, Ft. Hancock, NJ

35.2 Engine Company Training

Fire engine companies shall be comprised of NPS employees and cooperators supplied firefighters who are properly trained and qualified per RM-58. Park cooperators are encouraged to support participation of their employees in the fire engine companies.

Participants in the "Volunteer in Park" program shall not participate in any hazardous duty activities, in accordance with Director's Order 7 Volunteer in Parks and 16 USC 18g, Volunteer in Parks Program.

Volunteers or other similar personnel may support park operations if they are certified and qualified to be picked up as an emergency hire in an approved Administratively Determine (AD) position.

The Park Structural Fire Chief will coordinate formal classroom and field training for prospective and current engine company members. It is the responsibility of the PSFC to facilitate fire engine company recurring training. Training will vary in subject and depth. At a minimum, all fire engine company members shall participate in ten monthly recurring training sessions per year. The total annual training hours per engine company member shall not be less than 24.

A method shall be devised to track all completed training. Training records will be submitted to the Regional Structural Fire Manager on an annual basis. Refer to the RM-58 for requirement details. At a minimum, the data to be gathered shall include:

- Class name
- Narrative description of training provided
- Instructor – training provider
- Source materials
- Participants successfully completed class
- Length of class
- Date of class

35.3 Staffing Plan

Minimum staffing levels for each engine company shall be consistent with the requirements of RM-58, shall be listed in fire department SOGs, and clearly communicated to all fire department personnel.

Pre-incident plans shall be reviewed and updated on an annual basis. Plans shall be developed for all target hazard structures (high value, historic, collections, and transient accommodations etc.) as identified by the Park. Pre-incident plans shall be shared and an annual walk through conducted with mutual aid forces.

A fire engine company must have the following minimum number of personnel on the engine or responding by other vehicle in order to respond to an emergency.

- (1) Fire Officer
- (1) Driver Operator
- (2) Firefighters

Each individual in these positions must have successfully completed the required National Park Service Structural Fire Training Courses identified in RM-58, Chapter 13, Training, or be in possession of a certificate from an approved State or National Fire Academy. All engine company personnel shall be certified in accordance with the appropriate professional qualifications standard as described in RM-58.

35.4 Fire Department Standard Operating Guidelines

Written Standard Operating Guidelines (SOGs) shall be established that clearly identify expected fire department operations. These procedures shall describe, in detail, the various operations and guidelines that the engine company may be required to perform in conjunction with the following priorities - Life Safety, Incident Mitigation, and Property Conservation. SOGs must adhere with and be validated by both the Northeast Region and National Office staff and reflect professional standards common to the industry.

RM-58 specifies and requires the following Standard Operating Guidelines. The following subjects are included in the GATE SOGs, but may be detailed within an SOG with another title. Emergency Medical Response is covered in the Park's EMS plan.

Required SOGs:

- Offensive fire attack
- Defensive fire attack
- OSHA rapid intervention protocols

- Vehicle fires
- Hazardous materials response
- Equipment inspection
- Equipment maintenance
- Personal Protective Ensemble
- Open-circuit Self-Contained Breathing Apparatus (SCBA)
- Chock block use
- Apparatus backing policies
- Seat belt policies

35.5 Personal Protective Equipment

Personnel protective equipment (PPE): Personnel assigned structural fire suppression duties shall be properly outfitted with appropriate protective ensemble for structural firefighting that is approved and in compliance with NFPA standards and OSHA regulations. Protective ensembles for structural firefighting and other incidents shall include helmets, hoods, coats, pants, boots, and gloves.

Open-circuit self-contained breathing apparatus (SCBA): During exterior or interior structural fire suppression operations and motor vehicle and dumpster fires, all fireground personnel are required to wear approved self-contained, open circuit breathing apparatus. Self-contained breathing apparatus shall be designed, used, and maintained in accordance with current NFPA standards and OSHA regulations.

Personal Alert Safety System (PASS): All NPS structural firefighters entering a hazardous environment must wear a Personal Alert Safety System and fully understand its purpose, functionality, and care requirements.

35.6a Medical Standards

35.6b Fit Testing

35.6 Emergency Operations

Fire Department emergency operations shall comply with the specifications of RM-58 Section 10 – Fire Engine Company Operations, Section 3.5 Operations. The following topics, in addition to the topics listed in 35.4, shall be included in the Engine Company SOGs:

- Compliance with the requirements of 29 CFR 1910.134 – Two in, Two out (See Appendix 36.9)
- Response to motor vehicle incidents
- Response to hazardous materials incidents
- Response to an wildland/urban interface fire
- Confined space entry and rescue

35.7 Incident Management

All incidents are to be organized and managed under the National Incident Management System (NIMS).

All engine company personnel shall successfully complete the NIMS IS-700 online course available through DHS-FEMA and Q-462 ICS-100 – Introduction to ICS for Operational First Responders, available online through DHS-FEMA – National Fire Academy.

All command personnel, captains and above, shall complete NIMS IS-700, Q-462 ICS-100 (see above), and Q-463 ICS-200 – Basic ICS for Operational First Responders, available online through DHS-FEMA – National Fire Academy.

All chief level personnel shall complete NIMS IS-700, Q-462 ICS-100, and Q-463 ICS-200 (see above) IS-700.A, IS-800.B NRF, ICS-300, and ICS-400.

35.8 Outside Agency Response

The Park shall maintain a memorandum of understanding (MOU) with the Mid-Monmouth Mutual Aid Association. The MOU shall include detailed written documentation that specifies the Park's and mutual aid responsibilities regarding pre-incident planning, operational procedures, command and control, and clear authorities and communications. The Fire Districts shall be made aware of any special needs and concerns that the Park may have. These needs and concerns shall be communicated before an emergency situation arises and must be kept current.

Agreements and contracts for fire services must be accordance with: RM-58, Chapter 8, Agreements and Contracts.

The Park Fire Chief shall hold annual meeting with all mutual aid fire departments to address concerns and discuss operations.

35.9 New York Units

All structural fire response will be handled by the Fire Department of New York (FDNY) for all areas. The NPS will maintain a relationship with the FDNY Borough Commanders in Staten Island, Brooklyn and Queens as well as the FDNY Fire Marshals office. In conjunction with the annual NPS – FDNY wildland fire meeting, structural fire response issues will be discussed.

35.10 Sandy Hook Fire Dispatch Policy

Sandy Hook Unit
Fire Department Dispatch Policy

Activate Zetron paging system and announce Station 74 you are responding to _____, for _____ repeat and give time of dispatch.

The fire department shall be dispatched to the following incidents:

Structural Fires	Brush / Vegetation Fires	Fire Alarm Activations
Vehicle Fires	Carbon Monoxide Alarms	Odor of Smoke
Propane Leaks	Gasoline leaks	Smoke Investigations
Electrical Emergencies	Marine Vessel Fires	MVA's with injuries
Overtured vehicles	Smoke in Structures	Water/Ice Rescues

Any other call that could require fire department response or equipment/manpower

Sea Bright 43-1 and Highlands 17-1 will be dispatched automatically through Monmouth County for all structural fires or when requested by the Fire Officer on Scene.

The Park Fire Chief shall be contacted as soon as possible for all incidents at:

732-739-3633 Home

732-347-6906 Cell

36 Appendices

36.1 NPS Annual Fire Prevention Inspection Form

NPS ANNUAL FIRE PREVENTION INSPECTION

This inspection must be completed and retained by the Park Structural Fire Chief and the Facilities Management Division.

Inspector(s) Name: _____ Date: _____

Park: _____ Building: _____

FMSS asset ID number: _____

Instructions: place an "X" in the appropriate box and where a violation is identified (box N) and write in the comment section location of violation with comments on corrective action.

Life Safety

Y N NA

- Ability to exit door is not hampered by locking devices (padlocks, chains, etc.).
- Stairwell and hallway fire doors are kept in the closed position and operate properly.
- Stairwells and evacuation routes are free and clear of obstructions.
- Fire escapes and stair(s) appear to be in good condition.
- Emergency lighting units operate when tested.
- Exterior emergency exit routes are clear and free from snow and ice or other obstructions or trip and fall hazards.
- Illuminated exit signs are all lit, not blocked, and can be easily seen.
- Smoking regulation is enforced and "No Smoking" signs are posted.
- Building emergency evacuation drills are conducted at least twice per year, documented, and on file.
- All exterior exits, emergency exits, and fire escapes afford unobstructed passage to a safe area.

Fire Protection Equipment

Y N NA

- Portable fire extinguishers are mounted properly, accessible, fully charged, and sealed with current inspection tag.
- A space of at least 18 in. is kept between sprinkler heads and material.
- If fire hose cabinets exist, hose has been removed and replaced with an appropriately sized fire extinguisher.
- If fire detection and notification alarm system exist, the system is tested

- annually by a licensed person(s), and Park maintains required forms and records.
- Fire alarm notification system can be heard and seen in all parts of the building.
 - Sprinkler control valves are open and locked or remotely supervised.
 - If a sprinkler system exists, system is tested annually by a licensed person(s) and Park maintains all required forms and records.
 - If a booster fire pump and/or backflow preventor exists, they are tested annually by a licensed person(s) and Park maintains all required forms and records
 - Kitchen hood fire suppression systems are inspected and tested twice annually by a licensed person(s) and Park maintains all required form and records.
 - Sprinkler tanks, piping, and supports appear in good condition.
 - Fire hydrants and fire department connections (FDC) are visible, accessible, and operable.
 - Personnel receive annual training on proper use of portable fire extinguisher and attendance records are maintained.

Housekeeping and Storage

Y N NA

- Rubbish is not left to accumulate in excessive quantities; trash receptacles are emptied regularly.
- Storage areas are kept clean and orderly; cleaning materials are safely stored.
- Combustible materials are not stored in attics and crawl spaces.
- Aisles are unobstructed.
- Electrical, utility closets, boiler rooms, sprinkler riser/fire pump rooms are free and clear of any storage.
- Grounds surrounding the buildings are clear of accumulation of combustible materials and brush.
- Fire service access is maintained clear.
- Woodworking equipment dust collectors are functioning adequately and collector bins are emptied regularly.
- Grounds surrounding the facility are clear of accumulations of combustible material and brush.
- Fire service access roads are clear and accessible.

Hazardous Material

Y N NA

- Emergency procedures are posted in case of accidental spill.
- Flammable/combustible liquids are kept in approved safety containers.
- Soiled rags are kept in an approved self-closing waste container.
- Material Safety Data Sheets (MSDS) are available.

**Gateway National Recreation Area
Tent Assembly Permit Fire Life Safety Check List**

**Gateway National Recreation Area
Tent Assembly Permit Fire Life Safety Check List**

Inspection #
Date:
Location:
Responsible person
Phone Number
Type of event: Wedding
Crowd manager(s)
Number of occupants
Date erected:
Date(s) occupied:
Inspected by:
Approved <input type="checkbox"/> Yes <input type="checkbox"/> No

Permits

The location of the tent does not present a danger and is acceptable.

- The floor plan is acceptable.
- The occupancy load is _____ and does not exceed 1 person/15sq ft.

((Length x Width) – Obstructions) / 15 sq ft = Number of People

Design and Placement

- Tent stakes and lines are acceptable.
- No dead ends exist.
- Flammable material is clear of the structure.

Exiting

- The minimum number of exits required is _____ and has been met.
- The separation and travel distance of the exits is acceptable.
- The width and height of the exits is acceptable.
- The exits are clearly identifiable and unobstructed.
- The exit doorways meet code requirements and are functional.

Emergency Lights and Signs

- Emergency Lights and Signs are properly placed and function.

Fire Safety

- The electrical system has been inspected and found acceptable.

- The LPG meets code requirements or is LPG not used.
- The tent is fire resistive.
- Curtains, decorations, floor covering and other furnishings are fire resistive.
- No other fire hazards have been identified.

Fire Extinguishers

- Employees have been properly trained to use a fire extinguisher.
- The number of extinguishers, location, height, mounting and visibility is acceptable.
- The travel distance to extinguishers does not exceed 75 ft.
- The type and size of the extinguishers is acceptable.
- Extra fire extinguishers are available in the event an extinguisher is discharged.

Crowd Managers and Standby Fire Personnel

- The required number of crowd managers will be present at the event at the event.
- A fire watch is required.

36.2 Fire Hazard Report

REPORT OF FIRE HAZARD

Date Observed: _____

Observed / Reported by: _____
(Print Name)

Telephone # _____

E-Mail _____

Reported to Supervisor? _____
(Print Name)

Received by Park Structural Fire Chief _____ Date: _____ Hazard tracking number _____
Received by Safety Office Date: _____ By: _____

Note: Reporting Employee and Supervisor(s) Signatures Below.

Reporting employee is urged to report hazards to their building's senior supervisor responsible for fire safety and their supervisor. Should reporting employee wish to not divulge their name to the supervisor, the reporting employee may send this report directly to or call the Park Structural Fire Chief at 732-872-5998/99.

Area where hazard was noticed: _____

The following hazard was noticed: _____

The potential risk is as follows: _____

The following action is recommended: _____

Hazard Corrected? Yes No

Corrected By: _____
(Print Name) (Signature)

Supervisor Report To: (Signature) _____

Facility Senior Supervisor (Signature): _____

Reported by: (Signature) _____

36.3 Facility Fire Event Procedures and Fire Prevention Checklist

Facility Fire Event Procedures

Facility Name: Gateway National Recreation Area
Date Created or Revised: [Enter developed area name, (i.e.: Fort Tilden/Delta Beach)]

These procedures establish the process of ensuring sound resource protection for all personnel and equipment within building XXXXXX. These procedures are applicable to all personnel assigned to building XXXXXX.

References

DM, Management Policies, DO-58, DO 50-B, RM-58
GATE Structural Fire Management Plan
OSHA 1910.38, Employee Emergency Evacuation Plans

Fire Reporting Procedures

All fires must be reported, even those which have been extinguished. In the event of a fire, such as smoke, odor, or unusual heat conditions the following actions should be taken:

In New York Dial 9-1-1

In New Jersey Dial 732-872-5900 and provide the following:

- Building address or location, tell where the fire is (e.g.: room number, basement), and give your name. Remember to keep calm, speak clearly, and answer all questions asked by the communication center dispatcher. Do not hang up until told to do so. Follow on actions are required.
- Ensure responding personnel are informed of any obstructions that may impede their response time (road closures, broken down buses blocking road, floods, etc.) and provide alternate route.
- Make available a designee should the responding fire service need specific information.

During Operating Hours, Alert All Personnel

Sound the alarm to other occupants by word of mouth and by activating a manual fire alarm pull station (if available) located throughout the facility. Operation of a manual pull station does not guarantee that the fire department will respond. You MUST call 911 and notify dispatch of a fire.

The following action must be taken:

- Building warden(s) take charge
- Initial extinguisher attack (if possible)
- Building evacuation plan for employees and visitors instigated
- Accountability (ensure all areas are evacuated) and conduct roll call at pre-designated location
- Provide after action report as required by the RM-58 and NPS policies
- Call 911 to ensure that dispatch has been notified of a fire
- Attack the fire with a fire extinguisher if in an early stage (e.g.: trash can)
- Provide after action report as required by RM-58 and NPS policies

When attacking a fire with a hand held extinguisher, remember:

- Stay low to avoid breathing the heated smoke, vapors, or fumes as much as possible and stay near a door for an escape route
- If the fire is uncontrollable, get out of the area and close the door behind you
- Remember operations of an extinguisher – **PASS**: Pull, Aim, Squeeze, & Sweep

During Non-Hours of Operations and for All Structural Fires

Upon report of a serious fire in a structure, the Park Superintendent, Park Chief Ranger, and supervisory personnel that are responsible for the involved facility shall be notified of the incident.

- The Park Superintendent or Chief Ranger shall make assignments as needed to mitigate the impact of the incident on park operations, or, implement the Park's Continuity of Operations Plan if the incident is of a significant impact to the park's critical business functions.
- Supervisory personnel responsible for the involved facility will implement the elements of this plan that are necessary for the recovery of business functions within the affected facility.

Classification of Fires and Extinguishing Agents

Fires are divided into four main classes based on materials involved. Use of the proper extinguishing agent is vital for the class of fire. All personnel must be able to determine the type of fire and the correct extinguishing agent to use on each as follows:

- Class A: Fires involving organic material such as paper, wood, cloth, excelsior, etc. Fires of this type can best be extinguished with water or ABC dry chemical fire extinguisher.
- Class B: Fires involving flammable or combustible liquids such as gasoline, oil, paints, cooking fats, etc. Class B fires are best extinguished by smothering or replacing the surrounding air with an inert agent. Fire extinguishing agents for use on Class B fires are carbon dioxide (CO₂), Halon[®], or dry chemical.
- Class C: Fires involving electrical components such as electrical wires, motors, switches, transformers, and appliances. The fire extinguishing agent applied to Class C fires must not be a conductor of electricity. The best fire control method is to turn off the electrical power to the item. The types of fire extinguishing agents to be used are (CO₂), dry chemical, or Halon[®].
- Class D: Fires involving combustible metals such as magnesium, titanium, potassium, sodium, and lithium are best extinguished by using a blanket effect. These fires must be extinguished by a special extinguisher. This extinguisher is easily identified by being painted yellow or having a yellow star on it.

Building Evacuation Procedures

When notified of a fire by word of mouth or audible and visual fire alarms, all personnel must evacuate the facility by the most direct route.

If time allows, close all doors, windows, secure safes (or hand carry classified material), and shut off any unnecessary equipment. This deters the spread of fire and reduces possible injury to other personnel.

Once clear of the building, all employees (and visitors) should meet at the designated assembly area outside the facility. Inform the fire department of any people that aren't accounted for and last known location.

Assisting the Handicapped

The supervisor shall establish procedures to assist handicapped personnel during building evacuation. Remember, elevators will not be available.

Exits and Exit Plans

All emergency exits shall be kept clear and unlocked during business hours. Exit plans (diagrams) shall be developed and posted adjacent to the door of every occupied room and office within a facility. Small storage rooms and closets are not required to have an exit diagram. Large storage rooms shall have a posted exit plan. The posted exit plan shall graphically describe the following items:

- The closest two exits from each room
- A line showing the direction of travel to the closest two exits
- Fire extinguisher locations
- Fire alarm locations

In addition, the exit plan shall show or describe the muster/roll call location outside of the building.

Fire Prevention Checklist

Daily

- **Exits**
 - Unlocked
 - Clear of obstructions
 - Stairwells kept clear of combustibles – no storage under stairwell
- **Housekeeping**
 - Trash removed
 - Oily rags properly stored
 - Flammable liquids properly stored
 - Fire sprinkler heads kept clear of stacked or stored materials (3 feet in all directions)
- **Electrical Equipment**
 - Equipment used only for its intended use
 - Extension cords are proper size
- **Heating and Cooking Appliances**
 - Kept clean
 - Attended when in use
 - Turned off after use/hours

Monthly

- **Fire Extinguishers**
 - Visually inspected – tag marked with date and initials
- **Exit Signs**
 - Illuminated exit signs checked monthly to ensure proper function
 - Inspection recorded with date and initials

Semi-annually

- **Fire Drill**
 - Facility fire/evacuation drill conducted twice per year
 - Drills are recorded with date and list of participants

Annually

- **Fire Event Procedure**
 - Fire event procedure reviewed with all staff members
 - Review recorded with date and list of participants

36.4 Hot Work Permit

NATIONAL PARK SERVICE HOT WORK PERMIT

Park: _____ District: _____ Building: _____ Floor: _____

Work to be done: _____

Special precautions: _____

Is a fire watch required? Yes No

Permit Issue Date: _____ Permit Expires: _____

Person Performing Work

Contractor Business Name: _____

Contractor Representative: _____

Contractor Contact Number: _____

NPS Employee's Name: _____

NPS Office: _____ NPS Employee's Contact Number: _____

Precautions

- Sprinklers in service
- Hot work equipment in good repair

Within 35 Feet of Hot Work Area

- Floors swept, clean of combustibles
- Combustible floors wetted down, covered w/ damp sand or other shields in place
- All wall and floor openings covered
- At least one 10:A – 60:B:C fire extinguisher is located within the area

Work on Walls or Ceilings

- Combustibles moved away from opposite side of wall

Work on Enclosed Equipment (tanks, containers, ducts, dust collectors, etc.)

- Equipment cleaned of all combustibles

- Containers purged of all flammable vapors

Fire Watch

- To be provided during and 60 minutes after operation
- Supplied with a fully charged and operable fire extinguisher
- Trained in use of equipment and activating fire alarm system
- Personnel shall sign the permit upon completion of duties

Fire Watch Personnel signoff: _____ Date: _____
(If daily, add to back of permit.)

Final Check

- Work area and all adjacent areas to which sparks and heat might have spread (including floors above and below and on opposite side of wall(s) are to be inspected every 20 minutes for one hour after the work is completed and must be found fire safe.

The location where the work is to be done has been examined by _____
on _____ (Date) and all necessary precautions have been taken, and permission is granted for this work.

Approved and Issued by: Park Structure Fire Chief or Designee: _____ Signature: _____ Date: _____

Permit Requirements

Requirement Application

The requirements for welding, cutting, and brazing operations apply to all new construction and remodeling projects.

Hot Work Permitting

Hot Work shall only be performed in permanently designated areas, or areas for which a permit has been issued. Before hot work operations begin in areas that are not a permanently designated, a signed Hot Work Permit shall be issued by the Park Structural Fire Chief or designee. In addition, before approving any hot work permit, the Park Structure Fire Chief, or designee, shall inspect the work area and confirm that the proper precautions have been taken to prevent fire, in accordance with the NPS Hot Work policies.

Permanently Designated Hot Work Area

A designated area shall be a specific area designed for such work and approved by the Park Structural Fire Chief or designee. A designated area can be a maintenance shop or a detached outside location that is of noncombustible or fire-resistive construction, essentially free of combustible and flammable contents, and suitably segregated from adjacent areas. All

designated areas shall have been inspected and approved by the Park Structural Fire Chief or designee.

When welding operations must be performed in places other than welding shops, sheet metal guards, fire retardant blankets, or similar protection shall be provided to prevent hot metal and sparks from falling on wooden floors, partitions, or combustible materials which cannot be removed.

Non-Permissible Areas

Hot work **shall not be allowed** in the following areas:

- In areas not authorized by the Park Structural Fire Chief or designee
- In sprinklered buildings while such protection is impaired
- In the presence of explosive atmospheres (that is, where mixtures of flammable gases, vapors, liquids, or dusts with air exist)
- In explosive atmospheres that can develop inside unclean or improperly prepared drums, tanks, or other containers and equipment that have previously contained such materials
- In explosive atmospheres that can develop in areas with an accumulation of combustible dusts

Fire Extinguisher Requirements

Fire extinguishers of the appropriate size and listing shall be provided by the personnel performing the work. The extinguishers are approved by the Park Structural Fire Chief or designee.

Weld Gases and Requirements

Oxygen and acetylene cylinders must be equipped with flash back arrestors and be turned off when not in use. Acetylene cylinders must always be stored in the upright position and properly secured.

Tar Kettles

When tar kettles are used, contractors shall follow these rules:

- Tar kettles shall not be operated on the roofs of buildings. Instead, the material must be pumped to the roof from ground level.
- Tar kettles shall not be transported with open flames.
- The use of any solid fuel or flammable liquid with a flashpoint under 100 degrees Fahrenheit is prohibited.
- At least one 20-pound dry chemical fire extinguisher with a rating of 20:A – 120:B:C shall be located within 30 feet of the tar kettle.
- Mops and other tools used for application of roofing materials must be stored away from buildings and combustibles.

Open Flames on Premises

Open flame fires, such as camp or bonfires, are prohibited unless approved.

36.5 29 CFR 1910.38 Emergency Action Plan Requirements

29 CFR 1910.38 – Emergency action plans.

1910.38(a) Application. An employer must have an emergency action plan whenever an OSHA standard in this part requires one. The requirements in this section apply to each such emergency action plan.

1910.38(b) Written and oral emergency action plans. An emergency action plan must be in writing, kept in the workplace, and available to employees for review. However, an employer with 10 or fewer employees may communicate the plan orally to employees.

1910.38(c) Minimum elements of an emergency action plan. An emergency action plan must include at a minimum:

- 1910.38(c)(1) Procedures for reporting a fire or other emergency;
- 1910.38(c)(2) Procedures for emergency evacuation, including type of evacuation and exit route assignments;
- 1910.38(c)(3) Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;
- 1910.38(c)(4) Procedures to account for all employees after evacuation;
- 1910.38(c)(5) Procedures to be followed by employees performing rescue or medical duties; and
- 1910.38(c)(6) The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.

1910.38(d) Employee alarm system. An employer must have and maintain an employee alarm system. The employee alarm system must use a distinctive signal for each purpose and comply with the requirements in § 1910.165.

1910.38(e) Training. An employer must designate and train employees to assist in a safe and orderly evacuation of other employees.

1910.38(f) Review of emergency action plan. An employer must review the emergency action plan with each employee covered by the plan:

- 1910.38(f)(1) When the plan is developed or the employee is assigned initially to a job;
- 1910.38(f)(2) When the employee's responsibilities under the plan change; and
- 1910.38(f)(3) When the plan is changed.

29 CFR 1910.39 – Fire prevention plans

1910.39(a) Application. An employer must have a fire prevention plan when an OSHA standard in this part requires one. The requirements in this section apply to each such fire prevention plan.

1910.39(b) Written and oral fire prevention plans. A fire prevention plan must be in writing, be kept in the workplace, and be made available to employees for review. However, an employer with 10 or fewer employees may communicate the plan orally to employees.

1910.39(c) Minimum elements of a fire prevention plan. A fire prevention plan must include:

- 1910.39(c)(1) A list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard;
- 1910.39(c)(2) Procedures to control accumulations of flammable and combustible waste materials;
- 1910.39(c)(3) Procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials;
- 1910.39(c)(4) The name or job title of employees responsible for maintaining equipment to prevent or control sources of ignition or fires; and
- 1910.39(c)(5) The name or job title of employees responsible for the control of fuel source hazards.

1910.39(d) Employee information. An employer must inform employees upon initial assignment to a job of the fire hazards to which they are exposed. An employer must also review with each employee those parts of the fire prevention plan necessary for self-protection.

36.6 DOI Departmental Manual – Smoking in Public Buildings

Department of the Interior Departmental Manual

Effective Date: 3/14/01

Series: Administrative Services

Part 310: General

Chapter 11: Smoking in Public Buildings

Originating Office: Office of Acquisition and Property Management

310 DM 11

11.1 Purpose. This Chapter establishes the smoking policy for all facilities occupied by the Department of the Interior (DOI), whether GSA-owned, GSA-leased, DOI-owned, DOI-leased, or GSA delegated buildings. This Chapter implements Executive Order (E.O.) 13058, A Protecting Federal Employees and the Public From Exposure to Tobacco Smoke in the Federal Workplace, @ August 9, 1997. The E.O. was incorporated into Federal Property Management Regulation 101-20.105-3, on March 16, 1998. For the purpose of this Chapter, smoking is defined as a lighted cigar, cigarette, pipe, or any other lit tobacco product.

11.2 Policy. Smoking is prohibited in the interior space of all facilities occupied and/or controlled by the Department of the Interior.

11.3 Exceptions. This policy is limited by the following exceptions:

- A. Smoking areas established prior to the date of this Chapter, which are enclosed and exhausted directly to the outside and away from air ducts, and are maintained under negative pressure (with respect to surrounding spaces) sufficient to contain tobacco smoke within the designated area are exempt.
- B. This policy does not extend to any residential accommodation for persons voluntarily or involuntarily residing, on a temporary or long-term basis, in a building owned, leased, or rented by the Federal Government.

11.4 Responsibility.

A. The Assistant Secretary - Policy, Management and Budget, through the Director, Office of Acquisition and Property Management, is responsible for the establishment of guidelines to control smoking in buildings and facilities occupied by DOI as required by 41 CFR 101-20.105-3.

B. Heads of bureaus and offices are responsible for:

- (1) Ensuring compliance with the guidelines in this Chapter as well as any additional bureau/office rules and regulations deemed necessary for specific locations.
- (2) Providing signs in DOI-owned and leased space.
- (3) Where circumstances allow, designating outdoor smoking areas that are convenient, do not negatively impact worker productivity, and do not infringe on the health of those who do not smoke.
- (4) Providing appropriate disposal receptacles and signs within all designated smoking areas within their jurisdiction.

C. The General Services Administration is responsible for providing NO SMOKING signs on or near entrance doors of buildings under their control.

11.5 Identification of Smoking Areas. All smoking areas designated by bureaus and offices must be appropriately identified. All other areas are considered nonsmoking.

11.6 Consultation. Where there is an exclusive representative for employees, management must meet its obligations under 5 U.S.C. Chapter 71 prior to implementation of this policy.

3/14/01 #3360

Replaces 2/6/87 #2730

36.7 29 CFR 1910.157 – Portable fire extinguishers.

1910.157(a) Scope and application. The requirements of this section apply to the placement, use, maintenance, and testing of portable fire extinguishers provided for the use of employees. Paragraph (d) of this section does not apply to extinguishers provided for employee use on the outside of workplace buildings or structures. Where extinguishers are provided but are not intended for employee use and the employer has an emergency action plan and a fire prevention plan that meet the requirements of 29 CFR 1910.38 and 29 CFR 1910.39 respectively, then only the requirements of paragraphs (e) and (f) of this section apply.

1910.157(b) Exemptions.

- (1) Where the employer has established and implemented a written fire safety policy which requires the immediate and total evacuation of employees from the workplace upon the sounding of a fire alarm signal and which includes an emergency action plan and a fire prevention plan which meet the requirements of 29 CFR 1910.38 and 29 CFR 1910.39 respectively, and when extinguishers are not available in the workplace, the employer is exempt from all requirements of this section unless a specific standard in part 1910 requires that a portable fire extinguisher be provided.
- (2) Where the employer has an emergency action plan meeting the requirements of 1910.38 which designates certain employees to be the only employees authorized to use the available portable fire extinguishers, and which requires all other employees in the fire area to immediately evacuate the affected work area upon the sounding of the fire alarm, the employer is exempt from the distribution requirements in paragraph (d) of this section.

1910.157(c) General requirements.

- (1) The employer shall provide portable fire extinguishers and shall mount, locate and identify them so that they are readily accessible to employees without subjecting the employees to possible injury.
- (2) Only approved portable fire extinguishers shall be used to meet the requirements of this section.
- (3) The employer shall not provide or make available in the workplace portable fire extinguishers using carbon tetrachloride or chlorobromomethane extinguishing agents.
- (4) The employer shall assure that portable fire extinguishers are maintained in a fully charged and operable condition and kept in their designated places at all times except during use.
- (5) The employer shall remove from service all soldered or riveted shell self-generating soda acid or self-generating foam or gas cartridge water type portable fire extinguishers which are operated by inverting the extinguisher to rupture the cartridge or to initiate an uncontrollable pressure generating chemical reaction to expel the agent.

1910.157(d) Selection and distribution.

- (1) Portable fire extinguishers shall be provided for employee use and selected and distributed based on the classes of anticipated workplace fires and on the size and degree of hazard which would affect their use.
- (2) The employer shall distribute portable fire extinguishers for use by employees on Class A fires so that the travel distance for employees to any extinguisher is 75 feet (22.9 m) or less.
- (3) The employer may use uniformly spaced standpipe systems or hose stations connected to a sprinkler system installed for emergency use by employees instead of Class A portable fire extinguishers, provided that such systems meet the respective requirements of 1910.158 or 1910.159, that they provide total coverage of the area to be protected, and that employees are trained at least annually in their use.
- (4) The employer shall distribute portable fire extinguishers for use by employees on Class B fires so that the travel distance from the Class B hazard area to any extinguisher is 50 feet (15.2 m) or less.
- (5) The employer shall distribute portable fire extinguishers used for Class C hazards on the basis of the appropriate pattern for the existing Class A or Class B hazards.
- (6) The employer shall distribute portable fire extinguishers or other containers of Class D extinguishing agent for use by employees so that the travel distance from the combustible metal working area to any extinguishing agent is 75 feet (22.9 m) or less. Portable fire extinguishers for Class D hazards are required in those combustible metal working areas where combustible metal powders, flakes, shavings, or similarly sized products are generated at least once every two weeks.

1910.157(e) Inspection, maintenance and testing.

- (1) The employer shall be responsible for the inspection, maintenance and testing of all portable fire extinguishers in the workplace.
- (2) Portable extinguishers or hose used in lieu thereof under paragraph (d)(3) of this section shall be visually inspected monthly.
- (3) The employer shall assure that portable fire extinguishers are subjected to an annual maintenance check. Stored pressure extinguishers do not require an internal examination. The employer shall record the annual

maintenance date and retain this record for one year after the last entry or the life of the shell, whichever is less. The record shall be available to the Assistant Secretary upon request.

(4) The employer shall assure that stored pressure dry chemical extinguishers that require a 12-year hydrostatic test are emptied and subjected to applicable maintenance procedures every 6 years. Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement. When recharging or hydrostatic testing is performed, the 6-year requirement begins from that date.

(5) The employer shall assure that alternate equivalent protection is provided when portable fire extinguishers are removed from service for maintenance and recharging.

1910.157(f) Hydrostatic testing.

(1) The employer shall assure that hydrostatic testing is performed by trained persons with suitable testing equipment and facilities.

(2) The employer shall assure that portable extinguishers are hydrostatically tested at the intervals listed in Table L-1 of this section, except under any of the following conditions:

- (i) When the unit has been repaired by soldering, welding, brazing, or use of patching compounds;
- (ii) When the cylinder or shell threads are damaged;
- (iii) When there is corrosion that has caused pitting, including corrosion under removable name plate assemblies;
- (iv) When the extinguisher has been burned in a fire; or
- (v) When a calcium chloride extinguishing agent has been used in a stainless steel shell.

(3) In addition to an external visual examination, the employer shall assure that an internal examination of cylinders and shells to be tested is made prior to the hydrostatic tests.

TABLE L-1

Type of extinguishers	Test interval (years)
Soda acid (soldered brass shells) (until 1/1/82)	21 ²¹
Soda acid (stainless steel shell)	5
Cartridge operated water and/or antifreeze	5
Stored pressure water and/or antifreeze	5
Wetting agent	5
Foam (soldered brass shells) (until 1/1/82)	1
Foam (stainless steel shell)	5
Aqueous Film Forming foam (AFFF)	5
Loaded stream	5
Dry chemical with stainless steel	5
Carbon Dioxide	5
Dry chemical, stored pressure, with mild steel, brazed brass or aluminum shells	12
Dry chemical, cartridge or cylinder operated, with mild steel shells	12
Halon 1211	12
Halon 1301	12
Dry powder, cartridge or cylinder operated with mild steel shells	12

(4) The employer shall assure that portable fire extinguishers are hydrostatically tested whenever they show new evidence of corrosion or mechanical injury, except under the conditions listed in paragraphs (f)(2)(i)-(v) of this section.

(5) The employer shall assure that hydrostatic tests are performed on extinguisher hose assemblies which are equipped with a shut-off nozzle at the discharge end of the hose. The test interval shall be the same as specified for the extinguisher on which the hose is installed.

(6) The employer shall assure that carbon dioxide hose assemblies with a shut-off nozzle are hydrostatically tested at 1,250 psi (8,620 kPa).

(7) The employer shall assure that dry chemical and dry powder hose assemblies with a shut-off nozzle are hydrostatically tested at 300 psi (2,070 kPa).

(8) Hose assemblies passing a hydrostatic test do not require any type of recording or stamping.

(9) The employer shall assure that hose assemblies for carbon dioxide extinguishers that require a hydrostatic test are tested within a protective cage device.

²¹ Extinguishers having shells constructed of copper or brass joined by soft solder or rivets shall not be hydrostatically tested and shall be removed from service by January 1, 1982. (Not permitted)

- (10) The employer shall assure that carbon dioxide extinguishers and nitrogen or carbon dioxide cylinders used with wheeled extinguishers are tested every 5 years at 5/3 of the service pressure as stamped into the cylinder. Nitrogen cylinders which comply with 49 CFR 173.34(e)(15) may be hydrostatically tested every 10 years.
- (11) The employer shall assure that all stored pressure and Halon 1211 types of extinguishers are hydrostatically tested at the factory test pressure not to exceed two times the service pressure.
- (12) The employer shall assure that acceptable self-generating type soda acid and foam extinguishers are tested at 350 psi (2,410 kPa).
- (13) Air or gas pressure may not be used for hydrostatic testing.
- (14) Extinguisher shells, cylinders, or cartridges which fail a hydrostatic pressure test, or which are not fit for testing shall be removed from service and from the workplace.
- (15)
- (i) The equipment for testing compressed gas type cylinders shall be of the water jacket type. The equipment shall be provided with an expansion indicator which operates with an accuracy within one percent of the total expansion or .1cc (.1mL) of liquid.
 - (ii) The equipment for testing non-compressed gas type cylinders shall consist of the following:
 - (A) A hydrostatic test pump, hand or power operated, capable of producing not less than 150 percent of the test pressure, which shall include appropriate check valves and fittings;
 - (B) A flexible connection for attachment to fittings to test through the extinguisher nozzle, test bonnet, or hose outlet, as is applicable; and
 - (C) A protective cage or barrier for personal protection of the tester, designed to provide visual observation of the extinguisher under test.
- (16) The employer shall maintain and provide upon request to the Assistant Secretary evidence that the required hydrostatic testing of fire extinguishers has been performed at the time intervals shown in Table L-1. Such evidence shall be in the form of a certification record which includes the date of the test, the signature of the person who performed the test and the serial number, or other identifier, of the fire extinguisher that was tested. Such records shall be kept until the extinguisher is hydrostatically retested at the time interval specified in Table L-1 or until the extinguisher is taken out of service, whichever comes first.

1910.157(g) Training and education.

- (1) Where the employer has provided portable fire extinguishers for employee use in the workplace, the employer shall also provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting.
- (2) The employer shall provide the education required in paragraph (g)(1) of this section upon initial employment and at least annually thereafter.
- (3) The employer shall provide employees who have been designated to use fire fighting equipment as part of an emergency action plan with training in the use of the appropriate equipment.
- (4) The employer shall provide the training required in paragraph (g)(3) of this section upon initial assignment to the designated group of employees and at least annually thereafter.

36.8 29 CFR 1910.252(a) – Welding, Cutting, and Brazing – General Requirements

1910.252(a) Fire prevention and protection.

(1) Basic precautions. For elaboration of these basic precautions and of the special precautions of paragraph (d)(2) of this section as well as a delineation of the fire protection and prevention responsibilities of welders and cutters, their supervisors (including outside contractors) and those in management on whose property cutting and welding is to be performed, see, Standard for Fire Prevention in Use of Cutting and Welding Processes, NFPA Standard 51B,1962, which is incorporated by reference as specified in Sec. 1910.6. The basic precautions for fire prevention in welding or cutting work are:

(i) Fire hazards. If the object to be welded or cut cannot readily be moved, all movable fire hazards in the vicinity shall be taken to a safe place.

(ii) Guards. If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards.

(iii) Restrictions. If the requirements stated in paragraphs(a)(1)(i) and (a)(1)(ii) of this section cannot be followed then welding and cutting shall not be performed.

(2)Special precautions. When the nature of the work to be performed falls within the scope of paragraph (a)(1)(ii) of this section certain additional precautions may be necessary:

(i) Combustible material. Wherever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks which might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways and open or broken windows.

(ii) Fire extinguishers. Suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose or portable extinguishers depending upon the nature and quantity of the combustible material exposed.

(iii)Fire watch.

(A) Fire watchers shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, or any of the following conditions exist:

(1)Appreciable combustible material, in building construction or contents, closer than 35 feet (10.7 m) to the point of operation.

(2) Appreciable combustibles are more than 35 feet (10.7 m) away but are easily ignited by sparks.

(3) Wall or floor openings within a 35-foot (10.7 m) radius expose combustible material in adjacent areas including concealed spaces in walls or floors.

(4)Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.

(B) Fire watchers shall have fire extinguishing equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least a half hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

(iv) Authorization. Before cutting or welding is permitted, the area shall be inspected by the individual responsible for authorizing cutting and welding operations. He shall designate precautions to be followed in granting authorization to proceed preferably in the form of a written permit.

(v) Floors. Where combustible materials such as paper clippings, wood shavings, or textile fibers are on the floor, the floor shall be swept clean for a radius of 35 feet (10.7 m). Combustible floors shall be kept wet, covered with damp sand, or protected by fire-resistant shields. Where floors have been wet down, personnel operating arc welding or cutting equipment shall be protected from possible shock.

(vi) Prohibited areas. Cutting or welding shall not be permitted in the following situations:

(A) In areas not authorized by management.

(B) In sprinklered buildings while such protection is impaired.

(C) In the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids, or dusts with air), or explosive atmospheres that may develop inside uncleaned or improperly prepared tanks or equipment which have previously contained such materials, or that may develop in areas with an accumulation of combustible dusts.

(D) In areas near the storage of large quantities of exposed, readily ignitable materials such as bulk sulfur, baled paper, or cotton.

(vii) Relocation of combustibles. Where practicable, all combustibles shall be relocated at least 35 feet (10.7 m) from the work site. Where relocation is impracticable, combustibles shall be protected with flameproofed covers or otherwise shielded with metal or asbestos guards or curtains.

(viii) Ducts. Ducts and conveyor systems that might carry sparks to distant combustibles shall be suitably protected or shut down.

- (ix) Combustible walls. Where cutting or welding is done near walls, partitions, ceiling or roof of combustible construction, fire-resistant shields or guards shall be provided to prevent ignition.
- (x) Noncombustible walls. If welding is to be done on a metal wall, partition, ceiling or roof, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation, preferably by relocating combustibles. Where combustibles are not relocated, a fire watch on the opposite side from the work shall be provided.
- (xi) Combustible cover. Welding shall not be attempted on a metal partition, wall, ceiling or roof having a combustible covering nor on walls or partitions of combustible sandwich-type panel construction.
- (xii) Pipes. Cutting or welding on pipes or other metal in contact with combustible walls, partitions, ceilings or roofs shall not be undertaken if the work is close enough to cause ignition by conduction.
- (xiii) Management. Management shall recognize its responsibility for the safe usage of cutting and welding equipment on its property and:
 - (A) Based on fire potentials of plant facilities, establish areas for cutting and welding, and establish procedures for cutting and welding, in other areas.
 - (B) Designate an individual responsible for authorizing cutting and welding operations in areas not specifically designed for such processes.
 - (C) Insist that cutters or welders and their supervisors are suitably trained in the safe operation of their equipment and the safe use of the process.
 - (D) Advise all contractors about flammable materials or hazardous conditions of which they may not be aware.
- (xiv) Supervisor. The Supervisor:
 - (A) Shall be responsible for the safe handling of the cutting or welding equipment and the safe use of the cutting or welding process.
 - (B) Shall determine the combustible materials and hazardous areas present or likely to be present in the work location.
 - (C) Shall protect combustibles from ignition by the following:
 - (1) Have the work moved to a location free from dangerous combustibles.
 - (2) If the work cannot be moved, have the combustibles moved to a safe distance from the work or have the combustibles properly shielded against ignition.
 - (3) See that cutting and welding are so scheduled that plant operations that might expose combustibles to ignition are not started during cutting or welding.
 - (D) Shall secure authorization for the cutting or welding operations from the designated management representative.
 - (E) Shall determine that the cutter or welder secures his approval that conditions are safe before going ahead.
 - (F) Shall determine that fire protection and extinguishing equipment are properly located at the site.
 - (G) Where fire watches are required, he shall see that they are available at the site.
- (xv) Fire prevention precautions. Cutting or welding shall be permitted only in areas that are or have been made fire safe. When work cannot be moved practically, as in most construction work, the area shall be made safe by removing combustibles or protecting combustibles from ignition sources.

36.9 29 CFR 1910.134(g)(4) Respiratory Protection – Procedures for Interior Structural Firefighting

1910.134(g)(4) Procedures for interior structural firefighting. In addition to the requirements set forth under paragraph (g)(3), in interior structural fires, the employer shall ensure that:

- (i) At least two employees enter the IDLH atmosphere and remain in visual or voice contact with one another at all times;
- (ii) At least two employees are located outside the IDLH atmosphere; and
- (iii) All employees engaged in interior structural firefighting use SCBAs.

Note 1 to paragraph (g): One of the two individuals located outside the IDLH atmosphere may be assigned to an additional role, such as incident commander in charge of the emergency or safety officer, so long as this individual is able to perform assistance or rescue activities without jeopardizing the safety or health of any firefighter working at the incident.

Note 2 to paragraph (g): Nothing in this section is meant to preclude firefighters from performing emergency rescue activities before an entire team has assembled.

36.10 NFPA 1 – National Fire Code; 10.14 Combustible Vegetation

10.14 Combustible Vegetation.

10.14.1 Combustible vegetation, including natural cut Christmas trees, shall be in accordance with Section 10.14.

10.14.1.1 Christmas tree placement within buildings shall comply with Table 10.14.1.1.

10.14.2 In any occupancy, limited quantities of combustible vegetation shall be permitted where the AHJ determines that adequate safeguards are provided based on the quantity and nature of the combustible vegetation.

10.14.3* Provisions for Fire Retardance for Artificial Vegetation.

10.14.3.1 Artificial vegetation and artificial Christmas trees shall be labeled or otherwise identified or certified by the manufacturer as being fire retardant.

10.14.3.2 Such fire retardance shall be demonstrated by each individual decorative vegetation item, including any decorative lighting, in an approved manner.

10.14.4 Vegetation and Christmas trees shall not obstruct corridors, exit ways, or other means of egress.

10.14.5 Only listed electrical lights and wiring shall be used on natural or artificial combustible vegetation, natural or artificial Christmas trees, and other similar decorations.

10.14.6 Electrical lights shall be prohibited on metal artificial trees.

10.14.7 Open flames such as from candles, lanterns, kerosene heaters, and gas-fired heaters shall not be located on or near combustible vegetation, Christmas trees, or other similar combustible materials.