NAVSEA
STANDARD ITEM

FY-13 (CH-2)

ITEM NO: 009-08
DATE: ***15 JUN 2012***
CATEGORY: I

1. SCOPE:

1.1 Title: Fire Protection at Contractor's Facility; accomplish

2. REFERENCES:

2.1 NFPA Standard 312, Standard for Fire Protection of Vessels During Construction, Repair, and Lay-up

2.2 NFPA Standard 1962, Standard for the Care, Use, and Service Testing of Fire Hose Including Couplings and Nozzles

2.3 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

3. REQUIREMENTS:

3.1 Provide fire protection in accordance with the requirements of 2.1 through 2.3 and this item.

3.2 Primary fire protection equipment shall consist of:

3.2.1 Fire pumps capable of providing the gallons per minute (GPM) flow specified in Attachment A at 100 PSIG with 2-1/2 inch fire hoses to ensure that GPM flow in Attachment A is uninterrupted for the entire availability. Flow and pressure shall be measured at the connection point to the ship's fire main.

3.2.1.1 Verify by the Pitot tube method or an in-line flow meter that the water supply specified in Attachment A is available. Water flow tests shall be accomplished prior to availability start date, each time the vessel shifts berths, and annually thereafter should the contract extend beyond one year.

3.2.2 Lighting provided for the ship/berthing barges topside area in the vicinity of each gangway. The term "ship" as used herein is synonymous with, and has the same definition as the term "vessel" as defined in 2.3.

3.2.3 Devices in place to alert contractor and local fire department. Devices shall also be in place on board the ship in the vicinity of each gangway, at convenient locations in the superstructure, main and auxiliary machinery spaces, and on the pier in close proximity to the ship.

3.2.4 A portable 300 KW diesel generator with associated cables, lugs/plugs to supply emergency power during transits to and from dry dock when ship's emergency power cannot be used.

3.3 When the ship's fire main is out of service, temporary primary fire protection shall consist of:

3.3.1 Fire pumps capable of providing the gallons per minute (GPM) flow specified in Attachment A at 100 PSIG with 2-1/2 inch hoses to ensure that GPM flow in Attachment A is uninterrupted for the entire availability. Flow and pressure shall be measured at the connection point to the temporary hose valve manifold stations.

3.3.2 Two and one-half inch fire hose and hose valve manifolds on the vessel and dry dock or marine railway so that all parts of the vessel and dry dock or marine railway can be reached by at least 2, one and one-half inch 100-foot hoses. The 100-foot hoses shall be pre-connected and faked on racks nearby.

3.4 Emergency fire protection equipment, in addition to that required by 3.2 or 3.3, shall consist of:

3.4.1 Fire pumps capable of providing 500 GPM at 100 PSIG to hose valve manifolds located on the vessel. Flow and pressure shall be measured at the manifolds.

3.4.2 Two and one-half inch fire hoses and hose valve manifolds on the vessel and dry dock or marine railway so that all parts of the vessel and dry dock or marine railway can be reached by at least 2, one and one-half inch 100 foot hoses. The 100 foot hoses and nozzles shall be pre-connected and faked on racks nearby.

3.4.2.1 The manifold stations shall be clearly identified, with sources of water and operating instructions.

3.4.2.2 Emergency fire protection shall be provided in the areas prior to placing any fire main section out of commission.

3.4.3 Water supply shall be available within 3 minutes of loss of primary source of fire main flow/pressure.

3.4.4 Emergency lighting and power, other than existing ship's emergency backup, shall be available for emergency lighting throughout the ship/barge and emergency devices using a separate source of energy or power line.

3.5 Primary, temporary primary, and emergency fire protection equipment shall consist of:

3.5.1 Fire hoses equipped with one and one-half inch combination straight stream and spray pattern nozzle. Charged hoses shall have recirculation capability which will prevent freezing of water in each hose.

3.5.2 Fire hoses shall be inspected and service-tested in accordance with 2.2 within 90 days before being placed in service for the first time and at least annually thereafter.

3.5.3 Portable communication devices shall be provided for use during fire fighting operations between site and fire and contractor's key control center.

3.5.4 Portable lighting devices shall be in place to assist in fire fighting operation when normal and emergency shipboard power fails.

3.5.5 Emergency backup support equipment (crane, forklift, trucks, pumps) to assist in securing or providing temporary services shall be provided.

3.5.6 Dewatering equipment (100 GPM minimum).

3.5.7 Portable fire pumps capable of a total of 500 GPM at 100 PSIG on board ship during berth shifts, including transits to and from dry dock, when ship's system cannot be used.

3.5.8 Install gages at connection to the ship's fire main and on all temporary and emergency fire main manifolds, and ensure that 100 PSIG is maintained at each gage uninterrupted for the entire availability.

3.6 Maintain available for review, prior to commencement of work, a fire safety plan meeting the requirements of 2.3. In addition to the requirements of 2.3, the plan shall identify:

3.6.1 The integrated fire protection system which will be in effect during the performance of the Job Order.

3.6.2 Total fire prevention program used, along with the types and frequency of tests of equipment and devices.

3.6.3 Detailed communication links (telephones, drop boxes, alarms, horns) location, testing interval, and their interface with municipal systems.

3.6.4 Normal and emergency sources of electric power, fire fighting water and lighting, testing interval, and their interface with municipal systems.

3.6.5 The location of all the normal and emergency backup support equipment to be used in support when combating a fire, and the equipment's testing cycle.

3.6.6 The shipyard organization to be used and their:

3.6.6.1 Designation and responsibility for all shifts

3.6.6.2 Training

3.6.6.3 Anticipated response times

3.6.6.4 Interface with municipal units

3.6.7 The general procedures directing contractor employees on:

3.6.7.1 Fire reporting

3.6.7.2 Fire responses

3.6.7.3 Fire fighting actions

3.6.7.4 Prolonged fire fighting responsibilities

3.6.8 The frequency testing cycle of the fire protection system.

3.7 The requirements of 3.6.7.1 shall be posted on the quarterdeck.

3.8 A fire fighting and fire prevention conference shall be conducted within 5 calendar days after arrival of the ship at the contractor's facility. The conference schedule shall be established at least 5 calendar days prior to the arrival of the ship. This conference shall familiarize Ship's Force with the contractor's fire safety plan for fire prevention and fire fighting and with the procedures that will be in use by municipal fire fighting organizations, as well as familiarize the contractor and the municipal fire fighting organizations with the ship arrangement, shipboard fire prevention, and fire fighting systems, equipment, and organization, and familiarize all parties with the scope of work and aspects of the work or ship conditions that have significance in fire prevention and fire fighting.

3.8.1 The conference shall specifically address the following matters:

3.8.1.1 Fire alarm and response procedures

3.8.1.2 Contractor fire fighting capability and procedures

3.8.1.3 Municipal fire fighting capability and procedures

3.8.1.4 Fire fighting jurisdictional cognizance

3.8.1.5 Communication system for fire reporting and control of fire fighting efforts

3.8.1.6 Shipboard arrangement including access routes, availability of fire fighting systems (installed and temporary), and communication systems

3.8.1.7 Shipboard fire fighting organization, systems, drills, and equipment

3.8.1.8 Ship, space, and equipment security consideration

3.8.1.9 Compatibility of ship, contractor, and municipal fire fighting equipment

3.8.1.10 Industrial work scope, including location of ship, and effect on fire fighting systems, access, and communications

3.9 A tour of the ship shall be conducted for municipal fire department personnel, the SUPERVISOR, Ship's Force, and contractor key personnel assigned specific responsibilities during fires to familiarize personnel concerned with the ship's normal access and anticipated condition while industrial work is in progress.

3.10 Ensure access to temporary and Ship's Force firefighting equipment is not obstructed or restricted.

4. NOTES:

4.1 None.

ATTACHMENT A
FIRE PROTECTION WATER SUPPLY REQUIREMENTS

SHIP TYPE		FLOW (GPM) *
AD	Destroyer Tender	1500
ADG	Degaussing Ship	500
AE	Ammunition Ship	1500
AF	Store Ship	1500
AFS	Combat Store Ship	1500
AG	Miscellaneous Auxiliary Ship	1500
AGEH	Hydrofoil Research Ship	500
AGF	Miscellaneous Flagship	2000
AGFF	Frigate Research Ship	1000
AGM	Missile Range Instrumentation Ship	1500
AGMR	Major Communications Relay Ship	1500
AGOR	Oceanographic Research Ship	500
AGP	Gunboat Support Ship	2000
AGS	Surveying Ship	1000
AH	Hospital Ship	1000
AK	Cargo Ship	1500
AKS	Store Issue Ship	1500
AKR	Vehicle Cargo Ship	1500
ANL	Net Laying Ship	500
AO	Oiler	1500
AOE	Fast Combat Support Ship	1500
AOG	Gasoline Tanker	1000
AOR	Fleet Replenishment Oiler	1500
AP	Transport Ship	1000
APB	Self-propelled Barracks Ship	500
AR	Repair Ship	1500
ARB	Battle Damage Repair Ship	500
ARC	Cable Repair and Laying Ship	1000
ARG	Internal Combustion Engine Repair Ship	1500
ARL	Landing Craft Repair Ship	1000
ARS	Salvage Ship	500
ARSD	Salvage Lifting Ship	500
ARST	Salvage Tender	1000
ARVA	Aircraft Repair Ship	1000
ARVE	Aircraft Engine Ship	1000
ARVH	Helicopter Tender	1500
AS	Submarine Tender	1500
ASR	Submarine Rescue Ship	600
ATA	Ocean Tug	500
ATF	Ocean Tug Fleet	500
ATS	Salvage and Rescue Tug	500
AVM	Guided Missile Ship	1500
CV, CVN	Aircraft Carrier	3000
CG, CGN	Guided Missile Cruiser	1000
DD	Destroyer	1000

ATTACHMENT A
FIRE PROTECTION WATER SUPPLY REQUIREMENTS (Con't)

SHIP TYPE		FLOW (GPM) *	
DDG	Guided Missile Destroyer	1000	
FFG	Guided Missile Frigate	1000	
IX	Unclassified Miscellaneous	1500	
LCC	Amphibious Command Ship	1000	
LCS	***Littoral Combat Ship***	***1000***	
LFR	Inshore Fire Support Ship	500	
LHA	Amphibious Assault Ship	2500	**
LHD	***Amphibious Assault Ship***	***2000***	
LKA	Amphibious Cargo Ship	1500	
LPA	Amphibious Transport Ship	1500	
LPD	Amphibious Transport Dock	1500	***
LPR	Amphibious Transport-Small	500	
LSD	Landing Ship Dock	2000	***
PTF	Fast Patrol Crafts	500	
YRB	Repair and Berthing Barge	500	
YRBM	Repair, Berthing and Messing Barge	500	
YRBL	Repair, Berthing and Messing Barge (large)	500	
LST	Landing Ship Tank	1500	***
MC***M***	Mine Counter Measures Ship	1000	
MSF	Fleet Minesweeper Ship	500	
PC	Patrol Coastal	520	
PCH	Hydrofoil Patrol Craft	500	
PG	Patrol Combatants	500	
PGH	Hydrofoil Gunboat	500	
PHM	Hydrofoil Missile Patrol Combatants	500	

* All flows are from the pier or dry dock outlet and are available at adequate residual pressures from those systems in compliance with present design criteria for dry docks and piers as reflected in NAVFAC design manuals (***UFC 4-213-10, UFC 4-213-12, UFC 4-150-01, UFC 4-150-02, and UFC 4-150-06***).

** Includes supply to operate 2 hangar sprinkler groups and 2, 2-1/2-inch hoselines.

*** Includes supply to operate one sprinkler group and 2, 2-1/2-inch hoses.