

NAVSEA
STANDARD ITEM

FY-05

ITEM NO: 009-08
DATE: 29 AUG 2003
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 and 2.2 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 Table One at 100 PSIG with 2-1/2 inch fire hoses to ensure that GPM flow in Table One 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 Table One 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 Table One at 100 PSIG with 2-1/2 inch hoses to ensure that GPM flow in Table One 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 two, one and one-half inch 100-foot hoses. The 100-foot hoses shall be preconnected 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 two, one and one-half inch 100 foot hoses. The 100 foot hoses and nozzles shall be preconnected 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 three 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 written description detailing the integrated fire protection system which will be in effect during the performance of the Job Order. The description shall identify:

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

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

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

3.6.4 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.

- 3.6.5 The shipyard organization to be used and their:
 - 3.6.5.1 Designation and responsibility for all shifts
 - 3.6.5.2 Training
 - 3.6.5.3 Anticipated response times
 - 3.6.5.4 Interface with municipal units
- 3.6.6 The general procedures directing contractor employees on:
 - 3.6.6.1 Fire reporting
 - 3.6.6.2 Fire responses
 - 3.6.6.3 Fire fighting actions
 - 3.6.6.4 Prolonged fire fighting responsibilities
- 3.6.7 The frequency testing cycle of the fire protection system.

3.7 The requirements of 3.6.6.1 shall be posted on the quarterdeck.

3.8 A fire fighting and fire prevention conference shall be conducted within five calendar days after arrival of the ship at the contractor's facility. The conference schedule shall be established at least five calendar days prior to the arrival of the ship. This conference shall familiarize the Ship's Force with the contractor's procedures 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.

4. NOTES:

4.1 None.

TABLE ONE

<u>SHIP TYPE</u>		<u>FLOW, GPM*</u>
AD	Destroyer Tender	1875
AE	Ammunition Ship	1875
AFS	Combat Stores Ship	1875
AGDS	Miscellaneous Auxiliary Ship	1875
AGF	Miscellaneous Flagship	2500
AGM	Missile Range Instrumentation Ship	1875
AGOR	Oceanographic Research Ship	625
AGS	Surveying Ship	1250
AH	Hospital Ship	1250
AK	Cargo Ship	1875
AKR	Vehicle Cargo Ship	1875
A0	Oiler	1875
AOE	Fast Combat Support Ship	1875
AOG	Gasoline Tanker	1250
AOR	Fleet Replenishment Oiler	1875
AOT	Transport Oiler	1875
AP	Transport Ship	1250
APL	Berthing and Messing Barge	625
AR	Repair Ship	1875
ARC	Cable Repair & Laying Ship	1250
ARS	Salvage Ship	625
AS	Submarine Tender	1875
ASR	Submarine Rescue	625
ATF	Ocean Tug Fleet	625
ATS	Salvage & Rescue Tug	625
BB	Battleship	3500
CG	Guided Missile Cruiser	1250
CGN	Guided Missile Cruiser (Nuclear)	1250
CV	Aircraft Carrier	3750
CVN	Aircraft Carrier (Nuclear)	3750
DD	Destroyer	1250
DDG	Guided Missile Destroyer	1250
FF	Frigate	1250
FFG	Guided Missile Frigate	1250
FFT	Frigate (Reserve Training)	1250
IX	Unclassified Miscellaneous	1875
LCC	Amphibious Command Ship	1250
LCU	Landing Craft Utility	625
LHA/LHD	Amphibious Assault Ship	3125 **
LKA	Attack Cargo Ship	1875
LPD	Amphibious Transport Dock	1875 ***
LPH	Amphibious Assault Ship	3125 **

TABLE ONE
(Continued)

<u>SHIP TYPE</u>	<u>FLOW, GPM*</u>
LSD Landing Ship Dock	2500 ***
LST Landing Ship Tank	1875 ***
MCM Mine Countermeasures Ship	625
MHC Minesweeping Coastal Ship	625
MSO Minesweeper-Ocean	625
PC Patrol Coastal	625
PHM Hydrofoil Missile Patrol Combatants	625
YRB Repair & Berthing Barge	625
YRBM Repair, Berthing & Messing Barge	625
YTB Harbor Tug (Large)	625
YTM Harbor Tug (Medium)	625

* Includes 25 percent for hotel services.

** Includes supply to operate two hangar sprinkler groups and two 2-1/2 inch hose lines.

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