NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-02
DATE: 18 NOV 2016
CATEGORY: I

1. SCOPE:

1.1 Title: Environmental Compliance Report for Material Usage at Naval Facility; accomplish

2. REFERENCES:

2.1 42 USC 7412(b), Clean Air Act, Section 112(b), List of Hazardous Air Pollutants

3. REQUIREMENTS:

3.1 Submit one legible copy, in approved transferrable media, of an Environmental Compliance Report for Material usage at Naval Facility as follows:

3.1.1 Submit applicable permits for portable, registered, or rental emission units to the SUPERVISOR prior to start of work.

3.1.2 Establish a record-keeping program to reflect the manner in which the material records will be maintained and submitted to the SUPERVISOR.

3.1.3 Maintain facility specific records to ensure accurate reporting for all preservation, welding repairs, and fuel consumption for each individual portable internal combustion engine or portable emission unit. Provide the SUPERVISOR sufficient details to track usage of all paints, solvents, adhesives, welding rods, and fuel used for each individual portable internal combustion engine over 50-brake horsepower. Report any other materials used which contain chemicals listed in 2.1.

3.1.4 Maintain current usage records of materials listed in 2.1.

3.1.5 Negative reports are required.

3.1.6 Reports shall contain the following items based upon category of the material.

3.1.7 Paint, solvent, adhesive, and nonskid usage records are to be submitted monthly and shall include the following:

3.1.7.1 Product manufacturer, identification or color

3.1.7.2 Net daily paint usage in gallons, paint application method (airless spray, HVLP, brush, or roller) per paint type, amount of paint disposed as hazardous waste; density of mixed paint; net daily onsite solvent usage in gallons used for equipment cleaning and surface preparation; net amount of adhesives in unit of measure (ounces, quart, gallons or pound)

3.1.7.3 Product Safety Data Sheet (SDS), technical data sheet, VOC certification for paint and nonskid product

3.1.7.4 Government site location, applicable local Air Pollution Control District (APCD) permit number, date, and ship's name

3.1.8 Abrasive blast grit materials used shall be submitted monthly and shall include:

3.1.8.1 Manufacturer of abrasive blast grit and SDS

3.1.8.2 Abrasive blast grit usage certification if required by the cognizant state or local authorities

3.1.8.3 Amount and hourly usage of the abrasive blast grit

3.1.8.4 Permit associated with the abrasive blasting equipment if required by the cognizant state or local authorities

3.1.9 Welding operation report shall be submitted monthly and shall include welding rod manufacturer, specific product used in welding application, SDS, usage in pounds, and type of welding application.

3.1.10 Portable internal combustion (IC) engine greater than 50 brake horse power operation report shall be submitted monthly and shall include:

3.1.10.1 Amount of fuel used in gallons and the hours of operation

3.1.10.2 IC engine permit number and site location if required by the cognizant state or local authorities

3.2 Submit one legible copy, in approved transferrable media, of each report required by 3.1 to the SUPERVISOR no later than 10 days after the end of the month throughout the availability.

4. NOTES:

4.1 Examples of paint and nonskid manufacturers may be Ameron, International, American Safety Technology, or others as applicable.

4.2 Examples of American Welding Society Classifications for welding rod may be E316-16, E7018-AL 308-16, or others. If there is no American Welding Society (AWS) classification assigned, use the product name and circle the product on the SDS.

4.3 Examples of welding applications may be Shielded Metal Arc Weld (SMAW), Gas Metal Arc Weld (GMAW), Flux Core Arc Weld (FCAW), and others.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO:	009-03
DATE:	***01 OCT 2017***
CATEGORY:	I

1. SCOPE:

1.1 Title: Toxic and Hazardous Substance; control

2. REFERENCES:

2.1 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

3. REQUIREMENTS:

3.1 Identify materials that may contain toxic or hazardous substances as listed in Subpart Z of 2.1 that are to be used, removed, or disturbed during work operations.

3.1.1 Conduct and document an initial determination of potential personnel exposure to these materials prior to the start of work.

3.1.1.1 Provide a copy of the documentation, signed by a competent person as defined in 29 CFR 1915.4, to the SUPERVISOR upon request.

3.2 Ensure that work operations comply with the requirements of 2.1 for the use of toxic or hazardous substances and removal or disruption of existing toxic or hazardous substances.

3.3 Ensure that processes or procedures for work operations that can expose personnel to toxic or hazardous substances comply with the requirements of 2.1. At a minimum, address the following: exposure monitoring, method of compliance, engineering and work practice controls, respiratory protection, protective clothing, housekeeping, hygiene facilities and practices, medical surveillance, employee information and training, signs, and recordkeeping.

3.3.1 Submit one legible copy of process(es) or procedure(s), in approved transferrable media, when requested by the SUPERVISOR.

3.4 Provide a notice to the SUPERVISOR and to the Commanding Officer's designated representative ***at least 4 hours, but not more than 24 hours*** prior to commencement of any work operation that ***requires establishment of a regulated area in accordance with*** the requirements of 2.1 (i.e. cleaning of

spaces that have contained flammable or combustible liquids, lead work, cadmium work, asbestos work, etc.)

3.4.1 Post the notice at the ship's Quarterdeck and at all entrances to spaces where work operations will be performed that require posting of warning signs, signs, or establishment of a regulated area.

3.4.2 The notice shall contain the following information:

3.4.2.1 Ship's name and hull number

3.4.2.2 Work Item number

3.4.2.3 Compartment or frame number

3.4.2.4 Identification of hazard

3.4.2.5 Date and time of work process

3.4.2.6 Identification of engineering and work practice controls

3.4.3 Deliver notification of work planned over a weekend or Monday following that weekend to the Commanding Officer's designated representative not later than 0900 on the Friday immediately preceding that weekend.

3.4.4 Deliver notification of work planned on a Federal holiday and on the day following the Federal holiday to the Commanding Officer's designated representative not later than 0900 on the last working day preceding the Federal holiday.

3.5 Provide for isolation and blanking of ship's ventilation systems in work areas to prevent toxic or hazardous substance contamination of ventilation systems or other compartments/spaces.

3.6 Establish regulated areas for monitoring and authorized personnel entry whenever concentrations of the toxic or hazardous substance are in excess of exposure limits as listed in 2.1.

3.7 Monitor the affected areas during work operations to ensure compliance with 2.1. Monitoring shall include adjacent spaces to ensure the work area containments and work practices are effective. Results of surveillance shall be documented and documentation shall be made available to the SUPERVISOR.

4. NOTES:

4.1 The term "hazardous substance" means a substance, which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritant, or otherwise harmful is likely to cause injury.

4.2 Consider ventilation cleaning debris to contain toxic or hazardous substances.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-07
DATE: ***01 OCT 2017***
CATEGORY: I

1. SCOPE:

1.1 Title: Confined Space Entry, Certification, Fire Prevention and Housekeeping; accomplish

2. REFERENCES:

2.1 Standard Items

2.2 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

2.3 29 CFR Part 1910.134, Occupational Safety and Health Standards, Respiratory Protection

2.4 NFPA Standard 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work

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

2.6 American Conference of Government Industrial Hygienists (ACGIH) Threshold Limit Values for Chemical Substances and Physical Agents

2.7 NAVSEA OP-4, Ammunition and Explosives Safety Afloat

2.8 Underwriter Laboratories (UL) Standard 199, Automatic Sprinklers for Fire-Protection Service

3. REQUIREMENTS:

3.1 Comply with the requirements of 2.2 through 2.5 and this item to determine whether or not an explosive or other dangerous atmosphere exists in tanks, spaces, and associated piping, including adjacent tanks, spaces, and piping aboard the ship and control hot work and entry to those spaces to preclude damage to the ship or injury to personnel during the accomplishment of this Job Order.

3.1.1 Submit one legible copy, in approved transferrable media, of a list of tanks or spaces to be opened or certified to the SUPERVISOR at least one day prior to opening the tank or void.

3.1.1.1 Comply with additional requirements of 009-88 of 2.1 when accomplishing work in Collection, Holding and Transfer (CHT) and Motor Gasoline (MOGAS) tanks, spaces, or associated piping.

3.1.1.2 For fuel tanks or spaces that contain or have contained fuel, including F-76 and JP-5, in addition to the atmospheric testing required by 2.2, test for diesel fuel (CAS No. 68334-30-5; 68476-30-2; 68476-31-3; 68476-34-6, 77650-28-3) as total hydrocarbons in accordance with 2.6, and record total hydrocarbon test results on the Marine Chemist Certificate or competent person’s test/inspection record.

3.1.2 Provide initial and annual update training for Competent Persons by utilizing a National Fire Protection Association (NFPA) Certified Marine Chemist or NFPA Instructor. The length of the initial training class shall be at least 24 hours. Annual update training shall be at least 8 hours.

3.1.2.1 Maintain a current roster of designated Competent Person(s) and copies of certificates of completion for the training required in 3.1.2 for reference by the SUPERVISOR. Submit one legible copy, in approved transferrable media, of the specific documents when requested by the SUPERVISOR.

3.1.3 Post a copy of the Marine Chemist Certificate, Certified Industrial Hygienist's test/inspection record, or Competent Person's test/inspection record at each access to the affected space while work in the space is in progress. When requested, a copy of the MCC or test/inspection record shall also be delivered to a location designated by the SUPERVISOR. In the event that the space is identified to be NOT SAFE FOR WORKERS or NOT SAFE FOR HOT WORK, the space shall be posted accordingly and other affected contractors, the SUPERVISOR and Ship’s Force shall be notified immediately. The posted copy shall be clearly visible and legible.

3.1.3.1 Initial certification of spaces that require a Certified MCC or Certified Industrial Hygienist's test/inspection record in support of work operations shall be effective until conditions change which would void the certificate or test/inspection record. A Competent Person shall conduct the same atmospheric testing as required on the MCC or Certified Industrial Hygienist's test/inspection record.

3.1.3.2 For those certified spaces which employees will enter, a Competent Person shall visually inspect, test and record each space certified as ENTER WITH RESTRICTIONS or SAFE FOR WORKERS as often as necessary, and as a minimum, prior to entry by employees on a daily basis. If a space is not to be entered on any given day, it is not required to be

inspected and tested by a Competent Person. The initial MCC remains valid if conditions have not changed, unless noted on the MCC.

3.1.3.3 For those certified spaces affected by hot work, a Competent Person shall visually inspect, test, and record each space certified as SAFE FOR HOT WORK as often as necessary and, as a minimum, daily prior to commencement of hot work to ensure that conditions established by the certificate are maintained. When hot work is continuous, the affected spaces shall be visually inspected, tested, and recorded on a daily basis to maintain the SAFE FOR HOT WORK certification.

3.1.3.4 If a Competent Person finds that the conditions within a certified space fail to meet the applicable requirements for which it was certified, work in the space shall be stopped and may not be resumed until the space has been recertified by a Marine Chemist.

3.1.3.5 For those spaces where only Competent Person tests and inspections are required in accordance with 2.2, a Competent Person shall visually inspect and test each space as often as necessary and, as a minimum, daily prior to entry or commencement of hot work to ensure that conditions are safe.

3.1.3.6 After the Competent Person has determined initially that a space is safe for entry and finds subsequently that the conditions within the tested space fail to meet the requirements of 2.2, work shall be stopped until the conditions in the tested space are corrected, the space is retested, reinspected, and a new record of tests/inspections is recorded and posted.

3.1.3.6 Allow Navy civilian and military personnel to enter under the certificate or test / inspection record for inspection purposes.

3.1.4 Tank cleaning personnel shall be trained annually on safety practices to include a discussion of safety information identified in Subparts A, B, and Section 1915.152 of Subpart I of 2.2.

3.1.5 Maintain a current roster of the names of the Shipyard/Plant Rescue Team Members, along with contractor certification that training requirements of Subpart B of 2.2 have been accomplished and are current for each Rescue Team Member, or documentation of arrangements made for an outside rescue team to respond promptly to a request for rescue service in a contractor facility. Submit one legible copy, in approved transferrable media, of the specific documents when requested by the SUPERVISOR.

3.1.5.1 At a naval facility, the Navy will respond.

3.1.6 Spaces that are determined to contain Immediately Dangerous to Life or Health (IDLH) atmospheres shall never be entered except for emergency rescue or for short duration for installation of ventilation equipment in accordance with 2.2 and 2.3. When entering IDLH spaces for the purpose of installing ventilation, notify the SUPERVISOR prior to entry.

Notifications of rescue shall be made as soon as management becomes aware of such an event.

3.1.7 Confirm that all personnel have exited the space prior to closure of tanks, voids, and cofferdams. Designate one person to account for all personnel who may have entered the space.

3.2 Provide a written notice for each job or separate area of hot work aboard ship.

3.2.1 The notice shall state a description of the work to be done, the specific location, to include compartment number, of the hot work, and compartments adjacent to decks, bulkheads, and similar structures upon which hot work is to be accomplished, the time hot work will commence, current gas-free status of the area (if required), the absence or existence of combustible material within 35 feet in any direction of the operation (or further, if affected by the operation), and if combustible material exists, what action shall be taken to protect the material from fire, the provision and assignment of a fire watch, and the affirmation that conditions at the work site (ventilation, temporary lighting, accesses) permit the fire watch(es) to have a clear view of and immediate access to all areas included in the fire watch.

3.2.2 The notice shall affirm that a suitable, fully-charged fire extinguisher shall be available at the job site and provide for an inspection of the area 30 minutes after completion of the hot work or the cessation of hot work at the job site unless the contractor's Hot Work Supervisor surveys the affected work area and determines that there is no further fire hazard as the final action to complete the notice.

3.2.3 The notice shall be signed by a supervisor specifically designated as responsible for coordination of the hot work and the fire watch requirement for each shift where hot work is being conducted.

3.2.4 One copy of each notice shall be given to the SUPERVISOR when requested and one copy to the Commanding Officer's designated representative, and at a minimum, one copy of each notice shall also be conspicuously posted at the location where the hot work is being accomplished.

3.2.4.1 The notice to the Commanding Officer's designated representative shall precede the initiation of the actual hot work in order to permit the Commanding Officer to designate a member of the crew to observe the operation, if desired.

3.2.4.2 Deliver written notification of hot work planned Tuesday through Friday to the Commanding Officer's designated representative at least 30 minutes and not more than 24 hours preceding start of work.

3.2.4.3 Deliver written notification of hot work planned over a weekend or Monday following that weekend to the Commanding Officer's

designated representative no later than 0900 on the Friday immediately preceding that weekend.

3.2.4.4 Deliver written notification of hot work planned on a federal holiday and on the day following the federal holiday to the Commanding Officer's designated representative no later than 0900 of the last working day preceding the federal holiday.

3.2.4.5 The notice shall be effective for 24 hours unless a shorter period is specified in the contract or the gas-free status of the work area or system requires stopping the work. A new notice is required if work is interrupted due to loss of gas-free status.

3.3 Provide trained fire watches, at all affected areas where hot work is being accomplished. Provide fire extinguishing equipment as described in 2.2, 2.4, and 2.5.

3.3.1 The program utilized to train fire watches shall be in accordance with the requirements of 2.2 and 2.4, and include steps to be taken by the fire watch and hot work operator prior to accomplishment of hot work, proper selection and use of fire extinguishing equipment and other safety equipment, relationship between the fire watch and hot work operator, proper fire reporting procedures and other sounding of fire alarms, and reporting of fires to the ship's Quarterdeck. A means of communicating between all fire watches and their corresponding hot workers shall be provided. This training shall include theory and practical (hands-on) fire suppression techniques. This training shall be provided to all newly assigned fire watches, with annual updates provided to personnel. Provide visible means of identifying trained fire watches, i.e., badge, sticker, vest, etc.

3.3.1.1 Submit one legible copy, in approved transferrable media, of the training program when requested by the SUPERVISOR.

3.3.2 Each fire watch attending worker(s) accomplishing hot work shall be equipped with a fully-charged and operable fire extinguisher, have immediate access and an unobstructed view of the affected hot work area to which they are assigned and shall remain at the job site for 30 minutes from the time the hot work is completed unless the contractor's Hot Work Supervisor surveys the affected work area and determines that there is no further fire hazard.

3.3.2.1 The fire watch shall not accomplish other duties while hot work is in progress.

3.3.3 Where several workers are accomplishing hot work at one site, the fire watch shall have a clear view of and immediate access to each worker accomplishing hot work.

3.3.3.1 No more than 4 workers shall be attended by a single fire watch.

3.3.4 In cases in which hot material from hot work may involve more than one level, as in trunks, machinery spaces, and on scaffolding, a fire watch shall be stationed at each level unless positive means are available to prevent the spread or fall of hot material.

3.3.5 In cases where hot work is to be accomplished on a bulkhead or deck, combustible material shall be removed from the vicinity of the hot work on the opposite side of the bulkhead, overhead, or deck, and a fire watch shall be posted at each location.

3.3.5.1 If multiple blind compartments are involved in any hot work job, fire watches shall be posted simultaneously in each blind area.

3.3.6 Comply with the firefighting and fire prevention requirements of 2.7 prior to hot work operations in or adjacent to areas containing ammunition or explosives.

3.3.6.1 Hot work shall not be conducted during any logistics or maintenance movement of ammunition or explosives.

3.3.7 No hot work shall be performed without an operational general announcing system, i.e., Ship’s 1MC, or a documented communication strategy approved by the SUPERVISOR.

3.4 Locate oxygen, acetylene, fuel gas, toxic, oxygen depleting (OD) gas supply systems off the ship. Manifolds connected to pierside supply systems may be placed on board ships as long as they are located on a weather deck and equipped with a shutoff valve located on the pier. The pierside shutoff valve shall be in addition to the shutoff valve at the inlet to each portable outlet header required by 2.2.

3.4.1 Oxygen, acetylene, fuel gas, toxic, and OD gas supply systems shall be stored to prevent collisions by trucks, forklifts, falling objects, etc.

3.4.2 ***Liquid oxygen*** (LOX) tanks shall be staged in designated locations on the quay wall/pier to be determined jointly by the contractor, Ship's Force, and the SUPERVISOR.

3.4.3 When gas cylinders are in use on board ship, they shall be located on the weather decks or in a location determined jointly by the contractor, Ship's Force, and the SUPERVISOR and shall be secured in cylinder racks, and in an upright position. The number of in-use cylinders shall be limited to those which are required for work in progress and which have pressure regulators connected to the cylinder valves. On-board reserve gas cylinders shall not exceed one-half the number of in-use cylinders and shall be located in a remote area of the weather decks or in a location determined

jointly by the contractor, Ship's Force, and the SUPERVISOR. Reserve acetylene cylinders shall be secured in an upright position.

3.4.4 When not in use, gas cylinders and manifolds on board shall have valves closed, lines disconnected, protective cover (cap) in place, and shall be secured. Acetylene cylinders shall be secured in cylinder racks and in an upright position.

3.5 Each fuel gas and oxygen hose run shall be positively identified with durable unique markings that include maintenance activity name, service type, location, and shore side shut-off points. Tags shall be located (at a minimum) at the source, point of entry aboard ship, at each connection point (including quick disconnects), and termination point.

3.5.1 Unattended fuel gas and oxygen hose lines or torches are prohibited in confined spaces.

3.5.2 Unattended, charged fuel gas and oxygen hose lines or torches are prohibited in enclosed spaces for more than 15 minutes.

3.5.3 All fuel gas and oxygen hose lines shall be disconnected at the supply manifold at the end of each shift.

3.5.4 All disconnected fuel gas and oxygen hose lines shall be rolled back to the supply manifold or to open air to disconnect the torch; or extended fuel gas and oxygen hose lines shall not be reconnected at the supply manifold unless the lines were given a positive means of identification when they were first connected and the lines are tested using a drop test to ensure the integrity of fuel gas and oxygen burning system. Alternate procedures must be approved by the SUPERVISOR.

3.5.5 Upon completion of oxygen-fuel gas system hook-up, accomplish a pressure drop test to include the torch, hoses, and gages.

3.5.5.1 Apply pressure to the system. Back off pressure by turning off the valve supplying gases to the system. If the pressure on the gage drops, a leak in the system exists. If the pressure on the gage does not drop, the system is tight.

3.5.5.2 After applying pressure, wait 2 minutes to ensure pressure does not drop.

3.5.6 The use of gas hose splitters is prohibited.

3.6 Each inert gas/oxygen depleting (OD) hose run shall be positively identified with durable unique markings that include maintenance activity name, service type, location, and shore side shut-off points. Tags shall be located (at a minimum) at the source, point of entry aboard ship, at each connection point (including quick disconnects), and termination point.

3.6.1 Unattended inert gas/OD hose lines or torches are prohibited in confined spaces.

3.6.2 Unattended, charged inert gas/OD hose lines or torches are prohibited in enclosed spaces for more than 15 minutes.

3.6.3 All inert gas/OD hose lines shall be disconnected at the supply manifold at the end of each shift.

3.6.4 All disconnected inert gas/OD hose lines shall be rolled back to the supply manifold or to open air to disconnect the torch; or extended inert gas/OD hose lines shall not be reconnected at the supply manifold unless the lines were given a positive means of identification when they were first connected and the lines are tested using a drop test to ensure the integrity of inert gas/OD systems. Alternate procedures must be approved by the SUPERVISOR.

3.6.5 Upon completion of inert gas/OD gas system hook-up, accomplish a pressure drop test to include the torch, hoses, and gages.

3.6.5.1 Apply pressure to the system. Back off pressure by turning off the valve supplying gases to the system. If the pressure on the gage drops, a leak in the system exists. If the pressure on the gage does not drop, the system is tight.

3.6.5.2 After applying pressure, wait 2 minutes to ensure pressure does not drop.

3.6.6 The use of gas hose splitters is prohibited.

3.7 Use fireproof or fire-retardant covering in accordance with MIL-C-24576, such as fireproofed canvas, fire-resistant synthetic fabrics, non-combustible fabrics, metal covers in accordance with ASTM D6413, or other suitable materials, to protect ship’s equipment from falling sparks or other potential sources of fire. Coverings shall be in place prior to commencing hot work and be maintained throughout the hot work evolution. Proper documentation of fire retardancy shall be available for review upon request.

3.7.1 Non fire-retardant temporary wooden structures located on the pier, dry dock edge, or in the dry dock (not including dry dock blocks) shall be a minimum of 35 feet from the ship to prevent spread of fire.

3.7.2 Lumber, plywood, and staging boards, except that used for pallets, shall be fire retardant in accordance with Category Two, Type II, of MIL-L-19140.

3.7.3 Storage of material aboard ship shall be limited to that which is required for work in progress. Materials, trailers, temporary lights, flammable liquids, fueling of vehicles, and the rigging of hoses/welding leads/temporary lights aboard the ship shall comply with the

following: Material, including that stowed in bins that are placed and held temporarily on hangar decks, well decks, or tank decks shall not exceed 8 feet in height. A 20-foot-wide lane shall be maintained the length of hangar decks to act as a fire break. Material shall occupy a deck space not to exceed 25-feet by 25-feet with adjacent 6-foot-wide aisles on each side for ready hose line access.

3.7.4 Prior to bringing equipment or working material aboard ship, its crating and packing shall be removed. If the equipment or material may be damaged during handling, the crating and packing shall be removed immediately after the equipment or working material is brought aboard and taken ashore for disposal. A small quantity of pallets may be staged in a location determined jointly by the contractor, Ship's Force, and the SUPERVISOR aboard ship for use in materials handling operations.

3.7.5 Install sprinkling systems on temporary structures constructed or staged onboard for the purpose of material stowage.

3.7.5.1 Identify sprinkler and open sprinkler pendent, upright or sidewall type. The type shall be most suitable for the shape and configuration of the protected area. Pendent and upright sprinklers shall have 180 degree full cone spray patterns. The sprinkling density shall be 0.2 gpm/sqft and the sprinklers shall be arranged to cover the entire level of the temporary structure and all contents. Follow the manufacturer’s instructions for spacing of sprinklers, distance from the overhead of the protected area, and distance from stowed material or obstructions. Place placards on the interior of the protected area and note the height that material cannot be stacked above.

3.7.5.2 The system shall be a dry deluge type, manually operated by a quarter-turn sprinkler valve located outside and near the access to the structure. The system shall be continuously charged up to the sprinkler valve, from the ship’s permanent or temporary firemain, using temporary piping or a non-collapsible hose suitable for the pressure and flow. Piping downstream of the sprinkler valve shall be metal. Aluminum shall not be used for piping. Place a placard at the sprinkler valve identifying the protected area and providing instructions on operating the sprinkler valve. Provide freeze protection with the water supply

3.7.5.3 Automatic sprinklers, with the heat responsive and activating elements removed, may be substituted for open (deluge) sprinklers.

3.7.5.4 CONEX boxes/MILVANs staged within the ship for material storage or other operational purposes shall be of all steel exterior construction and be capable of being completely sealed closed. Only Class A type combustibles and non-combustibles are permitted to be stored within such structures and they shall remain completely sealed closed when not being physically manned. When such structures are used as manned office or operating spaces (including temporary Enclosed Operating Stations), they shall be equipped with smoke detection in accordance with 2.8 and shall have

at a minimum, one fire extinguisher of appropriate size and class at each access. The use of kitchen appliances (microwaves, coffee makers, hot pots, etc.) and hot work within the unit is prohibited.

3.7.5.5 Smoke alarms, approved by Underwriter's Laboratory, shall be installed in enclosures and shall be audible outside the enclosures.

3.7.6 Install sprinkling system on each temporary structures constructed or staged onboard not for the purpose of material stowage. The sprinkling density shall be 0.1 gpm/sqft and the sprinklers shall be arranged to cover the entire level of the temporary structure and all contents. The system shall be a wet automatic type. The system shall be continuously charged up to the sprinkler, from the ship’s permanent or temporary firemain. Place a placard at the sprinkler valve identifying the protected area and providing instructions on operating the sprinkler valve. Provide freeze protection with the water supply. Operation of the sprinkler system shall sound an audible alarm outside the structure. Install smoke detection system inside the structure. Provide audible alarms both inside and outside the structure. Provide portable AFFF and CO2 extinguishers interior to the structure near the access.

3.7.7 The quantity of flammable and combustible liquids brought onboard shall be kept to a minimum, shall not exceed that necessary for one shift’s use, and shall not be left unattended.

3.7.8 Fueling of vehicles or transfer of fuel between containers shall be accomplished at designated sites on weather decks or in a location determined jointly by the contractor, Ship's Force, and the SUPERVISOR. Notify ship's Officer of the Deck prior to the fueling or transfer operation. When fuel is transferred between containers, the containers shall be bonded and grounded to prevent static discharge. Fueling operations shall be conducted at designated sites on exposed weather decks. All fuel shall be transferred aboard ship in approved safety containers. Direct fueling of vehicles aboard ship shall be avoided but may be utilized during operations via an approved fuel storage tank on the weather deck (flight deck, Helo deck, or deck edge elevator) provided the following safety precautions are provided and maintained by the performing activity:

3.7.8.1 Fuel storage tanks shall be either of double wall construction or have integral cofferdam sized to exceed tank capacity.

3.7.8.2 Locate fuel storage tanks in a location approved by the SUPERVISOR, open to atmosphere on an exposed weather deck and not in interior spaces where a build-up of fuel vapors would be of concern.

3.7.8.3 Fuel storage tanks shall be inspected and verified by safety personnel to meet safety requirements.

3.7.8.4 Perform and document weekly inspections of the fuel storage tanks.

3.7.8.5 Provide 2 dry chemical fire extinguishers, each with an Underwriter's Laboratory rating of at least 60 B:C, for each fuel storage tank.

3.7.8.6 Post signs at each storage tank designating ownership and contact numbers in the event of an emergency.

3.7.8.7 Stage an Oil and Hazardous Substance Spill Response Kit at each fuel storage station.

3.7.8.8 Install metal coamings 4 inches high, tack welded and caulked to the deck, around all through-deck access openings to control flammable liquid spills. Modifications from this requirement based on location of the access openings may be approved by the SUPERVISOR.

3.8 Utilize the ship's permanent and emergency lighting and power as the preferred systems. Plan and execute work in such a manner that the ship's permanently installed lighting and power systems will be out of service for the minimum amount of time.

3.8.1 Install temporary lighting for ship's lighting systems that are non-operational or require additional illumination.

3.8.2 Provide 2 sources of lighting to all spaces that normally have 2 sources for ship's lighting systems that are non-operational. The lighting may be the ship's permanent and emergency lighting systems or a combination of temporary and ship's permanent lighting, provided that separate power sources are utilized for each system. The removal of lighting from spaces or compartments that could impede damage control efforts, personnel egress, and/or casualty responder access shall require approval by the SUPERVISOR prior to removal.

3.8.3 Permanent or temporary lighting shall meet the illumination requirements of 2.2.

3.9 Accomplish temporary access requirements as follows:

3.9.1 Temporary access cuts may be made in fire zone boundaries provided they are equipped with fume-tight steel closures when installed. Boundary degradation by use of temporary access cuts or passage of service lines shall be permitted only upon granting of a written waiver by the SUPERVISOR, in conjunction with the Commanding Officer's designated representative, for a limited time.

3.9.1.1 Submit one legible copy, in approved transferrable media, of a record of boundary openings and their locations to the SUPERVISOR and one additional copy to the Commanding Officer's designated

representative. Resubmit boundary opening data when any changes, additions, or deletions of boundary openings occur.

3.9.2 Ensure at least one unobstructed access on ships designed with 3 or fewer accesses to each main and auxiliary machinery space and at least 2 unobstructed accesses on ships designed with 4 or more accesses to each main and auxiliary machinery space.

3.9.3 Stage fire retardant material adjacent to the ship to provide for temporary closure of access cuts, hatches, and other hull penetrations created by contractor work (e.g., access cuts and open hatches due to running of temporary services).

3.10 Accomplish a fire prevention and housekeeping inspection during each shift whenever work is in progress. Once each manned/regular workday, the inspection shall be made jointly with the SUPERVISOR and the Commanding Officer's designated representative. Deviation from this requirement for availabilities less than 30 days in duration must be adjudicated by the SUPERVISOR.

3.10.1 Submit one legible copy, in approved transferrable media, of request for deviation to the SUPERVISOR.

3.10.2 Submit one legible copy, in an approved transferrable media, of a written report of the discrepancies and corrective actions, using Attachment A, to the SUPERVISOR and the Commanding Officer's designated representative within 4 hours after completion of the inspection.

3.10.3 ***Provide a safety representative to accomplish the fire prevention and housekeeping inspection who at a minimum has completed the training required in para 3.1.2 and the following OSHA Training Institute (OTI) courses or NAVSEA approved equivalents: Occupational Safety and Health Standards for the Maritime Industry, 5410; 3095; Electrical Standards.***

3.10.3.1 ***Submit one legible copy, in approved transferrable media, of the certificates of completion for the required courses upon request by the SUPERVISOR.***

3.11 Determine fire zone boundaries as follows:

3.11.1 The SUPERVISOR, Ship's Force, and the contractor shall establish fire zone boundaries prior to start of production work.

3.11.1.1 For ships having fire zones by design, the designated bulkheads shall be used as fire zones. Ships under 600 feet in length that do not have fire zones by design shall have a minimum of 2 fire zone boundaries. Ships 600 feet and over in length that do not have fire zones by design shall have a minimum of 3 fire zone boundaries.

3.11.2 Fire zone boundaries shall be continuous through the vertical extent of the ship, from the keel up to the highest weather deck, excluding the superstructure.

3.11.2.1 For ships that have established fire zone boundaries that run from keel up through the superstructure, the fire zone boundaries as depicted on the ship's damage control diagrams shall be observed.

3.11.2.2 On aircraft carriers, provide for closing of hangar division doors in case of fire in the event division doors being repaired by the contractor are mechanically inoperative. As a minimum, rig chain falls to manually close doors in the event of fire. Exceptions shall be permitted only upon execution of a written waiver approved by the SUPERVISOR.

3.11.3 Indicate each fire zone by installing a sign adjacent to each entrance. Mark each sign with international orange tape.

3.11.3.1 Service line(s) shall not be run through fire zone boundaries unless quick disconnects are installed in temporary service lines within 6 feet of the opening, door, or closure. The quick disconnects shall be marked with international orange tape and be positively identified with durable unique markings that include the maintenance activity name, service type, location, and shore side shut-off points. All service line(s) shall be able to be secured and pulled back within 3 minutes. Fuel gas/oxygen/compressed gas hoses, steam lines, hoses pressurized above 140 PSI, or hoses carrying hazardous/toxic/flammable materials shall not be run through fire zone boundaries. Hose numbers or sizes shall not restrict free and easy access or closure of fire zone boundary doors.

3.11.3.2 Request for deviation shall be in writing to the SUPERVISOR and shall include the following; rational for deviation, location(s) and duration of each deviation, description of services that will violate any fire zone boundary, hazards associated with services, and the hazard mitigation plan(s).

3.1**2** Ensure access to temporary and Ship’s Force firefighting equipment is not obstructed or restricted.

3.12.1 Ensure Ship’s Force firefighting equipment is not relocated without written authorization from the SUPERVISOR. Provide a secure, Ship’s Force accessible temporary storage facility for firefighting equipment that is moved from its original location.

3.1**3** Conduct a firefighting and fire prevention conference in conjunction with the arrival conference or no later than 5 days after start of the availability for availabilities in excess of 30 days. This conference shall familiarize Ship’s Force with the contractor’s fire safety and fire response plan for fire prevention and firefighting and with the procedures that will be in use by the contractor and the region/installation or municipal fire and emergency services, as well as familiarize the contractor and the

region/installation or municipal fire and emergency services with the ship arrangement, shipboard fire prevention, and firefighting 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 firefighting.

3.13.1 The conference shall specifically address the following matters:

3.1**3**.1.1 Fire alarm and response procedures

3.1**3**.1.2 Contractor firefighting capability and procedures

3.1**3**.1.3 Region/installation or municipal fire and emergency services firefighting capability and procedures

3.1**3**.1.4 Firefighting jurisdictional cognizance and incident command procedures

3.1**3**.1.5 Communication system for fire reporting and control or firefighting efforts

3.1**3**.1.6 Shipboard arrangement including access routes, availability or firefighting systems (installed and temporary), fire zone boundaries, and communication systems

3.1**3**.1.7 ***Each*** shipboard firefighting organization, system, drill, and equipment to include rehabilitation procedure.

3.1**3**.1.8 Ship, space, and equipment security consideration

3.1**3**.1.9 Compatibility of ship, contractor, and region/installation or municipal fire and emergency services firefighting equipment

3.1**3**.1.10 Industrial work scope, including location of ship, and effect on firefighting systems, access, and communications

3.1**3**.1.11 The roles, responsibilities, and membership of the Fire Safety Council (FSC). Include the requirement to obtain permission from the FSC to perform work that affects the fire safety posture (e.g., securing the firemain, securing the 1MC, undocking, transferring fuel/lube oil) of the ship.

3.1**3**.1.12 Hotwork monitoring and confined space practices.

3.1**3**.2 The firefighting and fire prevention conference shall include a table top fire drill.

3.1**4** Conduct a tour of the ship for Naval installation fire and emergency services/or 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.

3.1**6** Provide 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 or anytime during the availability that the ship's power is not available as an emergency back-up to installed shore power.

4. NOTES:

4.1 In addition to CHT and MOGAS tanks, Hydrogen sulfide (H_2S) may be found in AFFF, seawater, and firemain systems.

4.2 Booklet of General Plans and Tank Sounding Tables are available for review at the office of the SUPERVISOR.

4.3 A "quick disconnect" is a coupling or connecting device/system designed to permit easy and immediate separation of lines without the use of tools and to ensure the contents do not escape.

4.4 Shipboard fixed extinguishing systems such as Halon and CO2 are to be secured or isolated only at the discretion of the ship's Commanding Officer or designated representative. Employees should be trained as required by 2.2 before entering/working in spaces with active shipboard fixed extinguishing systems.

4.4 ***The term "annual" means once a year, not-to-exceed 12 months.***

Fire Zone Boundaries

ESH Discrepancy and Corrective Action Log

Attendees

Ship name/hull number:
Location:
Prime Contractor:

Date: Time:

No.	Point of Contact	Date Identified	Date Corrected	Location	Discrepancy	Corrective Action

Type Codes: 1-Housekeeping, 2-Fire Prevent./Fire Equipment, 3-Hot Work., 4-FZ Boundary, 5-Electrical, 6-Compress Gas/Hoses/Bottles/Manifolds, 7-Scaffolding, 8-Egress/Exit, 9- Walking/Working Surfaces, 10-PPE, 11- Containment, 12-Unguarded/Edges/Holes/Openings/Fall Protection, 13-Confined/Enclosed Spaces, 14-Lines & Leads Hazards, 15-Equip. Adrift & Rollback, 16-Ventilation, 17-Machine Guarding/Hand Tools, 18-Crane/Rigging, 19-Environmental & Hazardous Material/Communication, 20-Environmental Protection, 21-General Safety

ATTACHMENT A

ESH DISCREPANCY AND CORRECTIVE ACTION LOG INSTRUCTIONS

1- Fire Zone Boundaries: List the designated Fire Zone Boundaries.
2- Attendees: List Company and or Command and names of personnel present for walk thru.
3- Ship Name/Hull Number: Indicate ship name and hull number of the location of the walk thru.
4- Location: Indicate location where ship is moored or docked, i.e. name of contractor facility or pier at Naval Base or Station.
5- Prime Contractor: Indicate prime contractor who has the contract with the SUPERVISOR.
6- Date: Indicate date of walk thru being accomplished.
7- Time: Indicate start time (24 hour clock) of walk thru being accomplished.
8- No. (number): List sequentially, each discrepancy noted during the walk thru. Number will continue where the numbering left off the previous day, until the end of the availability.
9- Point of Contact: Indicate Company/Command identified with the discrepancy.
10- Date Corrected: Date condition was corrected. If condition is not corrected, condition will be carried over to the next walk thru until condition is corrected.
11- Location: Indicate location of the condition, i.e. space number or frame number.
12- Discrepancy: Indicate condition that needs corrective action, be specific as necessary.
13- Corrective Action: Indicate corrective action taken to correct the condition and who is responsible for the corrective action.
14- Code: Indicate code, located at the bottom of ATTACHMENT A that condition can be grouped with, i.e. lines on deck causing trip hazard would use code 14- Lines and Leads Hazards.

Type Codes: 1-Housekeeping, 2-Fire Prevent./Fire Equipment, 3-Hot Work., 4-FZ Boundary, 5-Electrical, 6-Compress Gas/Hoses/Bottles/Manifolds, 7-Scaffolding, 8-Egress/Exit, 9- Walking/Working Surfaces, 10-PPE, 11- Containment, 12-Unguarded/Edges/Holes/Openings/Fall Protection, 13-Confined/Enclosed Spaces, 14-Lines & Leads Hazards, 15-Equip. Adrift & Rollback, 16-Ventilation, 17-Machine Guarding/Hand Tools, 18-Crane/Rigging, 19-Environmental & Hazardous Material/Communication, 20-Environmental Protection, 21-General Safety

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-08
DATE: ***01 OCT 2017***
CATEGORY: I

1. SCOPE:

1.1 Title: Shipboard Fire Protection and Fire Prevention; accomplish

2. REFERENCES:

2.1 NFPA Standard 312, Standard for Fire Protection of Vessels During Construction, Conversion, 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

2.4 NFPA Standard 14, Standard for Installation of Standpipe and Hose Systems

2.5 NFPA Standard 1961, Standard on Fire Hose

2.6 NFPA Standard 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

3. REQUIREMENTS:

3.1 Plan and execute all work to minimize the use of temporary firefighting systems. When the scope of work allows, the ship's firemain system shall provide the ship's firefighting capability.

3.1.1 Firemain system repairs or modifications that reduce the coverage or damage control capability of the ship's firemain shall be coordinated through the use of jumpers and/or temporary fire hose manifold stations in affected areas to restore firefighting capabilities.

3.1.2 Use of temporary firefighting systems shall be approved by the SUPERVISOR.

3.2 Provide fire protection in accordance with 2.1 through 2.4.

3.3 Establish, document, implement, and maintain a Shipboard Temporary Fire Protection Plan when temporary fire protection is needed. The plan shall include, at a minimum, the following elements:

3.3.1 Fire pump manual(s), operating instructions, and performance specifications

3.3.2 Temporary firefighting and dewatering equipment inventory

3.3.3 List of each ship compartment (by space number) and corresponding uniquely numbered temporary fire hose manifold station(s) providing coverage to that compartment

3.3.4 Identification of which hoses/pipes are charged/not charged

3.3.5 Diagram of temporary firemain system, to include the following elements:

3.3.5.1 Diameter, length, and connection path of each distribution hose/pipe (See Note 4.3)

3.3.5.2 Location of each temporary fire hose manifold station and its elevation relative to the fire pump(s).

3.3.5.3 Connection locations to shore side water supply.

3.4 Submit one legible copy, in hard copy or approved transferrable media of the initial Shipboard Temporary Fire Protection Plan to the SUPERVISOR for approval and posting no later than 10 days prior to placing any section of the ship’s firemain out of service.

3.4.1 Submit one legible copy, in hard copy or approved transferrable media of an updated Shipboard Temporary Fire Protection Plan prior to any modification to the plan after initial approval.

3.5 Train ship’s force on the Shipboard Temporary Fire Protection Plan at least one day prior to securing ship’s firemain and no later than one day prior to entering dry dock, graving dock, or marine railway.

3.6 Provide temporary fire protection equipment as follows:

3.6.1 Each fire hose shall be:

3.6.1.1 Manufactured with National Hose/National Pipe Straight Hose (NH/NPSH) fittings (NH for 2 and one-half inch and larger hoses, and NPSH for one and one-half inch couplings to ensure compatibility with shipboard equipment).

3.6.1.2 Inspected and service-tested in accordance with 2.2 within 90 days prior to being placed in service for the first time and annually thereafter.

3.6.1.3 Cotton or synthetic double jacketed manufactured to the requirements of 2.5 or in accordance with MIL-H-24606B.

3.6.2 Each fire hose nozzle shall be:

3.6.2.1 One and one half inch combination straight stream and spray pattern nozzles, conforming to MIL-N-24408, rated for 125 gallons per minute (GPM) at 100 pounds per square inch (PSI).

3.6.2.2 Pre-connected to the end of each handline hose and maintained operational. (See Note 4.4)

3.6.3 Each temporary fire hose manifold station shall:

3.6.3.1 Be provided in sufficient numbers such that all parts of the ship, including the interior of temporary structures, can be reached by a 10 foot fog stream from at least 2 each, 100 foot lengths of one and three-quarters inch handline hose.

3.6.3.2 Have, at a minimum, ***three handline outlets, each individually valved from each temporary fire hose manifold station. Each handline outlet shall be one and one half-inch NPSH thread.***

3.6.3.3 Have distribution hoses of sufficient size to meet a minimum of 95 GPM and 60 PSI residual nozzle pressure at the end of each one and three-quarters inch handline hose.

3.6.3.4 Have 2 each, 100 foot lengths of one and three-quarters inch handline hose manufactured with one and one-half inch NPSH couplings pre-connected to temporary fire hose manifold station valve outlets and faked on racks nearby.

3.6.3.5 Have pressure gages installed with a 0 – 250 ***(plus or minus*** 50) PSI range.

3.6.3.6 Have a 0 – 250 ***(plus or minus*** 50) PSI range calibrated gage installed on the hydraulically most remote temporary fire hose manifold station.(See Note 4.2).

3.6.3.7 Have operating instructions posted on each temporary manifold station with sources of water identified. Instructions must endure the repair process, stay attached, and be legible the entire time the station is on board.

3.6.4 Each primary fire pump shall:

3.6.4.1 Have functioning auto start capability.

3.6.4.2 Provide GPM flow specified in Attachment A uninterrupted at a minimum of 150 PSI measured at the most remote shore side outlet providing firemain water to the ship.

3.6.4.3 Maintain constant pressure automatically without manually manipulating valves.

3.6.5 Each back-up fire pump shall:

3.6.5.1 Be equivalent to primary fire pump(s), powered from a source(s) different than that powering the primary fire pump(s), and be pre-installed in the temporary fire protection system.

3.6.6 Ensure when ship's firemain system cannot be used, portable fire pump(s) capable of providing a total of 500 GPM at 100 PSI shall be on board the ship during berth shifts, transits to and from Naval facilities, dockings, undocking's. The pump shall be connected to the ship's firemain system or the temporary firemain system prior to ship movement.

3.6.7 Ensure all engine driven equipment providing emergency services (firefighting water, power, and lighting) are equipped with a functioning audible low fuel level alarm capable of producing a continuous 110dBA ***(plus*** 0 ***or minus*** 25 decibel) signal.

3.6.8 When connection of the shore supply to the ship's Firemain Shore Connection fitting is not possible. Ensure a tri-gate hose connection compatible with the ship's portable fire pumps is used to connect to the ship's fire plugs, to permit ship's firemain to remain in service while also acting as shore firemain connection.

3.6.9 Provide and install distribution hoses connected to the ship's permanent firemain or temporary firemain in sufficient number to deliver the fire protection capacity specified ***in*** Attachment A. This shall be determined by dividing the water supply capacity from Attachment A (plus cooling and flushing loads) by the hose line capacity for the chosen distribution hose/pipe diameter. (See Note 4.1 for example).

3.6.9.1 The number of hoses connected to the ship from the shore shall not be reduced when the ship's firemain becomes operational unless the permanently installed pumping capacity of the ship can meet the entire fire protection water supply requirement of Attachment A plus cooling and flushing loads.

3.6.10 Unpressurized 2 and one-half inch drop lines, supplied from a temporary hose manifold station, with a 2 and one-half inch NH by one and one-half inch NPSH by one and one-half inch NPSH hose fittings may be utilized to provide coverage to the lowermost compartments (tanks and voids) that are inaccessible with a 100 feet of handline hose, approved by the SUPERVISOR.

3.6.11 Equip temporary firemain systems with a minimum of 2 isolation valves from shore side supply prior to entry to the temporary firemain system. Place additional isolation valves in the remainder of the temporary firemain system so that the maximum distance between any 2 adjoining valves does not exceed 200 feet.

3.7 Provide emergency fire protection equipment as follows:

3.7.1 Install a temporary fire alarm system on the quarterdeck configured to send a signal directly to the cognizant fire department, shipyard/Naval facility fire department, or a continuously manned location within the shipyard/Naval facility where trained personnel can take immediate action to transmit an alarm.

3.7.1.1 Temporary fire alarm devices placed aboard ship shall be a fire alarm pull box, non-dial telephone, or as approved by the SUPERVISOR.

3.7.1.2 Provide a telephone on the quarterdeck, in addition to the temporary fire alarm system, as an alternate means of calling the cognizant fire department, shipyard/Naval facility fire department, or a continuously manned location within the shipyard/Naval facility where trained personnel can take immediate action to transmit an alarm.

3.7.1.3 Conspicuously post the emergency reporting procedures at the quarterdeck.

3.7.1.4 Test the temporary fire alarm system daily. Repair or replace defective or inoperative equipment immediately. Submit one legible copy, in hard copy or approved transferrable media, of the test report for the temporary fire alarm system, when requested by the SUPERVISOR.

3.7.2 Provide dewatering equipment to include a sufficient number of pumps capable of providing 100 GPM minimum each and a total dewatering capability equal to at least one-half of the supply GPM specified in Attachment A.

3.8 Develop and implement a written Fire Safety and Emergency Fire Response Plan in accordance with 2.3. In addition to the requirements of 2.3, the plan shall identify:

3.8.1 Each integrated fire protection system in effect during the performance of the maintenance availability.

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

3.8.3 Details of all communication links (telephones, drop boxes, alarms, horns) location, testing interval, and interface with shore side response systems.

3.8.4 Each normal and emergency source of electric power, firefighting water, lighting, testing interval, and interface with shore side response systems.

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

3.8.6 Each organization to be used, designation of responsibility for all shifts, training, anticipated response times, and interface with shore side response units.

3.8.7 Ensure general procedures for directing contractor employees on fire reporting, fire responses, firefighting actions, personnel accountability, and prolonged firefighting responsibilities.

3.8.8 Provision for portable communication devices for contractor use during firefighting operations between site, fire, and contractor's/shipyard’s operations center.

3.8.9 Submit one legible copy, in hard copy or approved transferrable media of the Fire Safety and Emergency Fire Response Plan to the SUPERVISOR no later than 10 days prior to commencement of work.

3.8.9.1 Submit one legible copy, in hard copy or approved transferrable media of an updated Fire Safety and Emergency Fire Response Plan prior to any modification to the plan after initial approval.

3.9 Review the Fire Safety and Emergency Fire Response plan in accordance with 2.2 with contractor employees and subcontractors.

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

3.11 Provide fire reporting devices in Dry dock, graving dock, or marine railway as follows:

3.11.1 Fire reporting devices shall be clearly identified and located at each manifold station and each exit serving the dry dock, graving dock, or marine railway.

3.11.2 Fire reporting device separation shall not exceed 200 feet horizontally along the dry dock, graving dock wall, or marine railway or 100 feet from either end of the dry dock, graving dock, or marine railway.

3.11.3 Modifications to locations of fire reporting devices for ships docked side by side, must be approved by the SUPERVISOR.

3.12 Provide water for firefighting to the ship through sufficiently sized hoses or pipes to carry capacities specified by Attachment A. These requirements shall be in addition to water required for flushing and cooling.

3.12.1 Maintain a minimum of 100 PSI residual and static pressure uninterrupted for the entire availability and during testing, measured at each temporary fire hose manifold station.

3.13 Locate each temporary fire distribution hose and each fire hose manifold station to minimize exposure to areas of the ship where flooding due to a ruptured hose would cause damage.

3.14 Conduct an orientation brief to Ship's Force no later than 5 days of the availability start to include the following:

3.14.1 Procedures to rapidly secure temporary systems (e.g., air, electrical power, and ventilation) under Ship's Force control.

3.14.1.1 Train Ship's Force personnel on the procedures to operate temporary firefighting systems, if installed. Provide written operating procedures/instructions to Ship's Force on each type of firefighting system. Provide information and physical training aids for all versions of quick disconnect fittings used in conjunction with temporary services.

3.14.2 Procedures to operate temporary firefighting equipment.

(I)(G) "TEMPORARY FIREMAIN OPERATIONAL TEST"

3.15 Conduct an operational test of both shore side supply and shipboard distribution of firefighting water through the temporary firemain system prior to taking down ships firemain. 3.15.1 and 3.15.2 shall be tested concurrent with acceptance criteria met simultaneously.

3.15.1 Discharge firefighting water from 4 each one and three-quarters inch handline hoses from the two most hydraulically remote temporary fire hose manifold stations on the ship that share the same distribution hose (four nozzles total). Discharge firefighting water from each hose simultaneously for 60 seconds prior to measurement start in order to obtain steady state flow conditions. Once at steady state, test firefighting water flow for a minimum of 60 seconds. Measure and record flowrate and residual nozzle pressure at each nozzle by in-line flow meter and calibrated nozzle pressure gage. The elevation of each nozzle tested shall be equal to or greater than the elevation of the temporary fire hose manifold station providing water to that nozzle. Accept/Reject Criteria: Temporary pumps shall automatically start. Maintain a minimum of 95 GPM and a minimum of 60

PSI residual pressure while flowing simultaneously at each nozzle for a minimum of 60 seconds. Pressure and flowrate shall be constant, maximum nozzle pressure variation allowed during 60 seconds is plus 25 ***or minus*** 0 PSI.

3.15.1.1 When nozzle(s) cannot be tested at the same or higher elevation as the temporary fire hose manifold station(s), add 4.5 PSI to residual nozzle pressure acceptance criteria per 10 foot drop in elevation from the station(s).

3.15.2 Measure and record residual pressure at the shore side supply outlet(s) providing water to those temporary fire hose manifold stations tested in 3.15.1 while simultaneously discharging the 4 nozzles tested in 3.15.1. Accept/Reject Criteria: Maintain a minimum of 150 PSI residual pressure at the shore side supply outlet(s).

3.15.3 Accomplish a retest of 3.15.1 and 3.15.2 if the system is modified after initial test and the criteria of either 3.15.3.1 or 3.15.3.2 are met.

3.15.3.1 After any temporary firemain system modification, where the previously tested hydraulically most remote stations are no longer the hydraulically most remote.

3.15.3.2 After any temporary firemain system modification, where the available residual pressure at the most hydraulically remote stations is reduced.

(V)(G) "MONTHLY TEMPORARY FIREMAIN OPERATIONAL TEST"

3.16 Conduct an operational test of temporary firemain discharge water monthly from the most hydraulically remote temporary fire hose manifold station to verify valves are not secured and/or obstructions in the piping system are not present. Verify that all control valves in the temporary firemain system are in the intended open/closed position. Accept/Reject Criteria: Maintain a minimum of 95 GPM and a minimum of 60 PSI residual pressure while flowing one nozzle for a minimum of 30 seconds.

(I)(G) "PERIODIC SHORE SIDE WATER SUPPLY VALIDATION"

3.17 Conduct validation of shore side water supply flow and pressure prior to availability start date, each time the vessel shifts berths, and annually thereafter should the contract extend beyond one year. Measure and record flow and residual pressure using a calibrated in-line flow meter and calibrated pressure gage. Accept/Reject Criteria: Minimum water supply specified in Attachment A plus flushing and cooling loads is available at the shore side firemain supply outlet(s) and with a minimum of 150 PSI residual pressure.

3.18 Provide a recirculation capability where weather and flow conditions are such that freezing may occur. Freeze protection equipment shall be functional when temperatures drop below 40 degrees F.

3.19 Use of aluminum piping in a temporary saltwater firemain system is prohibited.

3.20 Provide a representative, whose purpose is to coordinate and be responsible for the management of all project temporary services, including services provided by other maintenance activities.

3.21 The following applies to routing of temporary services through installed ship hull openings, both exterior and interior, designed for personnel ingress and egress:

3.21.1 Doorways/Hatches: Temporary services shall be routed within the topmost area of the opening, such that the unobstructed opening of any doorway/hatch with services run shall be at least fifty (50) inches high and twenty-six (26) inches wide.

3.21.2 Vertical Ladders: Temporary services shall be routed to allow safe access. Route services so that personnel may transit the hatch. Services shall not be routed within four (4) inches on either side of the ladder. Services routed behind the ladder shall not interfere with safe access to the ladders and rungs.

3.22 In the event temporary services cannot be routed through interior and exterior installed shipboard personnel openings in accordance with the direction provided above, additional access cuts shall be utilized for routing of temporary services or personnel access and egress. Deviation from this requirement must be adjudicated by the SUPERVISOR.

3.22.1 Submit one legible copy, in hard copy or approved transferrable media, of each approved deviation to the SUPERVISOR.

3.23 Submit one legible copy, in hard copy or approved transferrable media, of a consolidated drawing in the format of a damage control diagram, depicting all services entering the ship to the SUPERVISOR within 2 days of availability start date.

3.23.1 The drawing shall be updated weekly, or immediately to reflect significant changes, and shall be suitable for use by emergency responders for isolation of services during an emergency.

3.23.2 At a minimum, the drawing shall include:

3.23.2.1 Type and description of service.

3.23.2.2 Shore side shut-off points.

3.23.2.3 Route of service through the ship.

3.23.2.4 Location of quick disconnect fittings.

3.23.2.5 Identification of critical temporary services and any cautions for critical services.

3.23.2.6 Status of hull openings and access cuts and identification and location of closure materials.

3.23.2.7 De-watering capabilities.

3.23.2.8 Designated fire zone boundaries.

3.23.2.9 Critical temporary services and their shore side shut-off points shall be highlighted.

3.24 Install quick disconnect fittings (QDF) within 6 feet of hull penetrations used for personnel access to facilitate the deployment of smoke control curtains. Where it is necessary to support a service between a QDF and the designated boundary or hull penetration, the type of support shall not prevent rapid clearing of services from the opening.

3.24.1 For hull openings used for services only, a QDF is not required, provided the opening is fitted with an air and smoke control curtain that remains in place around the services.

3.24.1.1 Curtains shall be made of fire retardant fabric in accordance with 2.6.

3.25 Temporary enclosures erected around hull access openings shall be constructed with openings and removable covers to accommodate standard smoke control ventilation fans (e.g., damage control box fans). If the enclosure is constructed with ventilation fans installed, the fans shall be equipped with reverse air flow capability.

3.26 Ensure that adequate protection is provided during installation, operation, and removal of temporary services. For fluid systems, spray protection shall be installed at each mechanical joint of a temporary system that is inside of the hull of the vessel, in the vicinity of shore power or electrical equipment, or in the vicinity of hull openings to prevent fluids other than air spray on ship’s equipment. Spray protection shall consist of adequate see through sheeting (minimum 5 mils thickness) around each joint secured by several wraps of tape allowing view of the component as much as possible. Anti-chafing protection shall be installed around services in particular areas (i.e., hatches, high traffic areas, vicinity of sharp objects) where there is a high risk of damage.

4. NOTES:

4.1 Example equation for DDG-51 Class with 200-foot hose:

Parameters for the example:

Attachment A = 1000 GPM for DDG
Sample Cooling and flushing load: 250 GPM
Attachment B = 200 GPM for 200-foot hose of 2 and one-half inch hose

$$\frac{(\text{Attachment A} + \text{Cooling and Flushing Load})}{\text{Attachment B}} = \#\text{ of hoses required}$$

$$\frac{(1000\text{gpm} + 250\text{ gpm})}{200\text{gpm}} = 6.25\text{ hoses}$$

Requires 7 (rounded up to next whole number) 2 and one-half inch hoses to supply firefighting and cooling load.

4.2 "Hydraulically Remote" is defined as an area/location that will encounter the highest pressure loss, from both flow friction and elevation change, while encountering maximum possible flowrate.

4.3 Distribution Hose is defined any hose or pipe that transports water to the temporary hose manifold stations or ship's firemain.

4.4 Handline Hose is defined as the hose(s) that transports water from the temporary hose manifold station to the hose fire nozzle.

4.5 Air and smoke control curtains are not intended to provide an air tight seal of the hull opening. The curtains are to ensure that emergency responders can control the flow of air and smoke through the opening to allow for de-smoking of compartments, and minimize "chimney" effects.

4.6 A "quick disconnect" is a coupling or connecting device/system designed to permit easy and immediate separation of lines without the use of tools and to ensure the contents do not escape.

ATTACHMENT A
FIRE PROTECTION WATER SUPPLY REQUIREMENTS

SHIP CLASS	SHIP TYPE	FLOW (GPM)*
AD	Destroyer Tender	1,500
ADG	Degaussing Ship	500
AE	Ammunition Ship	1,500
AF	Store Ship	1,500
AFS	Combat Store Ship	1,500
AG	Miscellaneous Auxiliary Ship	1,500
AGEH	Hydrofoil Research Ship	500
AGF	Miscellaneous Flagship	2,000
AGFF	Frigate Research Ship	1,000
AGM	Missile Range Instrumentation Ship	1,500
AGMR	Major Communications Relay Ship	1,500
AGOR	Oceanographic Research Ship	500
AGP	Gunboat Support Ship	2,000
AGS	Surveying Ship	1,000
AH	Hospital Ship	1,000
AK	Cargo Ship	1,500
AKS	Store Issue Ship	1,500
AKR	Vehicle Cargo Ship	1,500
ANL	Net Laying Ship	500
AO	Oiler	1,500
AOE	Fast Combat Support Ship	1,500
AOG	Gasoline Tanker	1,000
AOR	Fleet Replenishment Oiler	1,500
AP	Transport Ship	1,000
APB	Self-propelled Barracks Ship	500
AR	Repair Ship	1,500
ARB	Battle Damage Repair Ship	500
ARC	Cable Repair and Laying Ship	1,000
ARG	Internal Combustion Engine Repair Ship	1,500
ARL	Landing Craft Repair Ship	1,000
ARS	Salvage Ship	500
ARSD	Salvage Lifting Ship	500
ARVA	Aircraft Repair Ship	1,000
ARVE	Aircraft Engine Ship	1,000
ARVH	Helicopter Tender	1,500
AS	Submarine Tender	1,500
ASR	Submarine Rescue Ship	600
ATA	Ocean Tug	500
ATF	Ocean Tug Fleet	500
ATS	Salvage and Rescue Tug	500
AVM	Guided Missile Ship	1,500
CV, CVN	Aircraft Carrier	3,000
CG	Guided Missile Cruiser	1,000

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

SHIP TYPE		FLOW (GPM) *
DDG	Guided Missile Destroyer	1,000
FFG	Guided Missile Frigate	1,000
FFR	Radar Picket Frigate	1,000
IX	Unclassified Miscellaneous	1,500
LCC	Amphibious Command Ship	1,000
LCS	Littoral Combat Ship	1,000
LHA**	Amphibious Assault Ship	2,500
LHD**	Amphibious Assault Ship	2,500
LKA	Amphibious Cargo Ship	1,500
LPD***	Amphibious Transport Dock	1,500
LSD***	Landing Ship Dock	2,000
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	1,500
MCM	Mine Counter Measures Ship	750
PC	Patrol Coastal	500
PCH	Hydrofoil Patrol Craft	500
PG	Patrol Combatants	500
PGH	Hydrofoil Gunboat	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 4-152-01, UFC 4-150-02, and UFC 4-150-06).

** Includes supply to operate 2 hangar sprinkler groups and 2, 2 and one-half-inch hose lines.

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

Attachment B

Hose Capacity (GPM)*

SIZE (in.)	LENGTH (100ft.)	LENGTH (150ft.)	LENGTH (200ft.)	LENGTH (250ft.)
2 ½	300 GPM	225 GPM	200 GPM	175 GPM
3 ½	750 GPM	600 GPM	500 GPM	450 GPM
4	1000 GPM	825 GPM	700 GPM	650 GPM
Notes: *Based on 20 PSI total friction loss				

NAVSEA
STANDARD ITEM

FY-19

ITEM NO:	009-34
DATE:	18 NOV 2016
CATEGORY:	I

1. SCOPE:

1.1 Title: Fire Protection of Unmanned Vessel at Contractor Facility; accomplish

2. REFERENCES:

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

2.2 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

3. REQUIREMENTS:

3.1 Accomplish fire protection for an unmanned vessel at a contractor facility in accordance with the requirements of 2.1 and 2.2 and this item.

3.2 Maintain available for review, prior to commencement of work, a fire safety plan meeting the requirements of 2.2. In addition to the requirements of 2.2, the plan shall include and identify the method for reporting fires, the shipyard firefighting facilities, equipment, and organization (paid or volunteer), the procedures for maintenance of clear fire lanes in the shipyard and on the piers, and the nearest municipal firefighting organization, including the anticipated time of response.

3.3 Provide fire protection equipment consisting of:

3.3.1 Firefighting water, utilizing manifolds connected to a source capable of providing 150 GPM at 60 PSIG at the manifold shall be in place before start of work.

3.3.1.1 The number of manifolds shall be sufficient to permit reaching all points on the vessel (including underwater body when the vessel is in dry dock or on a marine railway) with 2, 1-1/2 inch hoses of not more than 100 feet in length.

3.3.1.2 Hoses shall be attached to the manifolds and fitted with an all-purpose combination fog and straight stream nozzle.

3.3.1.3 Verify by the Pitot tube method or an in-line flow meter that the water volume and pressure meets these requirements.

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

4. NOTES:

4.1 The term "unmanned" is defined as without the physical presence of people in control; without a human operator.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-40
DATE: ***01 OCT 2017***
CATEGORY: I

1. SCOPE:

1.1 Title: Contractor Crane, Multi-Purpose Machine and Material Handling Equipment at a Naval Facility; provide

2. REFERENCES:

2.1 Standard Items

2.***2*** 29 CFR Part 1910, Occupational Safety and Health Standards

2.***3*** 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

2.***4*** 29 CFR Part 1917, Marine Terminals

2.***5*** 29 CFR Part 1926, Safety and Health Regulations for Construction

2.***6*** NAVFAC P-307, Management of Weight Handling Equipment

3. REQUIREMENTS:

3.1 Notify the SUPERVISOR one day prior to bringing any cranes, multi-purpose machines, material handling equipment, or construction equipment that may be used in a crane-like application to lift suspended loads on a Naval facility.

3.2 Comply with the requirements of 2.1 through 2.***5***, and Paragraph 11.1.b of 2.***6***, prior to bringing or using any contractor crane, multi-purpose machine and material handling equipment that may be used in a crane-like application to lift a suspended load on a Naval facility. |

3.2.1 Maintain written documentation of the last weight test of the crane and all related weight handling equipment on site.

3.3 Ensure the handling and rigging gear and below the hook lifting devices and personnel comply with the following requirements:

3.3.1 Personnel performing rigging shall have an understanding of all signs, notices, and operating instructions, and be familiar with the applicable hand signals prescribed by the ASME B30 standard for the type of crane in use.

3.3.2 Personnel performing rigging shall be familiar with the rigging requirements in 2.1 through 2.***5***.

3.3.3 Provide qualified signal personnel in accordance with 2.5.

3.4 Inspect rigging gear in accordance with 2.1 through 2.***5*** and Paragraph ***11.1.b*** of 2.***6***.

3.4.1 Maintain certification records on site available for review during all work.

(V) "INSPECT CRANE"

3.5 Contractor shall:

3.5.1 Ensure all inspections are performed in accordance with 2.1 through 2.***6*** (daily, monthly, quarterly, and yearly), and retain the current documentation of inspections. Documents shall be kept on site.

3.5.1.1 Perform daily pre-use inspections and testing on all load hoisting and lowering mechanisms, boom hoisting and lowering mechanisms, swinging mechanisms, traveling mechanisms (if to be used that day), and safety devices.

3.5.2 Cranes that have to be re-rated shall be in accordance with SAE Recommended Practice, Crane Load Stability Test Code J765 and documentation maintained on site.

3.5.3 Have an operational anti-two-block device or a two-block damage prevention feature for all points of two-blocking.

3.5.4 Have a boom hoist disconnect, shutoff, or hydraulic relief to automatically stop the boom hoist when the boom reaches a predetermined high angle.

3.6 Conduct a joint verification with the Government representative to ensure that a legible and indelible completed copy of Appendix P, Figure P-1 of 2.***6*** is maintained on the crane, multi-purpose and material handling equipment used in a crane-like application to lift suspended loads. The following certification and testing documentation shall be on site prior to entry and use on any Naval facility:

3.6.1 Crane, multi-purpose and material handling equipment used in a crane-like application to lift suspended loads certification

3.6.2 Load testing

3.6.3 Yearly, monthly, and daily inspection logs

3.6.4 Rope/sling certifications

3.6.5 Operator certifications/designations

3.6.6 Designation of person performing log inspections

3.6.7 Cranes that are permanently located on a Naval facility shall have a quarterly joint verification.

3.7 Develop and maintain on site a critical lift plan in accordance with Paragraph ***11.1.g*** of 2.***6***.

3.7.1 Complete and maintain a copy of Attachment A for each lift.

3.8 Report verbally each accident to the SUPERVISOR immediately but not later than 4 hours of such an event.

3.8.1 Secure the accident site and preserve the scene until released by the SUPERVISOR.

3.8.1.1 Conduct an accident investigation to establish root cause(s) of any accident.

3.8.2 Withhold further crane, multi-purpose and material handling equipment operations until the cause is determined and corrective actions are implemented and approved by the SUPERVISOR.

3.8.3 A crane and rigging gear accident is when any of the following occurs during crane, multi-purpose and material handling equipment operations:

3.8.3.1 Personnel injury or death

3.8.3.2 Material or equipment damage

3.8.3.3 Dropped load

3.8.3.4 Derailment

3.8.3.5 Two-blocking

3.8.3.6 Overload

3.8.3.7 Collision, including unplanned contact between the load, crane, multi-purpose, material handling equipment and/or other objects

3.8.4 Provide a formal written report of the event to the SUPERVISOR within one day of each accident.

3.8.5 Submit one legible copy, in approved transferrable media, of the accident report consisting of a summary of circumstances, and explanation of cause(s), and corrective actions taken, using Attachment B, to the SUPERVISOR within 15 days of each accident.

4. NOTES:

4.1 None.

	CONTRACTOR CRANE OPERATION CHECKLIST FOR CRITICAL LIFTS	YES	NO
1	Does the operator know the weight of the load to be lifted?		
2	Is the load to be lifted within the crane manufacturer's rated capacity in its present configuration?		
3	Is the crane level and on firm ground?		
4	Are outriggers required?		
5	If so, are outriggers fully extended and down, and the crane load off the wheels?		
6	If blocking is required, is the entire surface of the outrigger pad supported and is the blocking material of sufficient strength to safely support the loaded outrigger pad?		
7	If outriggers are not used, is the crane rated for on-rubber lifts by the manufacturer's load chart?		
8	Is the swing radius of the crane counterweight clear of people and obstructions and accessible areas within the swing area barricaded to prevent injury or damage?		
9	Has the hook been centered over the load in such a manner to minimize swing?		
10	Is the load well secured and balanced in the sling or lifting device before it is lifted more than a few inches?		
11	Is the lift and swing path clear of obstructions?		
12	If rotation of the load being lifted is hazardous, is a tag or restraint line being used?		
13	Are personnel prevented from standing or passing under a suspended load?		
14	Is the crane operator's attention diverted?		
15	Are proper signals being used at all times?		
16	Do the operations ensure that side loading is prohibited?		
17	Are personnel prevented from riding on a load?		
18	Are start and stop motions in a smooth fluid motion (no sudden acceleration or deceleration)?		
19	If operating near electric power lines, are the rules and guidelines understood and adhered to?		
20	Is the lift a critical lift?		
21	If so, are critical lift regulations understood, check-off sheets initialed and signed off, and was there an interactive brief conducted with associated personnel?		
22	Is Appendix P, Figure P-1 of 2.***6*** current, filled out completely, and posted in the crane?		
Contractor: Subcontractor:			
Location:		Date:	

FOR OFFICIAL USE ONLY

CRANE AND RIGGING GEAR ACCIDENT REPORT

Accident Category: ☐ Crane Accident ☐ Rigging Gear Accident

From:	To: SUPERVISOR
Activity:	Report No:

Crane No:	Category:	Accident Date:	Time: hrs

Category of Service: ☐ SPS ☐ GPS	Crane Type:	Crane Manufacturer:

Was Crane/Rigging Gear Being Used in SPS? Yes _____ No_____	Was Crane/Rigging Gear Being Used in a Complex Lift/Critical non-crane rigging operation? Yes_____ No_____
Location:	Weather:

Crane Capacity:	Hook Capacity:	Weight of Load on Hook:

Fatality or Permanent Disability? ☐ Yes ☐ No Material/Property Cost Estimate:

Accident Type:

☐ Personal Injury ☐ Overload ☐ Derail ☐ Damaged Rigging Gear

☐ Load Collision ☐ Two Blocked ☐ Dropped Load ☐ Damaged Crane

☐ Crane Collision ☐ Damaged Load ☐ Other Specify _____

Cause of Accident:

☐ Improper Operation ☐ Equipment Failure ☐ Inadequate Visibility

☐ Improper Rigging ☐ Switch Alignment ☐ Inadequate Communication

☐ Track Condition ☐ Procedural Failure ☐ Other Specify _____

Chargeable to:

☐ Crane Walker ☐ Rigger ☐ Operator

☐ Maintenance ☐ Management/Supervision ☐ Other Specify _____

Crane Function:

☐ Travel ☐ Hoist ☐ Rotate ☐ Luffing ☐ Telescoping ☐ Other ☐ N/A

Is this accident indicative of a recurring problem? ☐ Yes ☐ No

If yes, list Accident Report Nos.: _____

ATTACH COMPLETE AND CONCISE SITUATION DESCRIPTION AND CORRECTIVE/PREVENTIVE ACTIONS TAKEN AS ENCLOSURE (1). Include probable cause and contributing factors. Assess damages and define responsibility. For equipment malfunction or failure, include specific description of the component and the resulting effect or problem caused by the malfunction or failure. List immediate and long term corrective/preventive actions assigned and respective codes.

Preparer:	Phone and email	Code	Date

Concurrences:		
	Code	Date
	Code	Date
Certifying Official (Crane Accidents Only):	Code	Date

FOR OFFICIAL USE ONLY

CRANE AND RIGGING GEAR ACCIDENT REPORT INSTRUCTIONS

Electronic submission will be accepted without signatures but the names of the preparer, concurring personnel, and certifying official (for crane accidents only) must be filled in.

1. Accident Category: Indicate either crane accident or rigging gear accident.
2. From: The contractor that is responsible for reporting the accident.
3. Activity: The naval activity where the accident took place.
4. Report No.: The activity assigned accident number (e.g., 95-001).
5. Crane No.: The activity assigned crane number (e.g., PC-5), if applicable.
6. Category: Identify category of crane (i.e., 1, 2, 3, or 4), if applicable.
7. Accident Date: The date the accident occurred.
8. Time: The time (24 hour clock) the accident occurred (e.g., 1300).
9. Category of Service: Check the applicable service (SPS as defined by NAVSEA 0989-030-7000).
10. Crane Type: The type of crane involved in the accident (e.g., mobile, bridge), if applicable.
11. Crane Manufacturer: The manufacturer of the crane (e.g., Dravo, Grove, P&H), if applicable.
12. SPS: Was the crane or rigging gear being used in an SPS lift?
13. Complex lift: Was the crane or rigging gear being used in a complex lift?
14. Location: The detailed location where the accident took place (e.g., building 213, dry dock 5).
15. Weather: The weather conditions at time of accident (e.g., wind, rain, cold).
16. Crane Capacity: The certified capacity of the crane (e.g., 120,000 pounds), if applicable.
17. Hook Capacity: The capacity of the hook involved in the accident at the maximum radius of the operation, if applicable.
18. Weight of Load on Hook: If applicable, the weight of the load on the hook.
19. Fatality or Permanent Disability?: Check yes or no.
20. Material/Property Cost Estimate: Estimate total cost of damage resulting from the accident.
21. Reported to NAVSAFECEN?: Self-explanatory.
22. Accident Type: Check all that apply.
23. Cause of Accident: Check all that apply.
24. Chargeable to: Check all that apply.
25. Crane Function: Check the function(s) in operation at time of accident. Check all that apply. Check N/A if a rigging gear accident.
26. Is this a recurring problem?: Check yes or no. Identify any other similar accidents.
27. Situation Description/Corrective Actions: Self-explanatory.
28. Preparer: Self-explanatory.
29. Concurrences: Self-explanatory.
30. Certifying Official (Crane Accidents Only): Self-explanatory.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-59
DATE: 18 NOV 2016
CATEGORY: II

1. SCOPE:

1.1 Title: Organotin Antifouling Material; control

2. REFERENCES:

2.1 S9086-VD-STM-010/CH-631, Preservation of Ships in Service

3. REQUIREMENTS:

3.1 Accomplish work associated with application, removal, or disturbance of organotin materials in accordance with 2.1, using this item for control, clean-up, safety precautions, and environmental practices.

3.1.1 Apply and dispose of organotin material in accordance with federal, state, and local laws, codes, ordinances, and regulations.

3.1.2 Personnel with occupational exposure to organotin shall be in the medical monitoring program.

3.1.3 Safety and environmental protection shall include total encapsulation of the work site.

3.1.3.1 Blank ship intake ventilators and close hatches within the work site enclosure to prevent entry of paint, blasting particles, or vapors into the ship. Take precautions to prevent circulation of paint mists and vapors throughout the interior of the ship.

3.1.3.2 Remove all unnecessary equipment from the containment.

3.1.4 Accomplish the following clean-up at the completion of the painting or blasting operation:

3.1.4.1 Sweep (in a wet state) or vacuum all dry dock and equipment surfaces after painting or blasting.

3.1.4.2 Clean up accidental spills immediately.

3.1.4.3 Decontaminate keel blocks, staging, planks, suspended platforms, dry dock, or equipment surfaces contaminated with organotin paint prior to reuse.

3.1.5 Provide personal protective equipment (PPE) for personnel as follows:

3.1.5.1 Organotin workers shall wear protective impervious clothing, including gloves, aprons, suits, hoods, and boots when needed to prevent skin contact.

3.1.5.2 Abrasive blasting operators, in addition to their regular protective clothing, shall wear rubber boots and impervious coveralls as outer garments. All openings shall be taped.

3.1.5.3 Blasters/blasting support personnel (personnel within the work area containment) shall use self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand mode, or a combination supplied-air respirator with full facepiece and an auxiliary self-contained air supply operated in pressure-demand mode.

3.1.5.4 Protective equipment shall be cleaned before/after use.

3.1.5.5 Personnel handling potentially contaminated items shall wear rubber gloves and disposable coveralls.

3.1.5.6 Where small areas of paint removal are required, a small containment shall be set up around the area. Paint removal other than blasting shall be used to remove paint a minimum of 6 inches on either side of repair.

3.1.6 Provide training for all personnel involved in the application, removal, disturbance, or disposal of organotin and support personnel. Training shall be documented.

3.1.6.1 Training shall include the hazards, physical symptoms, appropriate emergency procedures, and proper conditions and precautions for the safe handling or use of organotin to workers in areas where exposure may occur. Additionally, training shall include the use of PPE and shall ensure that personnel have a knowledge of job hazards, proper maintenance, clean up methods, and respirator usage.

3.1.7 As a minimum, the following safety and health precautions shall be enforced:

3.1.7.1 No eating, drinking, or smoking in work areas.

3.1.7.2 Protective clothing must be worn.

3.1.7.3 Avoid inhaling vapor, dust, mist, or fumes.

3.1.7.4 Avoid direct contact of paint with skin.

3.1.7.5 Avoid eye and skin contact with mist or spray.

3.1.7.6 After working with organotin and immediately upon removal of protective clothing, personnel must shower using soap and water unless otherwise informed.

3.1.7.7 Avoid contact between hands and mouth if hands have been exposed to the material.

3.1.8 Post the exposure zone whenever organotin work is in progress.

3.1.8.1 During the application, removal or disturbance of organotin, a sign must be posted at each entrance to the work area and at each entrance to the dry dock reading: ANTI-FOULING PAINT CONTAINING ORGANOTIN BEING APPLIED OR REMOVED.

3.1.8.2 Work areas shall be posted with signs stating PPE requirements.

4. NOTES:

4.1 None.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO:	009-61
DATE:	18 JUL 2014
CATEGORY:	I

1. SCOPE:

1.1 Title: Shipboard Use of Fluorocarbons; control

2. REFERENCES:

2.1 Standard Items

2.2 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

2.3 NFPA Standard 306, Standard for the Control of Gas Hazards on Vessels

2.4 40 CFR Part 82, Protection of Stratospheric Ozone, Subpart F

3. REQUIREMENTS:

3.1 Accomplish work associated with the use of fluorocarbons aboard ship in accordance with this item.

3.2 Maintain at the work site a copy of the credentials of the Competent/Qualified Person who will monitor atmosphere, inspect and certify spaces are safe to enter, and who will supervise all activities.

3.2.1 A Qualified Person is defined as a National Fire Protection Association Certified Marine Chemist, an Industrial Hygienist, or a Competent Person as defined in 2.2 and trained in accordance with 009-07 of 2.1. These Qualified Persons shall be capable of specifying the necessary protection and precautions to be taken during fluorocarbon operations, as designated in 2.2 and 2.3.

3.3 Maintain a copy of a fluorocarbon control plan at the work site. The plan shall include the following information and shall be provided to the SUPERVISOR upon request:

3.3.1 Identification of hose/piping routes and steps to be taken to protect hoses along those routes

3.3.2 Type and location of warning signs

3.3.3 Type and location of portable ventilation required

3.3.4 Means of communication to be utilized

3.3.5 Type of hoses and material compatibility to fluorocarbons

3.3.6 Type of emergency breathing devices that are immediately accessible

3.3.7 Type and location of portable oxygen and halide monitoring detectors/alarms

3.3.8 Emergency evacuation and rescue procedures

3.3.9 Open flame and hot work controls

3.3.10 Results of preliminary tests, ensuring system integrity and absence of leakage

3.3.11 Provisions for periodic inspections that include adjacent spaces to ensure work area containment and work practices are effective

3.4 Submit written notification to the SUPERVISOR and the Commanding Officer's designated representative at least 4 hours, but not more than 24 hours prior to commencement, each time fluorocarbons are utilized aboard ship for any purpose. Identify the time, location, and purpose of each evolution. Notify the SUPERVISOR and designated ship's representative immediately prior to the actual start and upon completion of each evolution.

3.4.1 Deliver notification of work planned Tuesday through Friday to the Commanding Officer's designated representative at least 30 minutes and not more than 24 hours preceding start of work.

3.4.2 Deliver notification of work planned over a weekend or Monday following that weekend to the Commanding Officer's designated representative no later than 0900 on the Friday immediately preceding that weekend.

(I) "INSPECT FLUOROCARBON EQUIPMENT"

3.5 A certified technician shall, as required by 2.3, pressure test the fluorocarbon charging and flushing handling equipment, i.e., hoses, piping, valves, fittings, and manifolds, using dry nitrogen with trace amounts of HCFC-22 compound at 150 percent of charging equipment working pressure within 30 days prior to use aboard ship. Hold test pressure for 15 minutes. Allowable leakage: None.

3.5.1 Attach a solid metal tag with the following to each piece of equipment passing test:

3.5.1.1 Name and address of testing facility

3.5.1.2 Description of equipment

3.5.1.3 Date of test

3.5.1.4 Test pressure

(I)(G) "INSPECT WORK SITE AND PROCESS PRIOR TO FLUOROCARBON OPERATIONS"

3.6 Inspect work site to ensure the following prior to fluorocarbon operations:

3.6.1 Provide ventilation to maintain oxygen content above 19.5 percent and not greater than 22.0 percent by volume in spaces where fluorocarbon compounds are in use.

3.6.2 Establish and maintain telephone communication between the pumping station and the space involved when the fluorocarbon compound is being transferred by hose or pipe.

3.6.3 Ensure that all personnel in a space where fluorocarbon operations are being carried out have an emergency escape breathing device (EEBD) in their possession or in the immediate area so that they can quickly don the units in case of a leak.

3.6.3.1 Each person shall have received instruction and practice in the use of the particular EEBD to be used, prior to entering each space where fluorocarbon operations are being carried out.

3.6.4 Suspend hot work in spaces prior to hook-up, test, and disconnect operations in which fluorocarbon compounds are exposed to the atmosphere.

3.6.4.1 Hot work is permitted in spaces traversed by lines carrying fluorocarbon compounds provided the lines are clearly tagged and no hot work is attempted within 3 feet of a tagged line.

3.6.5 Provide a halide monitor with alarm or equivalent instrument to continuously monitor the atmosphere in spaces where fluorocarbon compounds are used. If the concentration of fluorocarbon compound in the space exceeds the Threshold Limit Value (TLV) for the fluorocarbon compound (where the instrument is set to alarm), clear the space of personnel, notify Quarterdeck Watch immediately and the SUPERVISOR as soon as practical but not more than 30 minutes after the instrument alarms.

3.6.6 Post a caution sign in the area and at each entrance to the area.

3.6.6.1 The sign shall read: CAUTION: No open flames. Do not enter without testing the air for fluorocarbons.

3.6.6.2 The sign letters shall be at least one-inch high.

3.6.7 Provide a minimum of 2 people trained and familiar with the operation while a fluorocarbon compound is being used in quantities exceeding 10 pounds.

3.7 Accomplish preliminary pressure tests of charging/flushing equipment after connecting aboard ship each time equipment is used. Pressure shall equal 100 percent of charging/flushing equipment working pressure. Hold test pressure for 15 minutes. Allowable leakage: None.

3.7.1 Ensure charging equipment is isolated from equipment to be charged prior to test.

3.8 A certified technician shall, as required by 2.4, ensure that fluorocarbon gases are not vented to the interior of the ship or to the atmosphere when pressure is released from the system by utilizing reclaiming/recycling equipment tested and certified by an Environmental Protection Agency (EPA) approved laboratory or organization.

3.8.1 Collect CFCs and HFCs for either recycling back into the same system/piece of equipment from which the material was removed or recovering the CFCs for turn-in.

4. NOTES:

4.1 Following are examples of commonly used fluorocarbon compounds:

Trichlorofluoromethane, Freon 11, R-11 (CFC-11)
Dichlorodifluoromethane, Freon 12, R-12 (CFC-12)
Chlorotrifluoromethane, R-13 (also component of R-503) (CFC-13)
Pentachlorofluoroethane (CFC-111)
Tetrachlorodifluoroethane (CFC-112)
1,1,2 Trichloro-1,2,2 Trifluoroethane, Freon 113, Freon TF, Freon PCA, Genetron 113 (CFC-113)
1,2 Dichlorotetrafluotethane, R-114, Freon 114 (CFC-114)
Chloropentafluoroethane, R-115 (also component of R-502) (CFC-115)
Heptachlorofluoropropane (CFC-211)
Hexachlorodifluoropropane (CFC-212)
Pentachlorotrifluoropropane (CFC-213)
Tetrachlorotetrafluoropropane (CFC-214)
Trichloropentafluoropropane (CFC-215)
Dichlorohexafluoropropane (CFC-216)
Chloroheptafluoropropane (CFC-217)
Tetrafluoroethane (HFC-134a)

4.2 EEBD equipment for Government representatives will be provided by the Government.

4.3 ODS material must be procured as Government Furnished Material (GFM) from the DOD ODS Reserve. Notify the SUPERVISOR at least 14 days prior to anticipated usage.

4.4 The following definitions are delineated by Navy policy:

4.4.1 Recover - To remove refrigerant in any condition from a system and store it in an external container without necessarily testing or processing it in any way.

4.4.2 Recycle - To reduce contaminants in used refrigerant by oil separation and single or multiple passes through devices such as replaceable core filter dryers that reduce moisture, acidity and particulate matter. The term usually applies to procedures implemented at the field job site or at a local service shop.

4.4.3 Reclaim - To reprocess refrigerant to new product specifications by means that may include distillation. Chemical analysis of the refrigerant is required to determine that appropriate product specifications are met. This usually implies the use of processes or procedures that are available only at refrigerant reprocessing or manufacturing facilities.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO:	009-65
DATE:	***01 OCT 2017***
CATEGORY:	I

1. SCOPE:

1.1 Title: Polychlorinated Biphenyls (PCBs); control

2. REFERENCES:

2.1 40 CFR Part 761, Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions

2.2 Toxic Substances Control Act (TSCA)

3. REQUIREMENTS:

3.1 Visually inspect equipment suspected of containing PCBs for leaks, deterioration, and corrosion prior to opening, removing, or installing equipment.

3.1.1 Submit one legible copy, in approved transferrable media, of a report listing results of the inspection conducted in 3.1 to the SUPERVISOR if ***a leak, deterioration, or corrosion is found.***

3.2 Consider wool felt to contain PCBs and chromium.

3.2.1 Submit one legible copy, in approved transferrable media, of a report listing the type of wool felt (gasket or damping material), location, and approximate quantity to the SUPERVISOR.

3.3 Provide a copy of a control, method of removal, and disposal plan in accordance with 2.1 and/or 2.2 to the SUPERVISOR.

4. NOTES:

4.1 None.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-70
DATE: 18 NOV 2016
CATEGORY: I

1. SCOPE:

1.1 Title: Confined Space Entry, Certification, Fire Protection, Fire Prevention and Housekeeping for Unmanned Vessels; accomplish

2. REFERENCES:

2.1 Standard Items

2.2 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

2.3 29 CFR Part 1910.134, Occupational Safety and Health Standards, Respiratory Protection

2.4 NFPA Standard 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work

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

2.6 American Conference of Government Industrial Hygienists (ACGIH) Threshold Limit Values for Chemical Substances and Physical Agents

2.7 NAVSEA OP-4, Ammunition and Explosives Safety Afloat

3. REQUIREMENTS:

3.1 Comply with the requirements of 2.2 through 2.5 and this item for an unmanned vessel to determine whether or not an explosive or other dangerous atmosphere exists in tanks, spaces, and associated piping, including adjacent tanks, spaces, and piping, aboard the craft and control hot work and entry to those spaces to preclude damage to the craft or injury to personnel during the accomplishment of this Job Order.

3.1.1 Submit one legible copy, in approved transferrable media, of a list of tanks or spaces to be opened or certified to the SUPERVISOR at least one day prior to opening the tank or void.

3.1.1.1 Comply with additional requirements of 009-88 of 2.1 when accomplishing work in Collection, Holding and Transfer (CHT) and Motor Gasoline (MOGAS) tanks, spaces, or associated piping.

3.1.1.2 For fuel tanks or spaces that contain or have contained fuel, including F-76 and JP-5, in addition to the atmospheric testing required by 2.2, test for diesel fuel (CAS No. 68334-30-5; 68476-30-2; 68476-31-3; 68476-34-6, 77650-28-3) as total hydrocarbons in accordance with 2.6, and record total hydrocarbon test results on the Marine Chemist Certificate or Competent person’s tests/inspection record.

3.1.2 Provide initial and annual update training for Competent Persons by utilizing a National Fire Protection Association (NFPA) Certified Marine Chemist or NFPA Instructor. The length of the initial training class shall be at least 24 hours. Annual update training shall be at least 8 hours.

3.1.2.1 Maintain a current roster of designated Competent Person(s) and copies of certificates of completion for the training required in 3.1.2 for reference by the SUPERVISOR. Submit one legible copy, in approved transferrable media, of the specific documents when requested by the SUPERVISOR.

3.1.3 Post a copy of the Marine Chemist Certificate, Certified Industrial Hygienist's test/inspection record, or Competent Person's test/inspection record at each access to the affected space while work in the space is in progress. When requested, a copy of the MCC or test/inspection record shall also be delivered to a location designated by the SUPERVISOR. In the event that the space is identified to be NOT SAFE FOR WORKERS or NOT SAFE FOR HOT WORK, the space shall be posted accordingly and other affected contractors, the SUPERVISOR and Ship’s Force (if applicable) shall be notified immediately. The posted copy shall be clearly visible and legible.

3.1.3.1 Initial certification of spaces that require a Certified MCC or Certified Industrial Hygienist's test/inspection record in support of work operations shall be effective until conditions change which would void the certificate or test/inspection record. A Competent Person shall conduct the same Atmosphere testing as annotated on the MCC Certified Industrial Hygienist's test/inspection record.

3.1.3.2 For those certified spaces which employees will enter, a Competent Person shall visually inspect, test and record each space certified as ENTER WITH RESTRICTIONS or SAFE FOR WORKERS as often as necessary, and as a minimum, prior to entry by employees on a daily basis. If a space is not to be entered on any given day, it is not required to be inspected and tested by a Competent Person. The initial MCC remains valid if conditions have not changed, unless noted on the MCC.

3.1.3.3 For those certified spaces affected by hot work, a Competent Person shall visually inspect, test and record each space certified as SAFE FOR HOT WORK as often as necessary and, as a minimum, daily prior to

commencement of hot work to ensure that conditions established by the certificate are maintained. When hot work is continuous, the affected spaces shall be visually inspected, tested, and recorded on a daily basis to maintain the SAFE FOR HOT WORK certification.

3.1.3.4 If a Competent Person finds that the conditions within a certified space fail to meet the applicable requirements for which it was certified, work in the space shall be stopped and may not be resumed until the space has been recertified by a Marine Chemist.

3.1.3.5 For those spaces where only Competent Person tests and inspections are required in accordance with 2.2, a Competent Person shall visually inspect and test each space as often as necessary and, as a minimum, daily prior to entry or commencement of hot work to ensure that conditions are safe.

3.1.3.6 After the Competent Person has determined initially that a space is safe for entry and finds subsequently that the conditions within the tested space fail to meet the requirements of 2.2, work shall be stopped until the conditions in the tested space are corrected, the space is retested, reinspected, and a new record of tests/inspections is recorded and posted.

3.1.4 Tank cleaning personnel shall be trained annually on safety practices to include a discussion of safety information found in Subparts A, B, and Section 1915.152 of Subpart I of 2.2.

3.1.5 Maintain a current roster of the names of the Shipyard/Plant Rescue Team Members, along with contractor certification that training requirements of Subpart B of 2.2 have been accomplished and are current for each Rescue Team Member, or documentation of arrangements made for an outside rescue team to respond promptly to a request for rescue service in a contractor facility. Submit one legible copy, in approved transferrable media, of the specific documents when requested by the SUPERVISOR.

3.1.5.1 At a naval facility, the Navy will respond.

3.1.6 Spaces that are determined to contain Immediately Dangerous to Life or Health (IDLH) atmospheres shall never be entered except for emergency rescue or for short duration for installation of ventilation equipment in accordance with 2.2 and 2.3. When entering IDLH spaces for the purpose of installing ventilation, notify the SUPERVISOR prior to entry. Notifications of rescue shall be made as soon as management becomes aware of such an event.

3.1.7 Confirm that all personnel have exited the space prior to closure of tanks, voids, and cofferdams. Designate one person to account for all personnel who may have entered the space.

3.2 Provide a written notice for each job or separate area of hot work aboard craft.

3.2.1 The notice shall state a description of the work to be done, the specific location, to include compartment number, of the hot work, and compartments adjacent to decks, bulkheads, and similar structures upon which hot work is to be accomplished, the time hot work will commence, current gas-free status of the area (if required), the absence or existence of combustible material within 35 feet in any direction of the operation (or further, if affected by the operation), and if combustible material exists, what action shall be taken to protect the material from fire, the provision and assignment of a fire watch, and the affirmation that conditions at the work site (ventilation, temporary lighting, accesses) permit the fire watch(es) to have a clear view of and immediate access to all areas included in the fire watch.

3.2.2 The notice shall affirm that a suitable, fully-charged fire extinguisher shall be available at the job site and provide for an inspection of the area 30 minutes after completion of the hot work or the cessation of hot work at the job site unless the contractor's Hot Work Supervisor surveys the affected work area and determines that there is no further fire hazard as the final action to complete the notice.

3.2.3 The notice shall be signed by a supervisor specifically designated as responsible for coordination of the hot work and the fire watch requirement for each shift where hot work is being conducted.

3.2.4 One copy of each notice shall be given to the SUPERVISOR when requested and at a minimum, one copy of each notice shall also be conspicuously posted at the location where the hot work is being accomplished.

3.2.4.1 Deliver written notification of hot work planned Tuesday through Friday to the SUPERVISOR at least 30 minutes and not more than 24 hours preceding start of work.

3.2.4.2 Deliver written notification of hot work planned over a weekend or Monday following that weekend to the SUPERVISOR no later than 0900 on the Friday immediately preceding that weekend.

3.2.4.3 Deliver written notification of hot work planned on a federal holiday and on the day following the federal holiday to the SUPERVISOR no later than 0900 of the last working day preceding the federal holiday.

3.2.4.4 The notice shall be effective for 24 hours unless a shorter period is specified in the contract or the gas-free status of the work area or system requires stopping the work. A new notice is required if work is interrupted due to loss of gas-free status.

3.3 Provide trained fire watches, at all affected areas where hot work is being accomplished. Provide fire extinguishing equipment as described in 2.2, 2.4, and 2.5.

3.3.1 The program utilized to train fire watches shall be in accordance with the requirements of 2.2 and 2.4, and include steps to be taken by the fire watch and hot work operator prior to accomplishment of hot work, proper selection and use of fire extinguishing equipment and other safety equipment, relationship between the fire watch and hot work operator, proper fire reporting procedures and other sounding of fire alarms, and reporting of fires to the ship's Quarterdeck. A means of communicating between all fire watches and their corresponding hot workers shall be provided. This training shall include theory and practical (hands-on) fire suppression techniques. This training shall be provided to all newly assigned fire watches, with annual updates provided to personnel. Provide visible means of identifying trained fire watches, i.e., badge, sticker, vest, etc.

3.3.1.1 Submit one legible copy, in approved transferrable media, of the training program when requested by the SUPERVISOR.

3.3.2 Each fire watch attending worker(s) accomplishing hot work shall be equipped with a fully-charged and operable fire extinguisher, have immediate access and an unobstructed view of the affected hot work area to which they are assigned and shall remain at the job site for 30 minutes from the time the hot work is completed unless the contractor's Hot Work Supervisor surveys the affected work area and determines that there is no further fire hazard.

3.3.2.1 The fire watch shall not accomplish other duties while hot work is in progress.

3.3.3 Where several workers are accomplishing hot work at one site, the fire watch shall have a clear view of and immediate access to each worker accomplishing hot work.

3.3.3.1 No more than 4 workers shall be attended by a single fire watch.

3.3.4 In cases in which hot material from hot work may involve more than one level, as in trunks, machinery spaces, and on scaffolding, a fire watch shall be stationed at each level unless positive means are available to prevent the spread or fall of hot material.

3.3.5 In cases where hot work is to be accomplished on a bulkhead or deck, combustible material shall be removed from the vicinity of the hot work on the opposite side of the bulkhead, overhead, or deck, and a fire watch shall be posted at each location.

3.3.5.1 If multiple blind compartments are involved in any hot work job, fire watches shall be posted simultaneously in each blind area.

3.3.6 Comply with the firefighting and fire prevention requirements of 2.7 prior to hot work operations in or adjacent to areas containing ammunition or explosives.

3.3.6.1 Hot work shall not be conducted during any logistics or maintenance movement of ammunition or explosives.

3.3.7 No hot work shall be performed without an operational general announcing system, i.e., Ship's 1MC, or a documented communication strategy approved by the SUPERVISOR.

3.4 Locate oxygen, acetylene, fuel gas, toxic, oxygen depleting (OD) gas supply systems off the craft. Manifolds connected to pierside supply systems may be placed on board as long as they are equipped with a shutoff valve located on the pier. The pierside shutoff valve shall be in addition to the shutoff valve at the inlet to each portable outlet header required by 2.2.

3.4.1 Oxygen, acetylene, fuel gas, toxic, and OD gas supply systems shall be stored to prevent collisions by trucks, forklifts, falling objects, etc.

3.4.2 LOX tanks shall be staged in designated locations on the quay wall/pier to be determined jointly by the contractor and the SUPERVISOR.

3.4.3 When gas cylinders are in use on board the craft, they shall be located on the weather decks or in a location determined jointly by the contractor and the SUPERVISOR and shall be secured in cylinder racks, and in an upright position. The number of in-use cylinders shall be limited to those which are required for work in progress and which have pressure regulators connected to the cylinder valves. On-board reserve gas cylinders shall not exceed one-half the number of in-use cylinders and shall be located in a remote area of the weather decks or in a location determined jointly by the contractor and the SUPERVISOR. Reserve acetylene cylinders shall be secured in an upright position.

3.4.4 When not in use, gas cylinders and manifolds on board shall have valves closed, lines disconnected, protective cover (cap) in place, and shall be secured. Acetylene cylinders shall be secured in cylinder racks and in an upright position.

3.5 Each fuel gas and oxygen hose run shall be positively identified with durable unique markings that include maintenance activity name, service type, location, and shore side shut-off points. Tags shall be located (at a minimum) at the source, point of entry aboard ship, at each connection point (including quick disconnects), and termination point.

3.5.1 Unattended fuel gas and oxygen hose lines or torches are prohibited in confined spaces.

3.5.2 Unattended charged fuel gas and oxygen hose lines or torches are prohibited in enclosed spaces for more than 15 minutes.

3.5.3 All fuel gas and oxygen hose lines shall be disconnected at the supply manifold at the end of each shift.

3.5.4 All disconnected fuel gas and oxygen hose lines shall be rolled back to the supply manifold or to open air to disconnect the torch; or extended fuel gas and oxygen hose lines shall not be reconnected at the supply manifold unless the lines were given a positive means of identification when they were first connected and the lines are tested using a drop test to ensure the integrity of fuel gas and oxygen burning system. Alternate procedures must be approved by the SUPERVISOR.

3.5.5 Upon completion of oxygen-fuel gas system hook-up, accomplish a pressure drop test to include the torch, hoses, and gages.

3.5.5.1 Apply pressure to the system. Back off pressure by turning off the valve supplying gases to the system. If the pressure on the gage drops, a leak in the system exists. If the pressure on the gage does not drop, the system is tight.

3.5.5.2 After applying pressure, wait 2 minutes to ensure pressure does not drop.

3.5.6 The use of gas hose splitters is prohibited.

3.6 Each inert gas/oxygen depleting (OD) hose run shall be positively identified with durable unique markings that include maintenance activity name, service type, location, and shore side shut-off points. Tags shall be located (at a minimum) at the source, point of entry aboard ship, at each connection point (including quick disconnects), and termination point.

3.6.1 Unattended inert gas/OD hose lines or torches are prohibited in confined spaces.

3.6.2 Unattended, charged inert gas/OD hose lines or torches are prohibited in enclosed spaces for more than 15 minutes.

3.6.3 All inert gas/OD hose lines shall be disconnected at the supply manifold at the end of each shift.

3.6.4 All disconnected inert gas/OD hose lines shall be rolled back to the supply manifold or to open air to disconnect the torch; or extended inert gas/OD hose lines shall not be reconnected at the supply manifold unless the lines were given a positive means of identification when they were first connected and the lines are tested using a drop test to ensure the integrity of inert gas/OD systems. Alternate procedures must be approved by the SUPERVISOR.

3.6.5 Upon completion of inert gas/OD gas system hook-up, accomplish a pressure drop test to include the torch, hoses, and gages.

3.6.5.1 Apply pressure to the system. Back off pressure by turning off the valve supplying gases to the system. If the pressure on the gage drops, a leak in the system exists. If the pressure on the gage does not drop, the system is tight.

3.6.5.2 After applying pressure, wait 2 minutes to ensure pressure does not drop.

3.6.6 The use of gas hose splitters is prohibited.

3.7 Use fireproof or fire-retardant covering in accordance with MIL-C-24576, such as fireproofed canvas, fire-resistant synthetic fabrics, non-combustible fabrics, metal covers in accordance with ASTM D6413, or other suitable materials, to protect ship's equipment from falling sparks or other potential sources of fire. Coverings shall be in place prior to commencing hot work and be maintained throughout the hot work evolution. Proper documentation of fire retardancy shall be available for review upon request.

3.7.1 Non fire-retardant temporary wooden structures located on the pier, dry dock edge, or in the dry dock (not including dry dock blocks) shall be a minimum of 35 feet from the ship to prevent spread of fire.

3.7.2 Lumber, plywood, and staging boards, except that used for pallets, shall be fire retardant in accordance with Category Two, Type II, of MIL-L-19140.

3.7.3 Storage of material aboard the craft shall be limited to that which is required for work in progress.

3.7.4 Prior to bringing equipment or working material aboard the craft, its crating and packing shall be removed. If the equipment or material may be damaged during handling, the crating and packing shall be removed immediately after the equipment or working material is brought aboard and taken ashore for disposal. A small quantity of pallets may be staged in a location determined jointly by the contractor and the SUPERVISOR aboard the craft for use in materials handling operations.

3.7.5 The quantity of flammable and combustible liquids brought onboard shall be kept to a minimum, shall not exceed that necessary for one shift's use, and shall not be left unattended.

3.7.6 Ensure at least one unobstructed access to each main and auxiliary machinery space.

3.8 Accomplish a fire prevention and housekeeping inspection during each shift whenever work is in progress. Once each manned/regular workday, the inspection shall be made jointly with the SUPERVISOR. Deviation from this requirement for availabilities less than 30 days in duration must be adjudicated by the SUPERVISOR.

3.8.1 Submit one legible copy, in approved transferable media, of request for deviation to the SUPERVISOR.

3.8.2 Submit one legible copy, in approved transferrable media, of a written report of the discrepancies and corrective actions, using Attachment A, to be taken to the SUPERVISOR within 4 hours after completion of the inspection.

3.9 Develop and implement a written fire safety plan in accordance with 2.2. Review the plan with contractor employees and subcontractors.

3.10 Ensure access to temporary firefighting equipment is not obstructed or restricted.

3.10.1 Ensure firefighting equipment is not relocated without written authorization from the SUPERVISOR. Provide a secure temporary storage facility for firefighting equipment that is moved from its original location.

3.11 Conduct a firefighting and fire prevention conference in conjunction with the arrival conference or no later than 5 days after start of the availability for availabilities in excess of 30 days. This conference shall cover the contractor's fire safety and fire response plan for fire prevention and firefighting and the procedures that will be in use by the contractor and the region/installation or municipal fire and emergency services, as well as familiarize the contractor and the region/installation or municipal fire and emergency services with the craft arrangement, onboard fire prevention, and firefighting systems, equipment, and organization, and familiarize all parties with the scope of work and aspects of the work or craft conditions that have significance in fire prevention and firefighting.

3.11.1 The conference shall specifically address the following matters:

3.11.1.1 Fire alarm and response procedures

3.11.1.2 Contractor firefighting capability and procedures

3.11.1.3 Region/installation or municipal fire and emergency services firefighting capability and procedures

3.11.1.4 Firefighting jurisdictional cognizance and incident command procedures

3.11.1.5 Communication system for fire reporting and control or firefighting efforts

3.11.1.6 Craft arrangement including access routes, availability or firefighting systems (installed and temporary), fire zone boundaries, and communication systems

3.11.1.7 Craft firefighting organization, systems, drills, and equipment to include rehabilitation procedures

3.11.1.8 Craft, space, and equipment security consideration

3.11.1.9 Compatibility of contractor, and region/installation or municipal fire and emergency services firefighting equipment

3.11.1.10 Industrial work scope, including location of craft, and effect on firefighting systems, access, and communications

3.11.1.11 The roles, responsibilities, and membership of the Fire Safety Council (FSC). Include the requirement to obtain permission from the FSC to perform work that affects the fire safety posture (e.g., securing the firemain, securing the 1MC, undocking, transferring fuel/lube oil) of the ship.

3.11.1.12 Hotwork monitoring and confined space practices.

3.11.2 The firefighting and fire prevention conference shall include a table top fire drill.

3.12 Provide 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 or anytime during the availability that the craft's power is not available as an emergency back-up to installed shore power.

3.13 Maintain available for review, prior to commencement of work, a fire safety plan meeting the requirements of 2.2. In addition to the requirements of 2.2, include and identify the method for reporting fires, the shipyard firefighting facilities, equipment, and organization (paid or volunteer), the procedures for maintenance of clear fire lanes in the shipyard and on the piers, and the nearest municipal firefighting organization, including the anticipated time of response.

3.14 Provide fire protection equipment consisting of:

3.14.1 Firefighting water, utilizing manifolds connected to a source capable of providing 150 GPM at 60 PSIG at the manifold shall be in place before start of work.

3.14.1.1 The number of manifolds shall be sufficient to permit reaching all points on the vessel (including underwater body when the vessel is in dry dock or on a marine railway) with 2, 1-1/2 inch hoses of not more than 100 feet in length.

3.14.1.2 Hoses shall be attached to the manifolds and fitted with an all-purpose combination fog and straight stream nozzle.

3.14.1.3 Verify by the Pitot tube method or an in-line flow meter that the water volume and pressure meets these requirements.

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

4. NOTES:

4.1 In addition to CHT and MOGAS tanks, Hydrogen sulfide (H_2S) may be found in AFFF, seawater, and firemain systems.

4.2 Booklet of General Plans and Tank Sounding Tables are available for review at the office of the SUPERVISOR.

4.3 The term "unmanned" is defined as without the physical presence of people in control; without a human operator.

4.4 A "quick disconnect" is a coupling or connecting device/system designed to permit easy and immediate separation of lines without the use of tools and to ensure the contents do not escape.

Fire Zone Boundaries

ESH Discrepancy and Corrective Action Log

Attendees

Ship name/hull number:
Location:
Prime Contractor:

Date: Time:

No.	Point of Contact	Date Corrected	Location	Discrepancy	Corrective Action	Code

Type Codes: 1-Housekeeping, 2-Fire Prevent./Fire Equipment, 3-Hot Work., 4-FZ Boundary, 5-Electrical, 6-Compress Gas/Hoses/Bottles/Manifolds, 7-Scaffolding, 8-Egress/Exit, 9- Walking/Working Surfaces, 10-PPE, 11- Containment, 12-Unguarded/Edges/Holes/Openings/Fall Protection, 13-Confined/Enclosed Spaces, 14-Lines & Leads Hazards, 15-Equip. Adrift & Rollback, 16-Ventilation, 17-Machine Guarding/Hand Tools, 18-Crane/Rigging, 19-Environmental & Hazardous Material/Communication, 20-Environmental Protection, 21-General Safety

ATTACHMENT A

ESH DISCREPANCY AND CORRECTIVE ACTION LOG INSTRUCTIONS

1- Fire Zone Boundaries: List the designated Fire Zone Boundaries.
2- Attendees: List Company and or Command and names of personnel present for walk thru.
3- Ship Name/Hull Number: Indicate ship name and hull number of the location of the walk thru.
4- Location: Indicate location where ship is moored or docked, i.e. name of contractor facility or pier at Naval Base or Station.
5- Prime Contractor: Indicate prime contractor who has the contract with the SUPERVISOR.
6- Date: Indicate date of walk thru being accomplished.
7- Time: Indicate start time (24 hour clock) of walk thru being accomplished.
8- No. (number): List sequentially, each discrepancy noted during the walk thru. Number will continue where the numbering left off the previous day, until the end of the availability.
9- Point of Contact: Indicate Company/Command identified with the discrepancy.
10- Date Corrected: Date condition was corrected. If condition is not corrected, condition will be carried over to the next walk thru until condition is corrected.
11- Location: Indicate location of the condition, i.e. space number or frame number.
12- Discrepancy: Indicate condition that needs corrective action, be specific as necessary.
13- Corrective Action: Indicate corrective action taken to correct the condition and who is responsible for the corrective action.
14- Code: Indicate code, located at the bottom of ATTACHMENT A that condition can be grouped with, i.e. lines on deck causing trip hazard would use code 14- Lines and Leads Hazards.

Type Codes: 1-Housekeeping, 2-Fire Prevent./Fire Equipment, 3-Hot Work., 4-FZ Boundary, 5-Electrical, 6-Compress Gas/Hoses/Bottles/Manifolds, 7-Scaffolding, 8-Egress/Exit, 9- Walking/Working Surfaces, 10-PPE, 11- Containment, 12-Unguarded/Edges/Holes/Openings/Fall Protection, 13-Confined/Enclosed Spaces, 14-Lines & Leads Hazards, 15-Equip. Adrift & Rollback, 16-Ventilation, 17-Machine Guarding/Hand Tools, 18-Crane/Rigging, 19-Environmental & Hazardous Material/Communication, 20-Environmental Protection, 21-General Safety

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-72
DATE: ***01 OCT 2017***
CATEGORY: I

1. SCOPE:

1.1 Title: Physical Security at a Private Contractor Facility; accomplish

2. REFERENCES:

2.1 DODI 2000.16 DOD ANTITERRORISM (AT) PROGRAM IMPLEMENTATION: DOD FORCE PROTECTION CONDITION (FPCON) SYSTEM

2.2 33 CFR Part 165, Regulated Navigation Areas and Limited Access Areas

2.***3*** 33 CFR Part 334, Danger Zone and Restricted Area Regulations

3. REQUIREMENTS:

3.1 The requirements of 3.2.5, 3.2.6, 3.2.7, 3.2.8, and 3.2.9 are Force Protection measures the Contractor shall be able to meet at a Private Contractor Facility under Force Protection Conditions Normal, Alpha, Bravo, Charlie, and Delta, respectively. The solicitation shall define the Force Protection Condition. ***Additional measures may be directed by the SUPERVISOR in accordance with 2.1.*** Implementation of any other measures, when directed by the SUPERVISOR, will be the subject of an equitable adjustment.

3.2 Provide a written plan which shall be implemented for the protection of personnel, U.S. Naval vessels, ***Government-owned floating dry docks,*** work in process,and the material and equipment to be installed therein, at the Contractor's facility, which addresses the requirements of this Standard Item. The written plan shall, as a minimum, be identified as "For Official Use Only (FOUO)".

3.2.1 Provide written designation to the SUPERVISOR of the individual who will be in charge of the security effort.

3.2.2 Attend security coordination meeting with Ship's Force and the SUPERVISOR to brief the Contractor's security plan and procedures prior to security conference of 3.2.3.

3.2.3 Conduct a security conference with federal, state, and local authorities, Ship's Force, and the SUPERVISOR within 45 days prior to ship's arrival to ensure all parties are in agreement with the security procedures while the ship is in port.

3.2.4 Coordinate the establishment ***and enforcement*** of the land and water areas adjacent to U.S. Naval vessels as restricted areas or limited waterway areas in accordance with 2.***2*** or 2.***3***, in cooperation with the Navy, U.S. Coast Guard, and Army Corps of Engineers.

3.2.5 The Security Plan shall include the roles and responsibilities for application of deadly force in the protection of US Navy assets and crew.

3.2.***6*** Under Force Protection Condition NORMAL, establish and maintain physical security boundaries, positive access controls, and other security measures to provide safeguards against hazards, including unauthorized entry, malicious mischief, theft, espionage, sabotage, and terrorism at Contractor's facility in accordance with Attachment A, to include the following:

3.2.***6***.1 Perimeter physical barriers

3.2.***6***.2 Perimeter openings control

3.2.***6***.3 Access and circulation control

3.2.***6***.4 Armed security force

3.2.***6***.5 Protective lighting

3.2.***6***.6 Signs and posting of boundaries

3.2.***6***.7 Security force communications

3.2.***6***.8 Random antiterrorism measures (RAM)

3.2.**7** Under Force Protection Condition ALPHA, establish and maintain the following requirements in addition to 3.2.5:

3.2.**7**.1 Additional plant boundary protection

3.2.**7**.2 Assistance from state, local, and other law enforcement agencies

3.2.**7**.3 Increased personnel, property, and perimeter security checks

3.2.**7**.4 Increased security force manning commensurate with the additional actions directed under this section

3.2.**7**.5 Increased waterfront surveillance

3.2.**7**.6 Place vehicle barriers to reduce ease of vehicular access adjacent to the ship

3.2.**7**.7 Brief the security force and the SUPERVISOR concerning the threat, the security precautions being implemented, and what action is to be taken with respect to strangers, unidentified vehicles, abandoned parcels or suitcases, or unusual activity in or near the Contractor's facility.

3.2.**7**.8 Increase security spot-checks of vehicles, persons, and buildings near U.S. Naval vessels.

3.2.**7**.9 Limit access points for vehicles and personnel commensurate with performance of the Job Order.

3.2.**7**.10 Inspect 100 percent of commercial vehicles entering the controlled industrial area and/or piers.

3.2.**7**.11 Test procedures for mass notification.

3.2.**7**.12 Review requirements related to implementing additional security actions in the event of an increased threat.

3.2.**7**.13 Review barrier plans.

3.2.***8*** Under Force Protection Condition BRAVO, establish and maintain the following requirements in addition to 3.2.5 through 3.2.6:

3.2.***8***.1 Request the Captain of the Port or U.S. Coast Guard District Commander to activate the Naval Vessel Protection Zones in accordance with 2.***2***.

3.2.***8***.2 Establish communications with state, local, and other law enforcement, fire, and emergency management agencies.

3.2.***8***.3 At the beginning of each workday, as well as at random intervals, inspect the interior and exterior of buildings in regular use for suspicious packages. Secure and regularly inspect buildings, rooms, and storage areas not in regular use for unusual conditions or suspicious activity.

3.2.***8***.4 Clear the area within 100 feet (30.5 meters) of U.S. Naval vessels of all non-mission-essential materials and vehicles as determined by the SUPERVISOR.

3.2.***8***.5 Review requirements related to implementing additional security actions in the event of an increasing threat.

3.2.***8***.6 Identify paths for critical materials to maintain production.

3.2.***8***.7 Brief all employees working at the facility, including the ship's crew and subcontractor employees, concerning the threat,

the security precautions being implemented and what action is to be taken with respect to strangers, unidentified vehicles, abandoned parcels, containers or suitcases, and any other suspicious or unusual activity.

3.2.***8***.8 Increase security presence and surveillance, and randomly inspect vehicles, persons and accompanying items entering the facility.

3.2.***8***.9 Review mail and material screening procedures at the facility.

3.2.***9*** Under Force Protection Condition CHARLIE, establish and maintain the following requirements in addition to 3.2.***6*** through 3.2.**7**:

3.2.***9***.1 Inspect the interior and exterior of buildings in regular use for suspicious activity or objects at frequent intervals.

3.2.***9***.2 Increase protection for crew berthing to reduce vulnerability.

3.2.***9***.3 List work that would be required to permit safe relocation of the vessel and its crew to the nearest Government facility as designated by the SUPERVISOR.

3.2.***9***.4 Determine work that will be stopped if the next higher Force Protection Condition is implemented. Determine a list of and inform mission-essential personnel, including Contractor work force. Communicate critical Work Items to the SUPERVISOR, ship's Commanding Officer, and/or Shipyard Commander.

3.2.***9***.5 Increase surveillance in and around waterside perimeter and facilities. Position floats, work boats, and barges along the sides of the U.S. Naval vessel and any occupied berthing barges to create a buffer zone.

3.2.***9***.6 Limit access points to strictly enforce entry control. Inspect all vehicles entering the controlled industrial area and/or pier. Review access procedures to ensure no unauthorized personnel gain access into the facility.

3.2.***10*** Under Force Protection Condition DELTA, establish and maintain the following requirements in addition to 3.2.***6*** through 3.2.***9***:

3.2.***10***.1 Immediately notify state and local law enforcement agencies and the U.S. Coast Guard of any knowledge of terrorist activity, suspicious persons or criminal activity.

3.2.***10***.2 Limit access points to the absolute minimum.

3.2.***10***.3 Strictly control all facility access points, ensure positive identification of all personnel, and search all vehicles and their

contents, suitcases, briefcases, and packages entering the Contractor's facility.

3.2.***10***.4 Accomplish continuous security patrols of all areas of the facility, to include the waterfront, occupied by U.S. Naval vessels and personnel.

3.2.***10***.5 Prepare U.S. Naval vessels for movement away from the Contractor's facility when directed by the SUPERVISOR.

3.2.***10***.6 Discontinue work except that directly related to the integrity of the vessel and as otherwise directed by the SUPERVISOR.

3.2.***10***.7 Implement the plan to deny access to individuals not essential or critical to the overall mission of protecting and/or moving vital Navy assets onto the facility and occupied buildings.

3.3 Submit one legible copy, in approved transferrable media, of the plan to the SUPERVISOR for review and approval no later than 15 days prior to availability start date.

3.3.1 Accomplish the requirements of the approved plan.

3.3.2 Any changes at the Contractor's facility affecting physical security or the approved plan shall be submitted to the SUPERVISOR for approval within 24 hours.

3.4 Provide procedures for coordinating the Contractor's security efforts with those of the SUPERVISOR, the Commanding Officer's designated representative, and any subcontractor when using the subcontractor’s facility to host the vessel.

3.4.1 Identify whose physical security plan, prime or subcontractor, will be used for the availability.

3.5 Prepare an itemized statement of cost incurred for the work covered by this Standard Item. Submit one legible copy, in approved transferrable media, of the statement to the SUPERVISOR within 30 days of delivery or redelivery (as applicable) of the ship. The statement shall itemize the total direct labor hours with the applicable direct labor rates, overhead, General and Administrative (G&A) and/or other indirect rates, material, material handling charges, subcontractor costs, Other Direct Costs (ODC), and freight costs (as applicable). Where final overhead rates are not available, use the most current billing rate(s).

3.5.1 The Government may perform an audit of the Contractor's statement of cost incurred. The Contractor, upon request, shall make available to the SUPERVISOR all records, related correspondence, and the substantiating data upon which the statement of cost incurred is based.

4. NOTES:

4.1 U.S. Naval vessel means any vessel owned, operated, chartered, or leased by the U.S. Navy; any pre-commissioned vessel under construction for the U.S. Navy, once launched into the water; and any vessel under the operational control of the U.S. Navy or a Combatant Command.

4.1.1 For a non-nuclear new construction vessel in a private shipyard, a physical port security barrier or a dedicated security boat, detailed in Attachment A, are applicable at Crew Move Aboard.

4.2 Controlled Industrial Area (CIA) means an area of the shipyard in which construction, conversion, repair, or overhaul of U.S. Navy vessels is conducted.

4.3 USFF AT OPORD 3300 (series) provides general security requirements for Fleet Activities. The SUPERVISOR will use this reference as a guide in applying force protection measures appropriate to the unique situation at each Contractor's facility.

4.4 A vehicle is defined as a means of transportation that transports people or objects.

ATTACHMENT A
OTHER SECURITY MEASURES

1. Perimeter Physical Barriers:

a. Physical barriers, including both natural (e.g., mountains, swamps, thick vegetation, rivers, bays, cliffs) and structural (e.g., Port Security Barriers (PSB), fences, walls, doors, gates, vehicle barriers) which control, delay, impede, and discourage access by unauthorized persons. To be effective, such barriers shall be augmented by armed security force personnel or other means of protection and assessment.

b. Physical barriers shall be employed along Contractor facility perimeters. The barrier or combination of barriers used shall afford an equal degree of continuous protection along the entire perimeter.

c. Structural barriers such as fences or walls shall be a minimum of 8 feet in height, and any uncontrolled opening shall be securable to afford protection against unauthorized entry.

d. The waterfront security required to protect the Navy asset is dependent on the asset. ***Damage to the dry dock gate could result in flooding of the dry dock resulting in possible damage or loss of the vessel. Therefore, the dry dock gate is not considered to be a physical or structural barrier and must be protected. Additionally, floating drydocks shall be protected commensurate with the provisions for the docked asset.***

e. Closed Circuit Television (CCTV) installs will be planned for installation by using Chapter 4 of the Unified Facilities Criteria (UFC) 4-021-02NF. Plans will be submitted to the SUPERVISOR for approval, prior to installation. This UFC document provides guidance on how to design electronic security systems required by the current antiterrorism/force-protection environment.

f. The patent number for the original Port Security Barrier (PSB) is 6681709 B1. The patent number for the PSB-T is 7401565 B2. There is no separate patent number for the PSB-P or PSB-V variant. At the time of publishing SI 009-72 FY-12 (CH-2), Harbor Offshore Barriers (5720 Nicolle St., Ventura, CA 93003) and Truston Technologies, Inc. (520 Ridgely Ave., Annapolis, MD 21401) were both licensed to manufacture the original PSB as well as the variants.

Asset	Security measures
For Patrol Coastal (PC), MSC	- Adjacent landside security (patrols, surveillance, pier access control) no special requirements in waterways. - Identify restricted area waterways with buoys and signs.
Surface combatants, Amphibious ships, mine warfare, ***auxiliary ships (USS only), and MSC Naval Auxiliary (Cargo-Laden), and MSC OCONUS repair facilities.***	The requirements above and - Security Zone per 3.2.4 - Use of a Port ***Security Barrier (see 1.d and 1.f), numbered Fleet Commander-approved barge or other physical barrier*** (dependent on expected geographic and environmental conditions as determined by the SUPERVISOR) per 1.d above, or other physical barrier approved by the numbered Fleet Commander. - In areas where the cognizant SUPERVISOR agrees the use of waterborne barrier(s) is not in the best interest of the US Navy, a dedicated waterborne security boat shall patrol within 200 yards of the protected vessel equipped with a bullhorn, night vision device, spotlight, marine flares, lethal and non-lethal weapons, and a two-way communications device according to the specifications described in Addendum 1. ** ***Note: If the primary security measure is unavailable, then the Private Contractor Facility shall ensure adequate backup security measures are in place to maintain the security posture as per the associated FPCON***
Carriers, submarines (see next row for SSBN)	The requirements above and - Electronic water/waterside security system to include, but not limited to, closed-circuit television for the purposes of surface craft detection. - Use water barriers to prevent direct unchallenged access from small boat attacks.
SSBN	The requirements above and - Per SECNAVINST S8126.1 - Use water barriers to stop small boat threat

2. Perimeter Openings: Openings in the perimeter barrier shall be operated by the contractor and shall be kept to the minimum necessary for the safe and efficient operation of the Contractor facility. Access through such openings shall be controlled, or the openings shall be secured.

3. Access and Circulation Control:

   a. A system of personnel and vehicle movement control is required at Contractor facilities. The degree of control shall be in keeping with efficient operations yet afford defense-in-depth to provide graduated levels of protection.

   b. Armed or unarmed sentries may be assigned to check identification at pedestrian and vehicle entry control points to restrict and control movement by vehicles and unauthorized personnel from gaining access into the facility.

   c. The facility shall coordinate with the local postal and courier services in developing a plan for ensuring that all mail and courier delivered packages to the facility are properly screened by the delivery service prior to being delivered to the contractor facility's mailroom.

4. Armed Security Force: The Contractor security force shall consist of designated persons specifically organized, trained, and equipped to provide physical security. ***Security Force shall be armed with lethal and non-lethal weapons, and qualified in accordance Federal and/or State laws to carry and use firearms in the performance of protecting personnel and/or property.***

5. Protective Lighting:

   a. Protective lighting, to include work lighting, increases the effectiveness of security forces and has considerable deterrent value.

   b. Contractors shall provide adequate illumination to discourage or detect attempts to enter facilities and reveal the presence of unauthorized persons within such areas.

   c. Lighting shall support security force activities such as identification of badges and personnel at perimeter openings, surveillance of facility perimeter/avenues of approach, and inspection of unusual or suspicious circumstances.

6. Signs and Posting of Boundaries:

   a. Trespass laws applicable to the jurisdiction in which the facility is located will govern signs and posting of perimeter boundaries at Contractor facilities.

b. Size, placement, and use of any language in addition to English should be appropriate for the stated purpose. Signs will read essentially as follows:

WARNING
RESTRICTED AREA
KEEP OUT
Authorized
Personnel Only

c. Signs shall be posted at regularly-used points of entry and at intervals along the facility perimeter such that any reasonable person would conclude that everyone crossing the boundary into the facility would have been informed of the above.

7. Security Force Communications:

a. The activity security force requires sufficient equipment to maintain continuous, secure 2-way voice communications between elements (fixed/mobile posts, and supervisory personnel) of the security force and U.S. Naval vessel's watch section. Establish communications between the Contractor's security force and the U.S. Naval vessel's watch section.

b. The facility shall maintain a communication system for use in emergencies or crisis situations to facilitate effective two-way voice communications among state and local law enforcement agencies and the U.S. Coast Guard.

c. The facility shall establish a communication system, pre-recorded and/or live-voice, but capable of broadcasting information to all building occupants or personnel in the immediate vicinity during or prior to an emergency or crisis situation.

8. Random Antiterrorism Measures (RAM): As a deterrent, randomly apply the measures from higher Force Protection Conditions and other RAM including:

a. Keep personnel involved in implementing increased security requirements on call.

b. Inspect deliveries to protect against the introduction of unauthorized material.

c. Cars and other non-mission essential items shall be moved 100 feet from U.S. Naval Vessels and buildings where the crew is located or work is in progress.

d. Inspect mail for letter or parcel bombs.

e. On entry of visitors to the facility, physically inspect them and accompanying items.

f. Search vehicles entering the facility.

g. Erect barriers and obstacles to provide additional traffic controls to areas where U.S. Naval Vessels and crews are located.

h. Consult local authorities about closing public roads and facilities that might make sites more vulnerable.

i. Other site-specific RAM that shall be incorporated into the Contractor's physical security plan and/or company-specific implementation procedures.

Addendum One to Attachment A
of Standard Item 009-72

Waterborne Security Boats

Mission

The boats are primarily used to provide a dedicated waterborne presence and deterrence in the immediate vicinity of no more than three (3) U.S. Naval Assets. The word ”dedicated” is defined as on-site, 24-hours a day, 7 days a week, and responsive solely to the operational confines of the protected asset(s). Normally, a single waterborne security boat will be designated for each U.S. Naval Asset. Waterborne security boats must be capable of conducting continuous patrols in the immediate vicinity of the protected asset(s), or continuous monitoring of a patrol zone when assigned to protect clustered U.S. Naval Assets (a patrol zone shall not exceed 200 yards and shall not include more than 3 protected assets).

Waterborne security boats will be used to provide restricted area enforcement by providing a layered defense and deterrence mechanism. This includes the ability for early detection of intruders under day/night, and all-weather conditions.

Projected Operating Environment

The projected operating environment of the waterborne security boats will normally be in protected harbors or inland waterways. These boats will be expected to operate in varying temperatures depending on the climate at the location the boat(s) will be used. Temperatures can be expected to vary from below 32 degrees Fahrenheit to above 100 degrees Fahrenheit. Storm conditions and warnings often issued in the operating environment include: small craft, gale, storm, and hurricane warnings.

General Characteristics

There are no specific hull material requirements for waterborne security boats. Waterborne security boats must be visible from distances of at least 500 yards to the unaided eye, during periods of unrestricted visibility and must possess all safety equipment required by federal and local regulations. Waterborne security boats must also display a placard on both sides of the vessel with the word "Security" of sufficient size and reflective composition to be visible from 500 yards to the unaided eye, during periods of unrestricted visibility (250 yards during periods of low-light) and in accordance with federal and local regulations. These boats must possess a hailing mechanism capable of warning/hailing approaching craft at 500 yards. Hailing capability may consist of modified human voice (e.g., through the use of a bull horn, PA system, etc.), or mechanical (e.g., siren, pulsating tone, etc.).

The boat must have a weather resistant spot/flood light capable of rotating 360 degrees with instant start/restart and at least 6,000,000 candlepower.

The boat must have a fully operable marine band radio (VHF).

Length range: 27 feet to 40 feet And why:

This size is necessary for safety and mission accomplishment, ease of discernment, crew accommodation, visual deterrent, and ease of maneuverability when responding to contacts of interest during all-weather patrols.
Breadth 8 feet 6 inches And why:

The minimum breadth of 8 feet 6 inches is necessary to provide a stable platform, crew accommodation, visual deterrent, ease of maneuverability, safety and mission accomplishment when responding to contacts of interest during all-weather patrols.

Maximum Draft: 4.5 feet The maximum draft of 4.5 feet is necessary for ease of maneuverability in and around the protected assets.

Number of Crew: Two. At least one coxswain and one observer/lookout shall be assigned to each boat for the duration of the patrol period. These personnel shall be qualified in the operation of the security boat, and shall be qualified with, and armed with personal protective weapons in accordance with SECNAVINST 5500.29C, DoDD 5210.56, ***as permitted by*** state and local regulations.

Required Cargo Capacity or Deck Space: Stowage space must be sufficient to accommodate at least four (including 2 spare) life vests, a flood light, a first-aid kit, a back board, and specialized tactical equipment, etc.

Propulsion System (e.g., Diesel inboard with outdrive, Diesel inboard with waterjet, or gasoline outboard) and why:

The propulsion system must be able to conduct multiple idle/sprint missions during each patrol period. Because of the limited operating area, propulsion systems must be capable of rapidly responding to a contact of interest (normally within the 200 yard operating zone) and rapidly reversing.

Speed 20kts. A minimum speed of 20kts is necessary to provide the capability to rapidly respond to contacts of interest or rapidly move out of the line of fire from shipboard responders in the event of a deadly engagement.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-74
DATE: ***01 OCT 2017***
CATEGORY: I

1. SCOPE:

1.1 Title: Occupational, Safety and Health Plan; accomplish

2. REFERENCES:

2.1 Standard Items

2.***2*** 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

2.***3*** 46 CFR 164.009, Noncombustible Materials for Merchant Vessels

2.***4*** Safe Work Practices for Marine Hanging Staging: An OSHA Guidance Document, April 2005

2.***5*** Joint Fleet Maintenance Manual (JFMM)

2.***6*** S0400-AD-URM-010/TUM, Tag-Out User's Manual

2.***7*** S9086-KC-STM-010/CH-300, Electric Plant – General

2.***8*** 29 CFR Part 1904.7, Recording and Reporting Occupational Injuries and Illness, General Recording Criteria

3. REQUIREMENTS:

3.1 Establish, document, implement, and maintain a written Occupational Safety and Health Plan appropriate for the work to be accomplished. Provide a copy of the Occupational Safety and Health Plan to the SUPERVISOR upon request. At a minimum, the Occupational Safety and Health Plan shall include the following elements:

3.1.1 Method(s) of communicating potential hazards, prior to the start of any task, to contractor's employees, subcontractor employees, and other potentially affected personnel.

3.1.1.1 Hazards to be addressed shall include but not be limited to emergency evacuation and muster policy, confined space, and energy control.

3.1.2 A process for performing a Job Safety Analysis/Job Hazard Analysis (JSA/JHA) for:

3.1.2.1 Processes and equipment new to the worksite.

3.1.2.2 Existing processes and equipment that have been involved in mishaps or near misses.

3.1.2.3 Maintain a copy of each JSA/JHA which shall be available for review by the SUPERVISOR upon request.

3.1.3 A process for identification, communication, abatement, and prevention of unsafe conditions and work practices.

3.1.4 Method(s) to account for employees and subcontractors working in isolated areas, e.g. Confined spaces.

3.1.5 Method(s) to ensure work areas and walkways are adequately illuminated.

3.1.6 Method(s) to establish and maintain good housekeeping practices.

3.1.7 Method(s) to ensure that medical services and first aid are readily accessible.

3.1.8 Method(s) to provide adequate and readily accessible sanitation facilities.

3.1.9 A process for notifying the Quarterdeck and initiating emergency response.

3.2 Update the Safety Plan as circumstances warrant or at the request of the SUPERVISOR.

3.3 Provide a Safety Point of Contact to the SUPERVISOR before each project.

3.4 Provide appropriate Personal Protective Equipment (PPE) for employees and monitor utilization in accordance with 2.***2***.

3.5 Mark or tag material and equipment brought aboard naval facilities and vessels. Marking or tags must endure the repair process, and must stay attached and/or be readable until the material or equipment is dismantled.

3.5.1 Marking/tags shall display the company name, point of contact, phone number, item description and contents.

3.6 Provide the SUPERVISOR a complete list of subcontractors (e.g., company name) hired by the contractor prior to subcontractor(s) commencing work aboard naval facilities or vessels.

3.6.1 Contractor shall monitor, inspect, oversee, and abate hazardous or deficient conditions related to the conduct and work practices of subcontractor(s).

3.7 Ensure Material Handling Equipment (MHE) and Aerial Work Platforms (AWP) are operated and maintained in accordance with 2.***2*** and manufacturer's specifications.

3.7.1 Ensure operators of MHE and AWP meet applicable training and licensing requirements and provide documentation to the SUPERVISOR upon request.

3.7.2 Ensure operators conduct a daily operational check of the MHE or AWP before use.

3.7.2.1 Maintain copies of the daily operational checks for the duration of the performance period of the prime contract and provide copies to the SUPERVISOR upon request.

3.8 "Screw type" hose clamps are prohibited on any pressurized hose (e.g., compressed gas and air hoses).

3.9 Temporary lights shall have 3-conductor cable, guard or shield, hook, and lamp holder. Exposed non-current-carrying metal parts of the fixture shall be grounded either through a third wire in the cable containing the current conductors, or through a separate wire that is grounded at the fixture's voltage source.

3.9.1 Temporary lighting fixtures shall not be used to power portable electric tools.

3.9.2. Maintain temporary lights in a safe condition. Splices shall not be permitted in magazine and ammunition handling spaces.

3.10 Temporary services shall be suspended using non-combustible high temperature devices, brackets, or material that meets test requirements of 2.***3***. Plastic tie wraps, string, rope, or other combustible material shall not be used.

3.10.1 All temporary services shall be positively identified with durable unique markings that include maintenance activity name, service type, location, and shore side shut-off points. Tags shall be located (at a minimum) at the source, point of entry aboard ship, at each connection point (including quick disconnects), and termination point.

3.10.2 Identify vital temporary services with a unique marking or tag at the shore side shut-off location. Markings or tags shall endure the repair process, and shall stay attached and readable until the vital temporary service is no longer in service. Vital temporary services shall be determined by the SUPERVISOR.

3.11 Rigging of temporary services, such as but not limited to hoses, electrical lines, welding leads, and temporary lights shall be kept clear of

the decks utilizing temporary support trees or ship's structural members, such as beams, braces, and welded brackets and be arranged to minimize tripping and other safety hazards and to allow free access through doors, hatches, and passageways.

3.11.1 Temporary service lines shall be routed to allow emergency access and egress to all areas of the ship and shall not impede damage control and watchstander performance of duties. Where appropriate, run temporary services outboard to keep passageways clear.

3.11.2 Remove temporary services from the ship when no longer needed.

3.11.3 Evaluate temporary services during the daily fire prevention and housekeeping inspection made jointly with the SUPERVISOR and Ship's Force. Discrepancies shall be promptly corrected.

3.11.4 Shipboard temporary ventilation systems used for exhausting toxic contaminants and/or flammable vapors shall be constructed so that ducting within confined and enclosed spaces is under negative pressure.

3.11.4.1 Use fire retardant ventilation ducting. Proper documentation of fire retardancy shall be available for review upon request of the SUPERVISOR.

3.12 Each employee shall have a flashlight or other adequate light source onboard a navy vessel.

3.13 Notify personnel of lifting operations by audible alerts during crane operations (e.g., whistles or horns). Audible alerts shall be utilized throughout the lifting evolution.

3.14 Comply with the fall protection requirements of 2.***2***.

3.15 Scaffolding shall be built, maintained, ***and dismantled*** in accordance with 2.***2*** and manufacturer's specifications or under the direction of a Professional Engineer.

3.15.1 Provide manufacturer's specifications to the SUPERVISOR upon request.

3.15.2 Tag all scaffolding. Tags must endure the repair process, and must stay attached and be readable.

3.15.2.1 Tags shall display the stage of completion, scaffold load capacity, and availability for use.

3.15.3 Erect scaffolding so that a swing gate is installed at each working level accessed by a ladder.

3.15.4 Ensure marine hanging scaffolding meets the guidance provided in 2.3.

3.15.5 When there is a danger of tools, materials, or equipment falling from a scaffold and striking employees below during the erection, dismantling, or altering of scaffolding, the area below the scaffold to which objects can fall shall be barricaded and adequately identified with signs and danger tape. Employees not involved with the scaffolding operation shall not be permitted to enter the hazard area.

3.16 Ensure protective measures are taken in accordance with 2.***2*** before creating a deck opening or an unguarded edge.

3.16.1 Deck openings and unguarded edges shall not be left unprotected for any amount of time.

3.17 Crimping or pinching of fuel gas/oxygen/compressed gas hoses, air hoses, or hoses carrying hazardous/toxic/flammable materials is prohibited. All hoses shall be disconnected at the manufacturer's fittings. Prior to disconnecting hoses from equipment/tool, pressure shall be released by disconnecting the hose from the source, e.g., manifold or gas cylinder.

3.18 Notify the SUPERVISOR and accomplish the requirements of 2.***2***, Volume IV, Chapter 10 of 2.***5***, and 2.***6*** prior to working aloft.

3.18.1 Accomplish the requirements of the vessel's work aloft instruction and utilize the vessel's working aloft request form.

3.18.1.1 The vessel's working aloft request form shall be routed in accordance with the ship's aloft instruction for permission for working over the side or in aloft zones. Do not enter aloft zones or be suspended over the side by a crane without first obtaining written permission from the Officer of the Deck (OOD) in the form of working aloft request form.

3.18.1.2 Verify that the working aloft request form is active prior to going aloft each time.

3.18.2 Provide and use personal fall arrest system (PFAS), working lanyard, and climber safety device when going aloft where a climber safety rail is installed. If a climber safety rail is not installed, use a double lanyard configuration.

3.18.3 In the absence of a properly guarded work platform, position a safety observer on deck near the work being performed. The safety observer shall keep the deck area beneath the work aloft free of unnecessary personnel.

3.18.4 In case of an emergency, the safety observer shall notify the Quarterdeck or emergency services.

3.19 Accomplish safety precautions as specified in 2.**7** for work on electrical/electronic circuits and equipment.

3.19.1 Obtain written authorization from the ship's Commanding Officer before testing or entering components which are energized at a value greater than 30 volts.

3.20 Notify the SUPERVISOR and vessel's Quarterdeck immediately by verbal means of each incident (accident, injury, fire, flooding, and electrical shock) occurring on the vessel, dry dock or pier/berth involving contractor/subcontractor personnel.

3.20.1 Secure and preserve the scene until released by the SUPERVISOR.

3.20.2 Submit one legible copy, in approved transferrable media, of a formal written report, Attachment A, of the incident to the SUPERVISOR within one day of each accident requiring medical treatment, each electrical shock, each fire, or any incident when requested by the SUPERVISOR. Provide daily updates within one day upon request by the SUPERVISOR, until the final report is submitted. The written report shall contain the name of each injured person, date and time of incident/fire, extent of each personal injury or property damage, contractor/subcontractor name, Job Order/Work Item Number, type of incident/fire, location of event (ship name and hull number, space, compartment), a brief description of the event including occurrences leading up to the incident/fire, equipment involved, Contract Number, witness and/or individuals involved, short term and long term corrective action, and root cause analysis.

3.21 Repair and maintenance employees working aboard vessels, dry docks and piers shall have a valid 10 hour OSHA Maritime Shipyard Employment Course #7615 or NAVSEA-approved equivalent completion card within 60 days of employment and shall maintain the qualification.

3.21.1 Submit one legible copy, in hard copy or approved transferrable media, of a report listing the OSHA outreach training program report as documentation of completing Course number 7615 until completion cards are received to the SUPERVISOR upon request.

3.21.2 The authorized maritime trainer shall have successfully completed the OSHA 5400 trainer course in occupational safety and health standards for the maritime industry. The authorized maritime trainer shall have a current OSHA Training Institute ID number and shall follow the OSHA outreach training program guidelines.

3.21.3 Maintain current copies of the training documents required by the guidelines for reference by the SUPERVISOR. Submit one legible copy in approved transferrable media when requested by the SUPERVISOR.

3.22 Install a temporary general announcing system which can be heard or seen in spaces that are not normally manned and the ship's general announcing system cannot be heard, such as occupied tanks and voids, including tanks entered through hull cut access when in dry dock. The temporary general announcing system must be approved by the SUPERVISOR prior to the start of work.

3.23 Install casualty reporting non-dial red telephones with an indicator light that report to the Ship's Quarter Deck when the Shipboard Casualty Reporting System is nonoperational. Install telephones in each fire zone at

least every 100 feet of ship's length on decks/platforms, placed on alternating sides of the deck/platform and located at a junction with athwartship passageways. Install a telephone on each level and each fire zone of the ship's superstructure, such that a telephone is within 100 feet of any part of the level. Install telephones in each space of decks/platforms below the Damage Control or Main Deck less than 100 feet of ship's length, within ten feet of all exit ladders. Install a telephone within ten feet of the exit to each tank open for maintenance. Label each phone with space location.

3.24 The use of tobacco products (cigarettes, cigars, smokeless tobacco, electronic cigarettes, and electronic nicotine delivery systems) is prohibited onboard vessels, adjacent piers and dry docks, except in designated areas.

3.25 Food and beverages (excluding water and "hydration supplements," e.g., Gatorade) shall not be permitted aboard vessels, except in areas designated by the SUPERVISOR.

3.26 Property taken onboard, such as bags and tool boxes, shall be identified to include organization name, employee name and badge number.

3.27 Label compressed gas cylinders or cylinder storage racks with company name or unique identifier.

3.27.1 Secure all compressed gas cylinders in a cylinder rack.

3.27.2 Compressed gas cylinders shall not be secured to pier or vessel structures.

3.27.3 Secure all compressed gas cylinders for transportation by pallet or cylinder rack.

3.28 Submit a written request to use Ship's Force services (e.g., air, water and electrical power). Request shall include rational for deviation, duration of use, and type and description of equipment that will be utilizing ship's services.

3.28.1 Submit one legible copy, in approved transferrable media, of each request to the SUPERVISOR.

4. NOTES:

4.1 The term "medical treatment" is defined in 2.***8.***

4.2 Requests for deviations/waivers of training requirements will only be approved by NAVSEA and on a case-by-case basis. This includes equivalent training for foreign nationals.

4.3 The term "repair and maintenance employee" is defined as one whose employment relates to or is in conjunction with ship repairing, shipbuilding, or shipbreaking work, including, but not restricted to, inspection, testing,

and employment as a fire watch. This excludes employees who provide incidental services that do not influence shipyard employment such as delivery services.

4.4 A "quick disconnect" is a coupling or connecting device/system designed to permit easy and immediate separation of lines without the use of tools and to ensure the contents do not escape.

4.5 Meeting the requirements of 3.21.1 satisfies the requirement of 3.21.

4.6 OSHA 5400 trainers meet the requirement of 3.21.

4.7 When a Fact Finding Report is directed in accordance 009-120 of 2.2, complete initial submission of Attachment A as directed by this Standard Item, report corrective action and root cause analysis in accordance with 009-120 of 2.1.

INCIDENT REPORT		
Report #		
INITIAL REPORT ☐	REQUESTED UPDATE ☐	FINAL REPORT ☐

TYPE OF INCIDENT:

NAME(S) OF INJURED (if applicable):

INCIDENT DATE: TIME:	COMPANY: SUPERVISOR:
LOCATION OF INCIDENT:	TYPE OF INJURY OR FIRE:
CAUSE OF INCIDENT:	EQUIPMENT INVOLVED:
WORK ITEM NUMBER:	CONTRACT NUMBER:

WITNESS AND/OR INDIVIDUALS INVOLVED

NAME(S)	DEPT.	COMPANY

DESCRIPTION OF INCIDENT

DISPOSITION OF INJURED (if applicable)

IMMEDIATE CORRECTIVE ACTION

INVESTIGATED BY (NAME):	TITLE:
SIGNATURE OF INVESTIGATOR:	DATE:

INCIDENT REPORT	
Report #	

LONG TERM CORRECTIVE ACTION

ROOT CAUSE ANALYSIS

INVESTIGATED BY (NAME):	TITLE:

SIGNATURE OF INVESTIGATOR:	DATE:

Incident Report Instructions

REPORT NUMBER- Unique tracking number created by contractor

TYPE OF INCIDENT- Injury, fire or near miss

NAME(S) OF INJURED- Self Explanatory

INCIDENT DATE: - Self Explanatory
TIME: - Self Explanatory

COMPANY: - Prime and subcontractors involved

SUPERVISOR – Supervisor of employee(s) involved

LOCATION OF INCIDENT: - Base/Yard, Ship name and hull number, space number and compartment name

TYPE OF INJURY OR FIRE – i.e. broken arm, laceration to head or Class A, B, C fires, smoldering

CAUSE OF INJURY – i.e. Equipment failure, PPE, process

EQUIPMENT INVOLVED – Equipment working on and equipment being used to cause incident

WORK ITEM NUMBER – Work Item being accomplished when incident occurred

CONTRACT NUMBER: - Contract Number assigned by government agency i.e. RMC, Alteration Installation Team (AIT) Sponsor.

WITNESS AND/OR INDIVIDUALS INVOLVED – Name, company of witnesses and or individuals involved with the incident.

DESCRIPTON OF INCIDENT OR NEAR MISS – Short description of events leading up to incident and extent of injuries and or damage to equipment.

DISPOSITION OF INJURED – i.e. Transported to hospital via ambulance or POV, transported to clinic, released from hospital, name of hospital or clinic, limited duty or loss time (if known).

IMMEDIATE CORRECTIVE ACTION – i.e. Scene/space secured, ship notified (who and when), RMC notified (who and when) clean up of blood, equipment secured fire debris cleaned up.

INVESTIGATED BY – Self Explanatory.

TITLE – Self Explanatory.

SIGNATURE OF INVESTIGATOR – Self Explanatory.

DATE – Self Explanatory.

LONG TERM CORRECTIVE ACTION – What action(s) were taken so that incident does not reoccur, i.e. training, safety stand down or process/policy change.

ROOT CAUSE ANALYSIS – Process by which you will identify the cause or contributing factors of the incident.

Note: Attach additional information as necessary.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-86
DATE: 01 OCT 2017
CATEGORY: II

1. SCOPE:

1.1 Title: Recovery and Turn-In of Ozone Depleting Substance (ODS); accomplish

2. REFERENCES:

2.1 49 CFR Part 173, General Requirements for Shipments and Packagings

2.2 Department of Defense Ozone Depleting Substances Turn-In Procedures, Defense Logistics Agency (DLA), Dated December 2015

3. REQUIREMENTS:

3.1 Recover ***Chlorofluorocarbons*** (CFC) refrigerants and halon materials listed in Attachment A that are not recycled back into the specific system's equipment from which they were removed as follows:

3.1.1 Fire suppression (halon) cylinders and canisters with electrical charges or initiators must be deactivated and safety caps must be used to cover exposed actuating mechanisms and discharge ports prior to shipping the intact cylinder.

3.1.2 Recover other halon and CFC materials for turn-in to the DoD ODS Reserve at the Defense Depot Richmond VA (DDRV). Empty cylinders shall be used to recover the materials. Empty recovery cylinders can be requisitioned through normal MILSTRIP stock ordering procedures from DDRV. The cylinders used to recover CFC shall be painted orange and cylinders used for halon shall be painted red. Both cylinders shall have yellow tops and shall also have dual port valves to ease the recovery process.

3.1.2.1 Do not mix new materials with used materials and do not mix different types of materials in the same cylinders.

3.1.3 Ensure the recovered materials cylinder is tagged. The tag should be placed beneath the cylinder protective cap or attached securely to the container. Do not stencil on cylinder. The tag shall contain the following information:

3.1.3.1 The shipper's DOD Activity Address Code (DODAAC). If the turned-in material originates from a ship or submarine, use the DODAAC of the ship/submarine on the tag.

3.1.3.2 The shipping activity with point of contact and telephone number.

3.1.3.3 The National Stock Number (NSN) that applies to the filled cylinder being returned.

3.1.3.4 The identity of the recovered material (Navy recovered R-XXX, CFC-XXX, or HALON-XXXX).

3.1.3.5 The amount, in pounds, of recovered materials in the cylinder. Do not fill more than 80 percent of its water weight capacity.

3.1.3.6 Apply a warning/hazardous label to the cylinder in compliance with 2.1.

3.1.3.7 The quantity of containers on the pallet or within the shipping crate. When multiple containers with the same NSN are shipped palletized or in a box/crate, apply only one tag/label to the shipment, not to each item.

3.2 Prior to shipping the reclaimed materials to DDRV, notify the SUPERVISOR so that a DD Form 1348-1 MILSTRIP can be prepared and transaction authorization procured.

3.3 Upon receipt of the completed DD Form 1348-1, and transaction authority from the SUPERVISOR, ship the reclaimed materials to:

Defense Depot Richmond Virginia (DDRV)
SWO400
Cylinder Operations
8000 Jefferson Davis Highway
Richmond, VA 23297-5000

4. NOTES:

4.1 If your activity is personally transporting ODS to the DoD ODS Reserve, be sure to schedule your delivery with the DDRV Dispatch Office at DSN 695-3834 or (804) 279-3834.

4.2 Current NSNs for cylinders are available from the SUPERVISOR.

4.3 Condition codes for cylinders are as follows:

4.3.1 Condition Code A: To be used for returning original cylinders whose seal was never broken or for recovery cylinders.

4.3.2 Condition Code B: To be used for returning full, original cylinders or for standard DOD refillable cylinders.

4.3.3 Condition Code F: To be used to return partially depleted cylinders whose purity cannot be guaranteed or for returning other (non-standard/commercial) cylinders.

4.4 Definition of Recover - To remove refrigerant in any condition from a system and store it in an external container without necessarily testing or processing it in any way.

ATTACHMENT A

ODS Requiring Turn-In to Defense Reserve in accordance with reference 2.2:

PRODUCT TYPE	PRODUCT TYPE WEIGHT	CYLINDER WATER WEIGHT
R-11	59	42
	170	122
	1,400	1,000
	100 (drum)	N/A
	200 (drum)	N/A
	650 (drum)	N/A
R-12	45	42
	145	122
	1,190	1,000
R-22	44	42
	128	122
	1,050	1,000
R-113	6 ounces	N/A
	1 pint	N/A
	1 quart	N/A
	1 gallon	N/A
	5 gallons (60 lbs)	N/A
	100 lbs (can)	N/A
	200 lbs (drum)	N/A
	55 gallons (drum)	N/A
Methyl Chloroform (1,1,1 Trichloroethane)	6 ounces	N/A
	1 pint	N/A
	1 quart	N/A
	1 gallon (12 lbs)	N/A
	5 gallon (60 lbs)	N/A
	55 gallon (640 lbs)	N/A

Note: Only unused CFC-113 or Methyl Chloroform (1,1,1 Trichloroethane) solvent contained in original drums or cans with unbroken seals shall be returned to DDRV. Used R-113 refrigerant can also be returned. Call (804) 279-5203 or DSN 695-5203 for specific turn-in guidance.

R-114	57	42
	165	122
	1,350	1,000
R-500	43	42
	127	122
	1,045	1,000
R-502	44	42
	125	122
	1,050	1,000

PRODUCT TYPE	PRODUCT TYPE WEIGHT	CYLINDER WATER WEIGHT
H-1202	160	122
H-1211	1-5	
	6-10	
	11-20	
	21-60	
	61-125	
	126-200	122
	200	122
	201-340	
	341-1,500	1,000
	1,500	1,000
H-1301	1-5	
	6-10	
	11-20	
	21-70	
	71-100	
	101-117	
	117	
	118-125	
	126-150	
	150	122
	151-200	
	201-260	
	261-350	
	351-530	
	531-600	
	601-1,240	
	1,240	1,000

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-87
DATE: ***01 OCT 2017***
CATEGORY: II

1. SCOPE:

1.1 Title: Chemical Disinfection Procedure; accomplish

2. REFERENCES:

2.1 NAVMED P-5010-6, Manual of Naval Preventive Medicine, Chapter 6, Water Supply Afloat

3. REQUIREMENTS:

3.1 Accomplish a chemical disinfection of each affected potable water system (e.g., tank, pump, piping and hoses) in accordance with 2.1.

3.2 Accomplish a halogen (chlorine) residual test for each affected potable water system. Acceptable free available chlorine (FAC) shall meet minimum levels specified in 2.1.

3.2.1 Submit one legible copy, in approved transferrable media, of the chlorine residual test to the SUPERVISOR not later than one day after the completion of the test, stating that minimum FAC level has been met in accordance with 2.1.

3.3 Secure and tag out each affected potable water system upon completion of the chlorine residual test.

3.4 Accomplish a bacteriological test for each affected potable water system.

3.4.1 Bacteriological testing must be accomplished at laboratories certified by state regulatory agencies in states having primacy, or by the Regional EPA Office in states not having primacy.

3.4.2 Submit one legible copy, in approved transferrable media, of completed report to the SUPERVISOR not later than one day after the completion of the test, with certification that the water is safe for human consumption.

3.5 Remove each tag upon completion of satisfactory bacteriological test and release each potable water system for Ship's Force use.

3.6 Accomplish ***chemical*** localized disinfection of ***each*** new and disturbed pipe fitting, pipe end, and valve in accordance with Article 6-22d(2) of 2.1 ***ensuring, at a minimum, each method is consistent with METHOD 2 of Table 6-2.***

3.7 Remove and dispose of chlorinated water and all rinse water in accordance with federal, state, and local laws, codes, ordinances, and regulations.

4. NOTES:

4.1 Do not take calcium hypochlorite in dry powder form aboard ship. Mixing is to be done ashore.

4.2 2.1 can be accessed at:

http://navymedicine.med.navy.mil (use link to Navy Medicine Directives, Publications and Manuals)

or

http://www-nehc.med.navy.mil/downloads/prevmed/NewP-5010-6.pdf

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-88
DATE: 18 NOV 2016
CATEGORY: II

1. SCOPE:

1.1 Title: Collection, Holding and Transfer (CHT) and Motor Gasoline (MOGAS) Tanks, Spaces, and Piping, including Sewage or MOGAS-Contaminated Tanks, Spaces, and Piping; certify

2. REFERENCES:

2.1 Standard Items

2.2 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

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

2.4 NFPA Standard 306, Standard for the Control of Gas Hazards on Vessels

2.5 S9086-T8-STM-010/CH-593, Pollution Control

2.6 Compressed Gas Association Commodity Specification for Air, Pamphlet G-7.1

2.7 29 CFR Part 1910.134, Occupational Safety and Health Standards, Respiratory Protection

3. REQUIREMENTS:

3.1 Certify ENTER WITH RESTRICTIONS, SAFE FOR WORKERS and/or SAFE FOR HOT WORK in accordance with 2.2 through 2.4, using 2.5 and 2.6 for guidance, Collection, Holding and Transfer (CHT) and MOGAS tanks, spaces, and associated piping, and inspect and certify adjacent tanks, spaces, or piping, where the scope of repairs will result in a need for certification during the accomplishment of this Job Order.

3.1.1 A National Fire Protection Association (NFPA) Certified Marine Chemist shall be present during the opening of CHT or MOGAS tanks, spaces, or associated piping. The Marine Chemist shall personally certify all CHT or MOGAS tanks, spaces, and associated piping for initial entry.

3.1.2 Submit one legible copy, in approved transferrable media, of a list of tanks or spaces to be certified to the SUPERVISOR at least one day prior to commencement of work.

3.1.3 Accomplishment of a Process Control Procedure (PCP) to support a step-by-step procedure of how the certification process will be accomplished shall be in accordance with NAVSEA Standard Items (See Note 4.4).

3.1.3.1 Procedures for CHT systems shall include, as a minimum, personnel requirements, notification of emergency response personnel, disinfecting of CHT tank and associated piping, removal of product, diagram and tag-out of affected piping, protective clothing, respiratory protection, ventilation requirements, and a list of spaces affected.

3.1.3.2 Procedures for MOGAS systems shall include, as a minimum, personnel requirements, notification of emergency response personnel, removal of product from the draw-off tank and MOGAS tank and associated piping, removal of inert gas (carbon dioxide) from the cofferdam around the MOGAS tank, tag-out of affected MOGAS and inert gas (CO2) piping, fire protection/fire prevention, protective clothing, respiratory protection, ventilation requirements, and control of other hazards such as benzene and lead.

3.2 Provide a written notice of opening of CHT and MOGAS tanks, spaces, and associated piping.

3.2.1 Deliver written notification to the SUPERVISOR and the Commanding Officer's designated representative at least 4 hours prior to the planned opening of CHT or MOGAS tanks, spaces, and associated piping.

3.2.2 Deliver written notification to the SUPERVISOR and the Commanding Officer's designated representative of opening of CHT or MOGAS tanks, spaces, and associated piping planned over a weekend or Monday following that weekend no later than 0900 on the Friday immediately preceding that weekend.

3.2.3 Deliver written notification to the SUPERVISOR and the Commanding Officer's designated representative of opening of CHT or MOGAS tanks, spaces, and associated piping planned on a federal holiday and on the day following the federal holiday no later than 0900 of the last working day preceding the federal holiday.

3.3 Accomplish the requirements of 2.2 for tanks, spaces, or piping that have the potential to become Immediately Dangerous to Life or Health (IDLH).

3.3.1 Spaces that are determined to contain IDLH atmospheres shall never be entered except for emergency rescue or for short duration for installation of ventilation equipment in accordance with 2.2 and 2.7, and the requirements of 3.3.1.1 and 3.3.1.2. When entering IDLH spaces for the

purpose of installing ventilation, notify the SUPERVISOR prior to entry. Notifications of rescue shall be made as soon as possible.

3.3.1.1 Provide a full facepiece, pressure demand, self-contained breathing apparatus (SCBA) certified by National Institute for Occupational Safety and Health (NIOSH) for a minimum service life of 30 minutes, or a combination, full facepiece, pressure demand supplied-air respirator (SAR) with an auxiliary self-contained air supply. The size/volume of the auxiliary self-contained air supply shall be based on the contractor's assessment of the unique characteristics/hazards of the space being entered to allow employees to safely escape.

3.3.1.2 In the case of MOGAS tanks and the associated cofferdams, the auxiliary self-contained air supply shall be a minimum of 15 minutes or more depending on the required assessment in 3.3.1.1.

3.3.2 NIOSH-approved atmosphere-supplying respirators shall be used by personnel entering CHT tanks, MOGAS tanks or spaces, or opening associated piping. Atmosphere-supplying respirators may be either a combination, full facepiece, pressure demand SAR, or a full facepiece, pressure demand SCBA. The source of breathing air for SARs shall be either a compressor capable of delivering an adequate quantity of breathing air at the pressure required by the respirators used and meeting the requirements of the specification for Grade D breathing air described in 2.6, or a bank of cylinders cascading to provide at least 4 to 6 hours of breathing air meeting the above specifications at the pressure needed by the respirators used. The source of breathing air for SCBAs shall meet the requirements of 2.6. Compressed and liquid oxygen shall meet the United States Pharmacopoeia requirements for medical or breathing oxygen. Compressed oxygen shall not be used in atmosphere-supplying respirators that have previously used compressed air. SCBA respirators shall have a minimum service life of 30 minutes.

3.3.3 All personnel required to use the respiratory equipment mentioned above shall receive training in accordance with 2.2 in the actual use of the respirator equipment including operation of all controls and breathing under pressure-demand conditions.

3.3.4 An adequate and attended lifeline shall be utilized for each employee who must enter the IDLH or potentially IDLH atmosphere.

3.4 An observer, whose only duty shall consist of oversight of the work area and spreading the alarm in the event of a casualty, shall be stationed at the access to the work site. The observer must be able to have visual contact or communication with persons in the space at all times.

3.4.1 The observer shall be provided with and trained to use the same personal protective equipment required for the personnel accomplishing the work. In addition, the observer shall be knowledgeable in the work process being accomplished.

3.4.2 The observer shall establish communication between the ship's designated 24-hour manned casualty control location, e.g., Quarterdeck, Damage Control Center (DCC), Casualty Control Station (CCS), and the observer's location to facilitate notification of the ship in the event of a casualty. This communication may be in the form of 2-way radios, temporary portable-wired alarm system, or other effective devices. The communication devices shall be tested every 30 minutes, as a minimum, to ensure the observer's ability to sound the alarm in the event of a casualty.

3.5 Ventilation suckers, suction ducting, tools, flashlights, and other equipment shall be non-sparking type.

4. NOTES:

4.1 Booklet of General Plans and Tank Sounding Tables are available for review at the office of the SUPERVISOR.

4.2 Refer to 009-07, or 009-70 of 2.1, as appropriate, for other requirements concerning confined space entry, certification, fire prevention, and housekeeping.

4.3 For the purpose of this Standard Item, the words "associated piping" means any piping or fixture physically connected to the CHT or MOGAS system.

4.4 A PCP to support a step-by-step procedure of how the certification process will be accomplished is required; the use of Category II Standard Item 009-09 “Process Control Procedure (PCP); provide and accomplish” of 2.1 shall be specified in the Work Item.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-94
DATE: 18 NOV 2016
CATEGORY: I

1. SCOPE:

1.1 Title: General Environmental Work at Contractor Facility; accomplish

2. REFERENCES:

2.1 40 CFR, Protection of Environment

2.2 49 CFR, Transportation

2.3 29 CFR 1910, Occupational Safety and Health Standards

3. REQUIREMENTS:

3.1 Observe the following requirements, in addition to the specific requirements of the Job Order, for work accomplished on Naval ships and craft within the contractor's facility.

3.2 Prepare a written Environmental Management Plan (EMP) that shall be implemented to ensure no adverse environmental impact occurs.

3.2.1 Submit one legible copy, in approved transferrable media, of the EMP when requested by the SUPERVISOR.

3.2.2 Submit revisions to the EMP when personnel, telephone numbers, or plan processes change. A cover letter indicating EMP previously submitted has been reviewed and is applicable or a revised plan shall be submitted.

3.3 The EMP shall address controls and operational actions that will be employed to ensure no adverse environmental impact and shall include the following:

3.3.1 Spill Prevention, Control, and Countermeasure (SPCC) Plan:

3.3.1.1 Provide name and telephone number for a 24-hour emergency coordinator with alternate.

3.3.1.2 Describe the method and work practices to be employed to prevent discharges of any volume to the river or waters adjacent to the contractor's facility.

3.3.1.3 Describe the contractor's spill clean-up capability (i.e., equipment such as oil skimmer, absorbent pads/booms, etc.).

3.3.1.4 Identify a standby subcontractor in case a discharge exceeds the prime contractor's clean-up capability. Provide name of proposed subcontractor, estimated response time, clean-up capabilities, and certify that the subcontractor will respond if called regardless of time/weather, etc.

3.3.1.5 Provisions for notification of the SUPERVISOR (after normal working hours) or Occupational Safety Health and Environmental Office (during normal working hours) immediately upon discovery of any improper discharge.

3.3.1.6 Provide documentation of successful accomplishment of spill training for all spill team members.

3.3.2 Pumping operations (liquid transfer to barge/tank or vice versa or in combination).

3.3.2.1 Describe the continuous communications between pump tender and barge/tank tender to allow immediate shutdown if a problem occurs during pumping/transfer operations.

3.3.2.2 Specific method for gauging compartment volume in barge/tank; maximum volume to be 90 percent of capacity in receiving barge/tank.

3.3.2.3 Describe provisions to tag pump lines to indicate where line is originating from (i.e., ship/craft tank/void pump number).

3.3.3 Waste Disposal:

3.3.3.1 Hazardous waste is defined by 2.1 and applicable state Hazardous Waste Management Regulations.

3.3.3.2 Indicate that the contractor is responsible for properly determining waste identification, including laboratory analysis if necessary under the requirements of 2.1, so that the proper Department of Transportation (DOT) shipping name can be determined for disposal of the hazardous waste in accordance with 2.2. Copies of all laboratory analyses shall be provided to the SUPERVISOR along with manifests.

3.3.3.3 Identify the proposed transporter and transporter EPA ID number who will deliver the hazardous waste to the disposal site. Certify in writing that the proposed transporter meets all Federal, state,

and local laws/requirements for the services to be provided. This information shall be submitted to the SUPERVISOR.

3.3.3.4 Describe the segregated storage area that will be utilized by the contractor for storage of hazardous waste.

3.3.3.5 Develop and use a checklist to ensure that transporter's vehicles comply with all applicable DOT requirements of 2.2.

3.3.3.6 Provide certification that the disposal site is legally authorized to accept the identified hazardous waste.

3.3.3.7 Provide documentation of hazardous waste training for all required personnel in accordance with 2.1 through 2.3.

3.3.4 Hazardous Material:

3.3.4.1 Provide documentation of training for personnel using hazardous materials as required by 2.3.

3.3.4.2 Indicate that no hazardous material shall be stored on the ship or craft, except while the material is in daily use or while located in storage areas assigned by the SUPERVISOR.

4. NOTES:

4.1 The SUPERVISOR will:

4.1.1 Retain the right to inspect all hazardous waste/material management activities performed by the contractor as a result of this Job Order.

4.1.2 Retain the right to take any/all wastes/materials from the contractor as deemed necessary to protect the Government's interests. In this event, appropriate credit may be taken by the Navy for any and all work not performed.

4.1.3 Retain the right to stop contractor work/operations in the event of serious safety and environmental problems/violations.

4.1.4 Provide oversight (as necessary) to all spill clean-up operations.

4.1.5 Review all manifests (Navy and co-generated waste) prior to shipment.

4.1.6 Review documentation of all contractor efforts to comply with Federal, state, and local environmental laws, codes, ordinances, and regulations. This review includes, but is not limited to, compliance with any minimization efforts chosen by the contractor.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-97
DATE: 17 JAN 2013
CATEGORY: I

1. SCOPE:

1.1 Title: Shipbuilding and Ship Repair Operations National Emission Standard for Hazardous Air Pollutants (NESHAPS) for Surface Coating Information; provide

2. REFERENCES:

2.1 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Source Categories, Subpart II

3. REQUIREMENTS:

3.1 Contractor facility availabilities:

3.1.1 Designate a contractor primary and secondary point of contact to receive reports applicable under this item.

3.1.2 Submit one legible copy, in approved transferrable media, of the names of the primary and secondary point of contact to the SUPERVISOR prior to availability start date.

3.2 Government facility availabilities:

3.2.1 Provide certification to the SUPERVISOR, using Attachment A for Volatile Organic Compounds (VOC) (for Option 1, 2, and 3 thinning requirement use only), or Attachment B for Volatile Organic Hazardous Air Pollutants (VOHAP) (for Option 4 thinning requirement), on the as-supplied coating by the manufacturer, or similar form as authorized by the SUPERVISOR.

3.2.1.1 For coatings to which thinners must not be added, the coating container must have a label stating "NO THINNING".

3.2.1.2 For coatings to which thinners are to be added, designate a single thinner to be used and determine the maximum allowable thinning ratio using Equation One of 2.1, apply a label to the coating container stating that "THINNER MAY BE ADDED" and also supply the maximum allowable thinning ratio.

3.2.2 No later than the 10th of each month, or at the end of each job, whichever is earlier, submit one legible copy, in approved transferrable media, of a report listing the following to the SUPERVISOR:

3.2.2.1 Volume and type of each coating used the previous month.

3.2.2.2 Volume and type of thinner used the previous month.

3.2.2.3 Calculations used to determine the maximum allowable thinning ratio for each coating that was thinned the previous month.

3.2.3 All handling, thinning, and transfer of coatings, solvents, and related waste shall be done in a manner that minimizes spills.

3.2.3.1 All containers of coatings, solvents, and related waste shall be free of cracks, holes, and defects such as damage, dents, or ill-fitting lids or covers that compromise the integrity of the container. The containers shall remain closed unless materials are being added or removed from the container.

3.2.3.2 All waste materials including rags, brushes, and rollers shall be kept in tightly closed containers that minimize evaporation.

4. NOTES:

4.1 None.

ATTACHMENT A
(For Option 1, 2, & 3 Thinning Requirement Use Only)
VOC DATA SHEET
PROPERTIES OF THE COATING "AS SUPPLIED" BY THE MANUFACTURER

Coating Manufacturer: _____
Coating Identification: _____
Batch Identification: _____
Supplied To: _____

Properties of the coating as supplied to the customer:

A. Coating Density: $(D_c)_2$ _____ g/L

____ ASTM D 1475-90 ____ Other[1]

B. Total Volatiles: $(m_v)_s$ _____ Mass Percent

____ ASTM D 2369-93 ____ Other[1]

C. Water Content:

1. $(m_v)_s$ _____ Mass Percent

____ ASTM D 3792-91 ____ ASTM D 4017-90 ____ Other[1]

2. $(v_w)_s$ _____ Volume Percent

____ Calculated ____ Other[1]

D. Organic Volatiles: $(m_o)_s$ _____ Mass Percent

E. Nonvolatiles: $(v_n)_s$ _____ Volume Percent

____ Calculated ____ Other[1]

F. VOC Content $(VOC)_s$:

1. _____ g/L solids (nonvolatiles)

2. _____ g/L coating (less water and exempt compounds)

G. Thinner Density: D_{th} _____ g/L

____ ASTM _____ ____ Other[1]

Remarks: (use reverse side)

H. Certification:

Signed: _____ Date: _____

[1] Explain the other method used under "Remarks"

ATTACHMENT B
(For Option 4 Thinning Requirement Use Only)
VOHAP DATA SHEET
PROPERTIES OF THE COATING "AS SUPPLIED" BY THE MANUFACTURER

Coating Manufacturer: _____
Coating Identification: _____
Batch Identification: _____
Supplied To: _____

Properties of the coating as supplied to the customer:

A. Coating Density: $(D_c)_2$ _____ g/L

____ ASTM D 1475-90 ____ Other[1]

B. Total Volatiles: $(m_v)_s$ _____ Mass Percent

____ ASTM D 2369-93 ____ Other[1]

C. Water Content:

1. $(m_v)_s$ _____ Mass Percent

____ ASTM D 3792-91 ____ ASTM D 4017-90 ____ Other[1]

2. $(v_w)_s$ _____ Volume Percent

____ Calculated ____ Other[1]

D. HAP Volatiles: $(m_{hap})_s$ _____ Mass Percent

E. Nonvolatiles: $(v_n)_s$ _____ Volume Percent

____ Calculated ____ Other[1]

F. VOHAP Content $(VOHAP)_s$:

1. _____ g/L solids (nonvolatiles)

2. _____ g/L coating (less water and exempt compounds)

G. Thinner VOHAP Density: $D_{th(vohap)}$ _____ g/L

____ ASTM _____ ____ Other[1]

Remarks: (use reverse side)

H. Certification:

Signed: _____ Date: _____

[1] Explain the other method used under "Remarks"

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-110
DATE: 18 NOV 2016
CATEGORY: I

1. SCOPE:

1.1 Title: Non-Nuclear Work on a Nuclear Vessel; accomplish

2. REFERENCES:

2.1 Joint Fleet Maintenance Manual (JFMM)

3. REQUIREMENTS:

3.1 Provide a written training plan for accomplishing non-nuclear work on nuclear vessels, using Volume IV, Chapter 10 of 2.1 for guidance.

3.1.1 Submit one legible copy, in approved transferrable media, of the training plan to the SUPERVISOR no later than 15 days prior to availability start date.

3.1.2 Submit revisions to the training plan to the SUPERVISOR for review and acceptance prior to use.

3.1.3 Implement the approved training plan prior to commencement of non-nuclear work on nuclear vessels.

3.2 Train all personnel (including subcontractors) assigned to perform work on a nuclear vessel in accordance with the approved training plan of 3.1 prior to start of work.

3.2.1 All personnel shall have direct knowledge of work control procedures, be able to recognize and initiate alarms, and be familiar with actions to be taken to evacuate the vessel.

3.2.2 Submit one legible copy, in approved transferrable media, of a list of qualified contractor and subcontractor personnel to the SUPERVISOR no later than 15 days prior to start of work. The list shall include company name, badge number, and date training was provided, along with certification documentation showing that training requirements have been met.

3.2.2.1 Submit updates to the list as changes occur throughout the availability.

3.3 Accomplish a joint on-site brief and walkthrough of the work site with the SUPERVISOR and the Commanding Officer's designated representative prior to start of work.

3.3.1 Include identification of all nuclear equipment including nuclear temporary/support systems and radiological containment materials located in the area of work, components and/or systems which may be affected by the work, and lessons learned from previously accomplished or similar work.

3.3.2 Evaluate services/temporary systems to be installed by the contractor that run through spaces containing nuclear equipment for possible leakage/spray protection.

3.3.3 The contractor shall identify all possible contact with nuclear equipment or nuclear temporary/support system identified in the space prior to start of work.

3.3.4 Evaluate the rigging path for potential collateral damage to nuclear components/piping. All inadvertent contact with nuclear equipment or nuclear temporary/support system in the work area during the work shall be brought immediately to the attention of the SUPERVISOR.

3.3.5 Submit one legible copy, in approved transferrable media, of a written report of the requirements of 3.3 to the SUPERVISOR within one day after completion of the briefing and walkthrough.

3.4 Maintain approved written instructions for accomplishing non-nuclear work on the work site at all times.

3.4.1 Do not accomplish work or disturb any system or component without specific approved written instructions for accomplishing work on nuclear vessels.

3.5 Material (permanent or temporary) shall not contact nuclear piping/components unless specifically authorized by the SUPERVISOR. Some examples are cleaning fluid sprays, dripping grease or liquids, inadvertent paint splatter, attaching rope or strings, wood, tape, plastic bags, temporary contractor’s services that contact hot or cold nuclear piping and components.

3.6 Report immediately inadvertent contact with or damage to nuclear equipment regardless of how minor (e.g., gouges, scratches, dents, slag, carbon arc, corrosion) to the SUPERVISOR.

3.7 Prohibit the following items from being brought onboard any nuclear-powered vessel or nuclear support vessel:

3.7.1 Any mercury bearing equipment such as mercury thermometers, portable fluorescent lights, black lights or any other items containing mercury.

3.7.2 Nickel-Cadmium fasteners.

3.7.3 Any device that contains a source of radioactivity.

3.7.4 Bright yellow tools, bags, or equipment.

4. NOTES:

4.1 None.

NAVSEA
STANDARD ITEM

FY-19

ITEM NO: 009-114
DATE: 07 NOV 2013
CATEGORY: II

1. SCOPE:

1.1 Title: Mold Remediation; accomplish

2. REFERENCES:

2.1 EPA 402-K-01-001, Mold Remediation in Schools and Commercial Buildings

2.2 29 CFR Part 1915, Occupational Safety and Health Standards for Shipyard Employment

3. REQUIREMENTS:

3.1 Conduct and document an initial determination of potential personnel exposure to materials contaminated with mold or mold spores prior to the start of work.

3.1.1 Provide a copy of the documentation, signed by a Competent Person as defined in 29 CFR 1915.4, to the SUPERVISOR upon request.

3.2 Ensure the remediation of material contaminated with mold or mold spores meets the guidance provided in 2.1.

3.3 Provide a notice and remediation plan to the SUPERVISOR and to the Commanding Officer's designated representative prior to start of work.

3.3.1 The remediation plan shall be on the job site and include at a minimum the following information:

3.3.1.1 Scope and location of the remediation area.

3.3.1.2 Method(s) to be used to remediate material contaminated with mold or mold spores.

3.3.1.3 List of Personal Protective Equipment (PPE) in accordance with 2.2 to be used during remediation process.

3.3.1.4 Engineering controls (i.e., ventilation and containment) to be used to eliminate exposure to personnel and other spaces/compartments.

3.3.2 Post a notice at the ship's Quarterdeck and at all entrances to the work areas for each job or separate area of potential exposure to mold or mold spore remediation operations at least 4 hours, but not more than 24 hours, prior to the start of work.

3.3.3 The notice shall contain the following information:

3.3.3.1 Ship's name and hull number

3.3.3.2 Work Item number

3.3.3.3 Compartment or frame number

3.3.3.4 Identification of hazard

3.3.3.5 Date and time of work process

3.3.3.6 Identification of engineering and work practice controls

3.3.4 Deliver notification of work planned over a weekend or Monday following that weekend to the Commanding Officer's designated representative not later than 0900 on the Friday immediately preceding that weekend.

3.3.5 Deliver notification of work planned on a Federal holiday and on the day following the Federal holiday to the Commanding Officer's designated representative not later than 0900 on the last working day preceding the Federal holiday.

3.3.6 The notice and remediation plan shall be submitted to the SUPERVISOR for review prior to commencement of the work operation. Authorization of the SUPERVISOR shall be obtained before proceeding with the work.

3.4 Provide for isolation and blanking of ship's ventilation systems in work areas to prevent mold or mold spore contamination of ventilation systems or other compartments/spaces.

3.5 Post warning signs and establish regulated areas for monitoring and authorized personnel entry.

3.6 Visually monitor the affected areas during work operations to ensure compliance with 2.1 and 2.2. Monitoring shall include adjacent spaces to ensure the work area containments and work practices are effective. Results of surveillance shall be documented and documentation shall be made available to the SUPERVISOR.

(V)(G) "FINAL INSPECTION"

3.7 Conduct a final visual inspection jointly with the SUPERVISOR and Commanding Officer's designated representative to verify that all visible mold and mold-damaged materials have been removed.

4. NOTES:

4.1 Reference 2.1 is available at http://www.epa.gov/mold/mold_remediation.html