NAVSEA
STANDARD ITEM

FY-23 CH-1

ITEM NO: 009-88
DATE: ***22 OCT 2021***
CATEGORY: I

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 must be present and personally certify the initial opening or entry of CHT or MOGAS tanks and spaces and the initial opening of associated piping.

3.1.2 Comply with subpart B of reference 2.2 for the reentry of CHT or MOGAS tanks and spaces and reopening of associated piping. Accomplish the requirements of 3.1.1 if the system was restored and opening or entry into the system is required.

3.1.3 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.

3.1.4 ***Accomplish the requirements of 009-09 of 2.1 to support a step by step procedure of how the certification process will be accomplished.***

3.1.4.1 Procedures for CHT systems must 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.

3.1.4.2 Procedures for MOGAS systems must 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 must 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 must 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 must 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 must 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 must 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 must 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 must meet the requirements of 2.6. Compressed and liquid oxygen must meet the United States Pharmacopoeia requirements for medical or breathing oxygen. Compressed oxygen must not be used in atmosphere-supplying respirators that have previously used compressed air. SCBA respirators must have a minimum service life of 30 minutes.

3.3.3 All personnel required to use the respiratory equipment mentioned above must 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 must be utilized for each employee who must enter the IDLH or potentially IDLH atmosphere.

3.4 An observer, whose only duty must consist of oversight of the work area and spreading the alarm in the event of a casualty, must 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 must be provided with and trained to use the same personal protective equipment required for the personnel accomplishing the work. In addition, the observer must be knowledgeable in the work process being accomplished.

3.4.2 The observer must 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 must 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 must 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.