MARINE SAFETY AND SECURITY INFORMATION BULLETIN (MSSB) 15-14

Confined Space Entry Policy Clarification for Coast Guard Personnel on Vessels Under Construction

References:  
(a) Occupational Safety and Health Standards for Shipyard Employment, 29 CFR 1915  
(b) Safety and Environmental Health Manual, COMDTINST M5100.47  
(c) Marine Safety Manual, VOL. I, CH 10, COMDTINST M16000.6

This bulletin announces Sector Mobile Marine Inspectors will not enter a “confined space” unless a Certified Marine Chemist initially certifies the space “Safe for Workers” and the Shipyard’s Competent Person maintains the certification. This policy includes vessel’s under construction or in-service.

Coast Guard Marine Inspectors use the enclosed Job Aid from reference (c) to evaluate a shipyard’s health and safety program’s impact on Coast Guard employee health and safety. Likewise, shipyards within Sector Mobile’s Area of Responsibility may use this Job Aid as a means to evaluate its compliance with applicable safety regulations.

For the purposes of this bulletin, and in accordance with references (a) thru (c), a “confined space” encompasses those spaces defined in 29 CFR 1915 as a “confined space”, “enclosed space”, or “other dangerous atmosphere”. When discussing a “confined space”, the regulations and associated Coast Guard policy do not delineate between a vessel under construction or one that is currently in service. Functionally, this includes any area on a vessel or section that has the following characteristics:

1. A compartment of small size and limited access such as a double bottom tank, cofferdam, or other space which by its small size and confined nature can readily create or aggravate a hazardous exposure;

2. Any space other than a confined space, which is enclosed by bulkheads and overhead. It includes cargo holds, tanks, quarters, and machinery and boiler spaces; or

3. An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury, or acute illness.

For further information, please contact Lieutenant Commander Michael Venturella, Chief of Inspections Division, at the contact information listed above.

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Encl: Job Aid #100: Evaluation of Shipyard Health and Safety Program

Please visit us on the internet at http://homeport.uscg.mil/mobile
Job Aid # 100
Evaluation of Shipyard Health and Safety Program with respect to the impact on CG Employee Health and Safety

The purpose of this check sheet is to assist CID's, detachment and detail supervisors, SM/USC's and SEHO's in reviewing shipyard safety hazards and controls with shipyard personnel. The goal is to exchange hazard information to ensure that CG members safely conduct their inspections while on the yard's facilities. Enforcement of OSHA regulations is not the primary goal. However, if in the course of ensuring CG member safety, uncorrected hazards affecting shipyard employee health and safety are noted, the shipyard should be informed of the hazards.

General

☐ Shipyard actively participates in exchange of hazard information and safety rules and procedures with Coast Guard members. [29 CFR 1915(f) and Basic Elements of a Maritime Occupational Safety and Health Program Standard, published as a Guide in the last OSHA Shipyard Digest.]

☐ Housekeeping is adequate. [29 CFR 1915.91]

☐ Illumination of accesses, walkways and work areas is adequate. [29 CFR 1915.92]

☐ Utilities:
  ☐ Steam systems have relief valves, fittings have a safety factor of not less than five, hose and temporary piping are shielded where passing through normal work areas to prevent accidental contact with people in the space. [29 CFR 1915.93(a)]
  ☐ When vessel is supplied electrical power from a source other than the vessel itself, the vessel is adequately grounded, yard ensures through vessel owner or representative that vessel’s circuits to be energized are in a safe condition, circuits used are protected with overcurrent protection. [29 CFR 1915.93(b)]
  ☐ Infrared heat lamps are adequately guarded. [29 CFR 1915.93(c)]

☐ Work on or near radar and radio is properly controlled. [29 CFR 1915.95]

☐ Work in lifeboats is properly controlled. [29 CFR 1915.96]

☐ Health and Sanitation: Health hazards that CG employees may encounter include those covered by 29 CFR Subparts B (Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment), C (Surface Preparation & Preservation), D (Welding, Cutting and Heating) and Z (Toxic and Hazardous Substances). These specific sections are discussed in more detail later in this check sheet.

☐ Eating & smoking are not allowed in areas where atmospheric contaminants are produced. [29 CFR 1915.97(c)]

☐ Employees working beneath or on outboard side of a vessel are not subject to contamination by drainage or waste from overboard discharges. [29 CFR 1915.97(d)]
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Slips, Trips & Falls
☐ Trends or lessons learned specific to yard of which CG members should be aware?

Abrasive Blasting
☐ Materials used? (CG members shall avoid all areas where abrasive blasting is being conducted.)

Surface Preparation and Preservation
☐ CG members shall not enter a confined space where painting or paint removal is being conducted.
☐ CG members shall avoid open-air blasting operations.
☐ CG members shall avoid open-air spray painting operations.
☐ CG members shall avoid, to the extent possible, open air brush painting or preservative coating operations.
☐ For hazard communication purposes, what are the hazards of the paint removers and paint systems used by the yard? [29 CFR 1915 subpart C]

Welding, cutting and burning
☐ Yard is able to schedule Coast Guard inspections during periods when welding is not being conducted?
☐ If an exception must be made and SWP# III is implemented, review 29 CFR 1915 subpart D and ensure that CG employees have information and personal protective equipment needed to comply.

Preventing falls from heights greater than six feet:
☐ Techniques used by yard to prevent falls from heights higher than 6 feet:
  ☐ Scaffolding in accordance with 29 CFR 1915 subpart E. Note that 29 CFR 1915.71(j) requires rails for scaffolding, staging, runways, or working platforms which are supported or suspended more than 5 feet above a solid surface or at any distance above water. If the rails are omitted, employees are to be protected by fall arrest systems IAW 29 CFR 1915.159.
  ☐ Rafting.
  ☐ Inspection through use of high quality binoculars, camera or video equipment.
☐ Any training needed by CG members to ensure they are protected from heights greater than 6 feet?

Ladders
☐ Use of ladders with broken or missing rungs or steps, broken or split siderails, or other faulty or defective construction is prohibited. [29 CFR 1915.72]
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☐ Access to cargo spaces and confined spaces is adequate (ladders in good repair, or temporary ladder provided, at least two means of access not blocked by ventilation ducts, unless vessel design makes this impractical, then other appropriate precautions are taken). [29 CFR 1915.76]

Working Surfaces
☐ Working/walking surfaces are adequate (firebox floors covered with temporary planking to afford safe footing for work in boilers, scaffolding provided for working aloft, work platforms in restricted areas are adequate, persons boarding, leaving or working from small boats or floats are protected by PFDs. [29 CFR 1915.77]

Gear and Equipment for Rigging and Materials Handling
☐ Can CG members avoid all operations involving lifting and materials handling?
☐ If no, then review safety procedures contained in 29 CFR 1915 subpart G.

Personal Protective Equipment
☐ Based on hazards in the yard and CG policies (e.g., avoiding welding, painting and abrasive blasting), what PPE do CG personnel need to work safely in the yard? [29 CFR Subparts C and I]

Ship’s machinery and piping systems
☐ Fire, steam and water spaces of a boiler or piping systems where people may be subject to injury from the direct escape of a high temperature medium such as steam meet the requirements of 29 CFR 1915.162 before work or inspections are started in the space or section of pipe.
☐ Ship’s propulsion machinery meets the requirements of 29 CFR 1915.164 before work begins to prevent the unexpected release of energy.

Ship’s deck machinery
☐ Safety steps required in 29 CFR 1915.165 are in place before work is performed on the anchor windlass or any of its attached accessories.

Portable air receivers and other unfired pressure vessels
☐ Does the yard use portable, unfired pressure vessels?
☐ Portable, unfired pressure vessels meet the requirements of 29 CFR 1915.172.

Drums and containers
☐ Where are drums and containers of hazardous materials stored?
☐ Drums and containers are stored according to 29 CFR 1915.73 and pressurized piping systems conveying hazardous liquids or gases are provided with relief valves and by-passes to prevent rupture of the system & escape of the hazardous liquids or gases.
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Electrical circuits and distribution boards
☐ Electrical circuits and distribution boards are de-energized IAW 29 CFR 1915.181.
☐ When work is conducted behind an energized board, the board is covered or some
er other equally safe means is used to prevent contact with any of the energized parts.

Toxic and Hazardous Substances
☐ What toxic and hazardous substances are used by the yard?
☐ Request copies of Material Safety Data Sheets (MSDS's) for those substances around
which CG employees may be working (should be used in Hazard Communication
training.)

Confined Space Entry Program
☐ Shipyard Competent Person Program
  ☐ Competent persons are designated in writing by shipyard management.
    [29 CFR 1915.7(b)(1)]
  ☐ Competent person related training and experience is documented. [ISO 9001]
  ☐ Evidence that the competent person receives oversight from a Certified Marine
Chemist or Certified Industrial Hygienist exists. [Recommended practices]
    ☐ What is the interaction between the Marine Chemist and competent person?
      ☐ Competent person accompanies Marine Chemist during testing.
      ☐ Face to face exchange of information with Marine Chemist.
  ☐ Instrument calibration procedures are documented [ISO 9001]
  ☐ Instrument calibration is verified before each day’s use by using a known
collection of test gas in a manner consistent with manufacturer’s
recommendations [NFPA 306, 2-2.1]
  ☐ Records of instrument calibrations are maintained [NFPA 306, 2-2.1]
  ☐ Confined space testing and inspection procedures are documented [ISO 9001]
  ☐ Confined space testing and inspection results are recorded and include at a
minimum: location of vessel, time, date, location of inspected spaces, operations
performed, test results, and any instructions. (e.g., Competent Persons Log)
    [29 CFR 1915.7(d)(1)]
  ☐ Confined space entry records are kept on file for a period of at least three months
from the completion date of the specific job for which they were generated. [29 CFR
1915.7(d)(3)]
  ☐ Confined space access control
    ☐ Marine Chemist Certificates and Competent Persons Logs are posted in the
immediate vicinity of the affected operations. [29 CFR 1915.7(d)(2)]
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☐ The Competent Persons Log & other signs or labels are easy to understand.
[29 CFR 1915.16(a)]

☐ Confined space rescue team
  ☐ The shipyard has established a shipyard rescue team [29 CFR 1915.12(e)], or
  ☐ The shipyard has arranged for an outside rescue team to respond within
    5 minutes. [29 CFR 1915.12(e)] NOTE: Regulations state “promptly.”
  ☐ The rescue team has held a practice drill or conducted an actual rescue within the
    last 12 months. [29 CFR 1915(e)(1)(iii)]
  ☐ At least one person on the rescue team is trained in basic first aid and CPR.
    [29 CFR 1915(e)(1)(iv)]

☐ Practical verification of competent person skills
  ☐ Competent person can describe hazards associated with confined space entry in
    general, and specific spaces in particular.
  ☐ Competent person can state the required oxygen and lower explosive limit (LEL)
    readings required for entry.
  ☐ Confined space testing and inspection procedures are to test for the same toxics
    the chemist tested, unless stated otherwise on the Marine Chemist certificate.
  ☐ Competent person demonstrates satisfactory testing procedures.
  ☐ Competent person records test results on competent person’s log.
  ☐ Competent person makes appropriate judgement regarding maintenance of
    conditions and need to contact or recall the Certified Marine Chemist.