

# UNINSPECTED VESSEL OSHA SELF-INSPECTION CHECK LISTS

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As most OSHA regulations are not written with vessels in mind, drafting a checklist, using it, and complying with OSHA will present unique challenges to the maritime industry. You will also need to refer to OSHA standards for complete and specific standards that may or may not apply to your work situation. These checklists are based on most common OSHA citations for maritime transportation generally and mainly on the OSHA Handbook for Small Businesses. If specific USCG standards are applicable, or specific OSHA standards are incompatible with a vessel's design, a variance or interpretation from OSHA should be sought.

## **RECORDKEEPING (NOT JUDICIALLY RESOLVED)**

Are all occupational injury or illnesses, except minor injuries requiring only first aid, being recorded as required on the OSHA 300 log and, as applicable to USCG, on Form CG-2692 (Report of Marine Accident, Injury or Death)?

Are crewmember medical records and records of crewmember exposure to hazardous substances or harmful physical agents up-to-date and in compliance with current OSHA standards?

Are crewmember training records kept and accessible for review by crewmembers, when required by OSHA standards?

Have arrangements been made to maintain required records for the legal period of time for each specific type record? (Some records must be maintained for at least forty years.)

Are operating permits and records up-to-date for such items as air pressure tanks and liquefied petroleum gas tanks?

**SAFETY AND HEALTH PROGRAM**

Do you have any active safety and health program in operation that deals with general safety and health program elements as well as the management of hazards specific to your vessel worksite?

Is one person clearly responsible for the overall activities of the safety and health program?

Do you have a safety committee or group made up of management and labor representatives that meets regularly and reports in writing on its activities?

Do you have a working procedure for handling in-house crewmember complaints regarding safety and health?

Are you keeping your crewmembers advised of the successful effort and accomplishments you have made in assuring they will have a vessel workplace that is safe and healthful?

Have you considered incentives for crewmembers who have excelled in reducing vessel workplace injury/illnesses?

**MEDICAL SERVICES AND FIRST AID**

If medical and first-aid facilities are not in proximity of your vessel workplace at all times, is at least one crewmember on each shift currently qualified to render first aid?

Have all crewmembers who are expected to respond to medical emergencies as part of their work:

(1) Received first-aid training; (2) had hepatitis B vaccination made available to them; (3) had appropriate training on procedures to protect them from bloodborne pathogens; and (4) have available and understand how to use appropriate personal protective equipment to protect against exposure to bloodborne diseases?

Where crewmembers have had an exposure incident involving bloodborne pathogens, did you provide an immediate post-exposure medical evaluation and follow-up?

Are medical personnel readily available for advice and consultation on matters of crewmembers' health?

Are first-aid kits easily accessible to each vessel work area, with necessary supplies available, periodically inspected and

replenished as needed?

Are means provided for quick drenching or flushing of the eyes and body in areas where corrosive liquids or materials are handled?

### **PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING**

Are you assessing the vessel workplace to determine if hazards that require the use of PPE (e.g., life preservers, head, eye, face, hand, or foot protection) are present or are likely to be present?

If hazards or the likelihood of hazards are found, are you selecting, and having affected crewmembers use, properly fitted PPE suitable for protection from these hazards?

Have the employer and crew been trained on PPE procedures, i.e., what PPE is necessary for a job tasks, when they need it, and how to properly adjust it?

Are protective goggles or face shields provided and worn where there is any danger of flying particles or corrosive materials?

Are approved safety glasses required to be worn at all times in areas where there is a risk of eye injuries such as punctures, abrasions, contusions or burns?

Are crewmembers who need corrective lenses (glasses or contacts) in vessel working environments having harmful exposures, required to wear only approved safety glasses, protective goggles, or use other medically approved precautionary procedures?

Are protective gloves, shields, or other means provided and required where crewmembers could be cut or where there is reasonably anticipated exposure to corrosive liquids, chemicals, blood or other potentially infectious materials? (See 29 C.F.R. 1910.1030(b) for the definition of "other potentially infectious materials".)

Is appropriate foot protection required where there is the risk of foot injuries from hot, corrosive, poisonous substances, falling objects, crushing or penetrating actions?

Are approved respirators provided for regular or emergency

use where needed?

Is all protective equipment provided for regular or emergency use where needed?

Do you have eye wash facilities and a quick drench shower within the vessel work area where crewmembers are exposed to injurious corrosive materials?

Where food or beverages are consumed on the vessel, are they consumed in areas where there is no exposure to toxic material, blood, or other potentially infectious materials?

Is protection against the effects of occupational noise exposure provided when sound levels exceed those of the OSHA noise standard?

Are adequate work procedures, protective clothing, and equipment provided and used when cleaning up spilled toxic or otherwise hazardous materials or liquids?

Are there appropriate procedures in place for disposing of or decontaminating personal protective equipment contaminated with, or reasonably anticipated to be contaminated with, blood or other potentially infectious materials?

## **GENERAL WORK ENVIRONMENT**

Are all vessel worksites clean, sanitary and orderly?

Are all spilled hazardous materials or liquids, including blood and other potentially infectious materials, cleaned up immediately and according to proper procedures?

Is combustible scrap, debris and waste stored safely and removed from the vessel worksite promptly?

Is all regulated waste, as defined in the OSHA bloodborne pathogens standard (29 C.F.R. 1910.1030), discarded according to federal, state and local regulations?

Are covered metal waste cans used for oily and paint-soaked waste?

Are all oil and gas-fired devices equipped with flame failure controls that will prevent flow of fuel if pilots or main burners are not working?

Are dip tanks, etc., cleaned regularly?

Are the minimum number of heads (toilets and washing

facilities) provided?

Are all heads clean and sanitary?

Are all vessels work areas and compartments adequately illuminated?

Are deck openings covered or otherwise guarded?

Have all confined spaces been evaluated for compliance with 29 C.F.R. 1910.146?

### **VESSEL WALKWAYS**

Are wet surfaces covered with non-slip materials?

Are holes in the deck walking surface repaired properly, covered or otherwise made safe?

Is there safe clearance for walking in passageways and compartments where engines, motorized or mechanical handling equipment is operating?

Are materials or equipment stored in such a way that sharp projectives will not interfere with the walkway?

Are spilled materials cleaned up immediately?

Are changes of direction or elevations readily identifiable?

Is adequate headroom provided for the entire length of any passageway?

Are standard guardrails provided wherever passageway surfaces are elevated more than thirty inches above any adjacent deck?

Are bridges provided over conveyors and similar hazards?

### **DECK AND BULKHEAD OPENINGS**

Are deck openings guarded by a cover, a guardrail, or equivalent on all sides (except at entrance to stairways or ladders)?

Are toeboards installed around the edges of permanent deck opening (where persons may pass below the opening)?

Is the glass in the windows, portholes, hatches, bulkheads, etc., which are subject to human impact, of sufficient thickness and type for the condition of use?

Are unused portions of holds not actually in use either covered or protected by guardrails or equivalent?

Are deck or bulkhead openings in fire resistive construction provided with hatches or covers compatible with the fire rating of the structure and provided with a self-closing feature when appropriate?

### **EXITING OR EGRESS**

Are all exits marked with an exit sign and illuminated by a reliable light source?

Are the directions to exits, when not immediately apparent, marked with visible signs?

Are hatches, passageways, ladders or stairways, that are neither exits nor access to exits, and which could be mistaken for exits, appropriately marked "NOT AN EXIT", "STOREROOM", etc.?

Are exit signs provided with the word "EXIT" in lettering at least five inches high and the stroke of the lettering at least ½ inch wide?

Are exit hatches side-hinged?

Are all exits kept free of obstructions?

Are at least two means of egress provided from elevated platforms, holds or compartments where the absence of a second exit would increase the risk of injury from hot poisonous, corrosive, suffocating, flammable, or explosive substances?

Are there sufficient exits to permit prompt escape in case of emergency?

Are special precautions taken to protect crewmembers during maintenance and repair operations?

Is the number of exits from each deck of a vessel and the number of exits from the vessel itself, appropriate for the occupancy load?

Are exit ladders or stairways that are required to be separated from other parts of a vessel enclosed by at least two-hour fire-resistive construction in buildings more than four decks in height, and not less than one-hour fire resistive constructive elsewhere?

Where ramps are used as part of required exiting from a vessel, is the ramp slope limited to one foot vertical and twelve feet horizontal?

Where exiting will be through glass exit hatches, or storm hatches, are the hatches fully tempered and meet the safety requirements for human impact?

#### **EXIT HATCHES/PORTS**

Are hatches that are required to serve as exits designed and constructed so that the way of the exit travel is obvious and direct?

Are windows and portholes that could be mistaken for exit hatches, made inaccessible by means of barriers or railings?

Are exit hatches openable from the direction of exit travel without the use of a key or any special knowledge or effort when the vessel is occupied?

Where panic hardware is installed on a required exit hatch, will it allow the hatch to open by applying a force of fifteen pounds or less in the direction of the exit traffic?

Are hatches on cold storage compartments provided with an inside release mechanism which will release the latch and open the hatch even if it's padlocked or otherwise locked on the outside?

Are hatches that swing in both directions and are located between compartments where there is frequent traffic, provided with viewing panels in each hatch?

#### **PORTABLE LADDERS**

Are all ladders maintained in good condition, joints between steps and side rails tight, all hardware and fittings securely attached and moveable parts operating freely without binding or undue play?

Are non-slip safety feet provided on each ladder?

Are non-slip safety feet provided on each metal or rung ladder?

Are ladder rungs and steps free of grease and oil?

Is it prohibited to place a ladder in front of hatches opening toward the ladder except when the hatch is blocked open, locked or guarded?

Is it prohibited to place ladders on boxes, barrels, or other unstable bases to obtain additional height?

Are crewmembers instructed to face the ladder when ascending or descending?

Are crewmembers prohibited from using ladders that are broken, missing steps, rungs or cleats, broken side rails or other faulty equipment?

Are crewmembers instructed not to use the top step of ordinary stepladders as a step?

When portable rung ladders are used to gain access to elevated platforms, etc., does the ladder always extend to at least three feet above the elevated surface?

Is it required that when portable rung or cleat type ladders are used, the base is so placed that slipping will not occur, or it is lashed or otherwise held in place?

Are portable metal ladders legibly marked with signs reading "CAUTION – Do not use around electrical equipment" or equivalent wording?

Are crewmembers prohibited from using ladders as guys, braces, skids, gin poles, or for other than their intended purposes?

Are crewmembers instructed to only adjust extension ladders while standing at a base (not while standing on the ladder or from a position above the ladder)?

Are metal ladders inspected for damage?

## **MACHINE GUARDING**

Is there a training program to instruct crewmembers on safe methods of machine operation?

Is there adequate supervision to ensure that crewmembers are following safe machine operation procedures?

Is there a regular program of safety inspection of machinery and equipment?

Is all machinery and equipment kept clean and properly maintained?

Is sufficient clearance provided around and between machines to allow for safe operations, set up and servicing, material handling and waste removal?

Is equipment and machinery securely placed and anchored, when necessary to prevent tipping or other movement that could result in personal injury?

Is there a power shut-off switch within reach of the operator's position at each machine?

Can electric power to each machine be locked out for maintenance, repair or security?

Are the non-current-carrying metal parts of electrically operated machines bonded and grounded?

Are foot-operated switches guarded or arranged to prevent accidental actuation by personnel or falling objects?

Are manually operated valves and switches controlling the operation of equipment and machines clearly identified and readily accessible?

Are all emergency stop buttons colored red?

Are all pulleys and belts that are within seven feet of the floor or working level properly guarded?

Are all moving chains and gears properly guarded?

Are splash guards mounted on machines that use coolant to prevent the coolant from reaching crewmembers?

Are methods provided to protect the operator and other crewmembers in the machine area from hazards created at the point of operation, ingoing nip points, rotating parts, flying chips, and sparks?

Are machinery guards secure and so arranged that they do not offer a hazard in their use?

If special handtools are used for placing and removing material, do they protect the operator's hands?

Are revolving drums, barrels, and containers required to be guarded by an enclosure that is interlocked with the drive mechanism, so that revolution cannot occur unless the guard enclosures are in place, so guarded?

Do arbors and mandrels have firm and secure bearings and are they free from play?

Are provisions made to prevent machines from automatically starting when power is restored after a power failure or shutdown?

Are machines constructed so as to be free from excessive vibration when the largest size tool is mounted and run at full speed?

If machinery is cleaned with compressed air, is air pressure controlled and personal protective equipment or other safeguards utilized to protect operators and other crew members from eye and body injury?

Are fan blades protected with a guard having openings no larger than ½ inch when operating within seven feet of the deck?

### ENTERING CONFINED SPACES

Are confined spaces thoroughly emptied of any corrosive or hazardous substances, such as acids or caustics, before entry?

Are all lines to a confined space, containing inert, toxic, flammable or corrosive materials valved off and blanked or disconnected and separated before entry?

Are all engines, impellers, agitators, or other moving parts and equipment inside confined spaces locked-out if they present a hazard?

Is either natural or mechanical ventilation provided prior to confined space entry?

Are appropriate atmospheric tests performed to check for oxygen deficiency, toxic substances and explosive concentrations in the confined space before entry?

Is adequate illumination provided for the work to be performed in the confined space?

Is the atmosphere inside the confined space frequently tested or continuously monitored during conduct of work?

Is there an assigned safety standby crewmember outside of the confined space, when required, whose sole responsibility is to watch the work in progress, sound an alarm if necessary, and render assistance?

Is the standby crewmember appropriately trained and equipped to handle an emergency?

Is the standby crewmember or other crewmembers prohibited from entering the confined space without lifelines and respiratory equipment if there is any question as to the cause of the

emergency?

Is approved respiratory equipment required if the atmosphere inside the confined space cannot be made acceptable?

Is all portable electric equipment used inside confined spaces either grounded or insulated, or equipped with ground fault protection?

Before gas welding or burning is started in a confined space, are hoses checked for leaks, compressed gas bottles forbidden inside of the confined space, torches lighted only outside of the confined area and the confined area tested for an explosive atmosphere each time before a lighted torch is to be taken into the confined space?

If crewmembers will be using oxygen-consuming equipment – such as torches and furnaces, in a confined space – is sufficient air provided to assure combustion without reducing the oxygen concentration of the atmosphere below 19.5 percent by volume?

Whenever combustion-type equipment is used in a confined space, are provisions made to ensure the exhaust gases are vented outside of the enclosure?

Is each confined space checked for decaying fish matter which may produce methane?

Is the confined space checked for possible industrial waste which could contain toxic properties?

#### **ENVIRONMENTAL CONTROLS**

Are all vessel work areas properly illuminated?

Are crewmembers instructed in proper first-aid and other emergency procedures?

Are hazardous substances, blood and other potentially infectious materials identified, which may cause harm by inhalation, ingestion, or skin absorption or contact?

Are crewmembers aware of the hazards involved with the various chemicals they may be exposed to in their work environment, such as ammonia, chlorine, epoxies, caustics, etc.?

Is crewmember exposure to chemicals in the workplace kept within acceptable levels?

Can a less harmful method or process be used?

Is the vessel work area's ventilation system appropriate for the work being performed?

Has there been a determination that noise levels in the facilities are within acceptable levels?

Are steps being taken to use engineering controls to reduce excessive noise levels?

Are proper precautions being taken when handling asbestos and other fibrous materials?

Are caution labels and signs used to warn of hazardous substances (e.g., asbestos) and biohazards (e.g., bloodborne pathogens)?

Are wet methods used, when practicable, to prevent the emission of airborne asbestos fibers, silica dust and similar hazardous materials?

Are engineering controls examined and maintained or replaced on a scheduled basis?

Is vacuuming with appropriate equipment used whenever possible rather than blowing or sweeping dust?

Are grinders, saws and other machines that produce respirable dusts vented to an industrial collector or central exhaust system?

Are all local exhaust ventilation systems designed and operating properly such as air flow and volume necessary for the application, ducts not plugged or belts slipping?

Is personal protective equipment provided, used and maintained wherever required?

Are there written standard operating procedures for the selection and use of respirators where needed?

Are heads kept clean and sanitary?

Is all water provided for drinking, washing and cooking potable?

Are all outlets for water not suited for drinking clearly identified?

Are crewmembers' physical capacities assessed before being assigned to jobs requiring heavy work?

Are crewmembers instructed in the proper manner of lifting

heavy objects?

Where heat is a problem, have all fixed work areas been provided with spot cooling or air conditioning?

Are crewmembers screened before assignment to areas of high heat to determine if their health condition might make them more susceptible to having an adverse reaction?

Are exhaust stacks and air intakes so located that contaminated air will not be recirculated within a building or other enclosed area?

Are universal precautions observed where occupational exposure to blood or other potentially infectious materials can occur and in all instances where differentiation of types of body fluids or potentially infectious materials is difficult or impossible?

#### **HAZARDOUS SUBSTANCES COMMUNICATION**

Is there a list of hazardous substances used in your vessel?

Is there a current written exposure control plan for occupational exposure to bloodborne pathogens and other potentially infectious materials, where applicable?

Is there a written hazard communication program dealing with Material Safety Data Sheets (MSDS), labeling, and crewmember training?

Is each container for a hazardous substance (i.e., vats, bottles, storage tanks, etc.), labeled with product identity and a hazard warning (communication of the specific health hazards and physical hazards)?

Is there an MSDS readily available for each hazardous substance used?

Is there a crewmember training program for hazardous substances?

Does this program include:

An explanation of what an MSDS is and how to use and obtain one?

MSDS contents for each hazardous substance or class of substances?

Explanation of "Right to Know"?

Identification of where a crewmember can see the employer's written hazard communication program and where hazardous substances are present in their vessel work areas?

The physical and health hazards of substances in the vessel work area, and specific protective measures to be used?

Details of the hazard communication program, including how to use the labeling system and MSDSs?

Does the crewmember training program on the bloodborne pathogens standard contain the basic elements?

Are crewmembers trained in the following:

How to recognize tasks that might result in occupational exposure?

How to use work practice and engineering controls and personal protective equipment and to know their limitations?

How to obtain information on the types, selection, proper use, location, removal, handling, decontamination and disposal of personal protective equipment?

Who to contact and what to do in an emergency?

## **ELECTRICAL**

Do you specify compliance with OSHA for all contract electrical work?

Are all crewmembers required to report as soon as practicable any obvious hazard to life or property observed in connection with electrical equipment or lines?

Are crewmembers instructed to make preliminary inspections and/or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines?

When electrical equipment or lines are to be serviced, maintained or adjusted, are necessary switches opened, locked-out and tagged whenever possible?

Are portable electrical tools and equipment grounded or of the double-insulated type?

Are electrical appliances such as vacuum cleaners, polishers, and vending machines grounded?

Do extension cords being used have a grounding conductor?

Are multiple plug adaptors prohibited?

Are all temporary circuits protected by suitable disconnecting switches or plug connectors at the junction with permanent wiring?

Do you have electrical installations in hazardous dust or vapor areas? If so, do they meet the National Electrical Code (NEC) for hazardous locations?

Is exposed wiring and cords with frayed or deteriorated insulation repaired or replaced promptly?

Are flexible cords and cables free of splices or taps?

Are clamps or other securing means provided on flexible cords or cables at plugs, receptacles, tools, equipment, etc., and is the cord jacket securely held in place?

Are all cord, cable and raceway connections intact and secure?

In wet or damp locations, are electrical tools and equipment appropriate for the use or location or otherwise protected?

Is the location of electrical power lines and cables (overhead, underfloor, other side of bulkheads) determined before waterway drilling or similar work is begun?

Are metal measuring tapes, ropes, handlines or similar devices with metallic thread woven into the fabric prohibited where they could come in contact with energized parts of equipment or circuit conductors?

Is the use of metal ladders prohibited in areas where the ladder or the person using the ladder could come in contact with energized parts of equipment, fixtures or circuit conductors?

Are all disconnecting switches and circuit breakers labeled to indicate their use or equipment served?

Are disconnecting means always opened before fuses are replaced?

Do all interior wiring systems include provisions for grounding metal parts of electrical raceways, equipment and enclosures?

Are all electrical raceways and enclosures securely fastened in place?

Are all energized parts of electrical circuits and equipment guarded against accidental contact by approved cabinets or enclosures?

Is sufficient access and working space provided and maintained about all electrical equipment to permit ready and safe operations and maintenance?

Are all unused openings (including conduit knock-outs) in electrical enclosures and fittings closed with appropriate covers, plugs or plates?

Are electrical enclosures such as switches, receptacles, and junction boxes provided with tight-fitting covers or plates?

Are disconnecting switches for electrical motors in excess of two horsepower, capable of opening the circuit when the motor is in a stalled condition, without exploding? (Switches must be horsepower rated equal to or in excess of the motor hp rating.)

Is low voltage protection provided in the control device of motors driving machines or equipment which could cause probable injury from inadvertent starting?

Is each motor disconnecting switch or circuit breaker located within sight of the motor control device?

Is each motor located within sight of its controller or the controller disconnecting means capable of being locked in the open position or is a separate disconnecting means installed in the circuit within sight of the motor?

Is the controller for each motor in excess of two horsepower, rated in horsepower equal to or in excess of the rating of the motor it serves?

Are crewmembers who regularly work on or around energized electrical equipment or lines instructed in the cardiopulmonary resuscitation methods?

Are crewmembers prohibited from working alone on energized lines or equipment over 600 volts?

## **NOISE**

Are there areas in the vessel workplace where continuous noise levels exceed 85dBA?

Is there an ongoing preventive health program to educate

crewmembers in: safe levels of noise, exposures; effects of noise on their health; and the use of personal protection?

Have vessel work areas where noise levels make voice communication between crewmembers difficult been identified and posted?

Are noise levels being measured using a sound level meter or an octave band analyzer and are records being kept?

Have engineering controls been used to reduce excessive noise levels? Where engineering controls are determined not feasible, are administrative controls (i.e., crew rotation) being used to minimize individual crewmember exposure to noise?

Is approved hearing protective equipment (noise attenuating devices) available to every crewmember working in noisy areas?

Have you tried isolating noisy machinery from the rest of your operation?

If you use ear protectors, are crewmembers properly fitted and instructed in their use?

Are crewmembers in high noise areas given periodic audiometric testing to ensure that you have an effective hearing protection system?

## **FUELING**

Is it prohibited to fuel an internal combustion engine with a flammable liquid while the engine is running?

Are fueling operations done in such a manner that likelihood of spillage will be minimal?

When spillage occurs during fueling operations, is the spilled fuel washed away completely (but not in a waterway), evaporated, or other measures taken to control vapors before restarting the engine?

Are fuel tank caps replaced and secured before starting the engine?

In fueling operations, is there always metal contact between the container and the fuel tank?

Are fueling hoses of a type designed to handle the specified type of fuel?

Is it prohibited to handle or transfer motor fuels in open

containers?

Are open lights, open flames, sparking, or arcing equipment prohibited near fueling or transfer of fuel operations?

Is smoking prohibited in the vicinity of fueling operations?

Are fueling operators prohibited in enclosed areas that are not specifically ventilated for this purpose?

Where fueling or transfer of fuel is done through a gravity flow system, are the nozzles of the self-closing type?