

2.22.23

MARINE SAFETY OPERATIONS

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We will follow Industry Regulations, Subpart E - Personal Protective & Life Saving Equipment, 1926 Subpart O - Motor Vehicles, Mechanized Equipment, & Marine Operations, and United States Coast Guard (USCG) Regulations, in addition to the following requirements.

ROLES & RESPONSIBILITIES

Project Supervision

- Oversee program implementation to ensure that hazards associated with working over or near water are identified and subject to this procedure.
- Ensure that all documentation is complete in accordance with this procedure.
- Administer and oversee day-to-day marine activities to ensure compliance with this procedure.

PROCEDURES

Working Over or Near Water - General Requirements

- Employee-owners working over or near water, where the danger of drowning exists, shall be provided with a USCG-approved life jacket or buoyant work vests.
 - + For work being performed on shore, a USCG-approved life jacket or buoyant work vests will be worn within 10 feet of water unless otherwise directed.
 - + Employee-owners walking or working on the unguarded decks of barges shall be protected with USCG-approved work vests or buoyant vests.
- Prior to and after each use, the buoyant work vests or life preservers shall be inspected for defects that would alter their strength or buoyancy. Defective units shall not be used.
- Ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet.
- At least one lifesaving skiff shall be immediately available at locations where employee-owners are working over or adjacent to water. A motorized vessel to transport employee-owners from the work zone to land may be required in consideration of the following:
 - + Size of the body of water
 - + The distance from shore to the work zone
 - + Number of employee-owners involved in the work task
 - + Proximity of the jobsite to available emergency response services
- Local Notice to Mariners (available from the USCG) and a two-way radio will be available when working in navigable waters.

Marine Operation Planning

- Marine projects will create a site-specific marine safety plan that will encompass the following items, at a minimum:
 - + Water rescue/retrieval
 - » Will be developed and shared with all employee-owners involved.
 - » Conditioned space, blankets, change of clothes, etc. will be available to combat hypothermia for any employee-owner who falls in the water.
 - » Sufficient number of employee-owners and equipment will be available to effectively facilitate a rescue/retrieval operation.
 - + Environmental spill prevention requirements
 - » Spill containment dams/berms constructed of absorbent socks will be maintained around all equipment that may have the potential of fluid release on all barges.
 - 55-gallon drum spill/containment kits will be immediately available on all barges.
 - » Project supervision must report all spills to the project manager and Safety Manager, or their designee.
 - » Project supervision must report all spills to the specific state environmental department immediately. Any spill that reaches the water (or is likely to reach the water) must also be reported to the National Response Center (1800-424-8802) as soon as possible.
 - + Mooring & Logistics
 - » Analysis of spuds vs. anchors, dolphins, temporary bulkheads, tug requirements, etc.
 - + Barge Illumination Requirements
 - » Lights need to be placed on barges when on the edge of a channel and on a mooring.
 - » A constant burn white light will be placed at each outboard corner day and night with visibility of at least one mile.
 - » White LED 6-volt magnetic base anchor lights with a photocell that shuts them off during the day are recommended.

MARINE OPERATIONS & EQUIPMENT

Material Handling Operations

Operations fitting the definition of “material handling” shall be performed in conformance with applicable requirements of Part 1918, “Safety and Health Regulations for Longshoring.” The term “longshoring operations” means the loading, unloading, moving, or handling of construction materials, equipment, supplies, etc. into, in, on, or out of any vessel from a fixed structure or shore-to-vessel, vessel to shore, or fixed structure or vessel-to-vessel

Access to Barges

- Ramps for access of vehicles to or between barges shall be of adequate strength, provided with sideboards, well maintained, and properly secured.
- Unless employee-owners can step safely to or from the wharf, float, barge, or river towboat, a ramp or a safe walkway shall be provided.
- Jacob’s ladders shall be of the double rung or flat tread type. They shall be well maintained and properly secured.
- Jacob’s ladder shall either hang without slack from its lashings or be pulled up entirely.
- When the upper end of the means of access rests on or is flush with the top of the bulwark, substantial steps properly secured and equipped with at least one substantial handrail approximately 33 inches in height shall be provided between the top of the bulwark and the deck.
- Obstructions shall not be laid on or across the gangway.
- The means of access shall be adequately illuminated for its full length.
- Unless the structure makes it impossible, the means of access shall be so located that the load will not pass over employee-owners.

Working Surfaces of Barges

- Employee-owners shall not be permitted to walk along the sides of covered lighters or barges with coamings more than 5 feet high unless there is a 3-foot clear walkway, a grab rail, or a taut headline provided.

- Decks and other working surfaces shall be maintained in a safe condition.

- Employee-owners shall not be permitted to pass fore and aft, over, or around deck loads unless there is a safe passage.

- Employee-owners shall not be permitted to walk over deck loads from rail to coaming unless there is a safe passage. If it is necessary to stand at the outboard or inboard edge of the deck load where less than 24 inches of bulwark, rail, coaming, or other protection exists, all employee-owners shall be provided with a suitable means of protection against falling from the deck load.

EQUIPMENT USE ON BARGES

Cranes

- Crane capacity charts will be posted in the work area and reviewed.
- Crane to barge mobilization plans will be developed and approved by the project manager, superintendent, regional safety director, and operator.
- Crane mats will fully cover the crane base.
- For land cranes/derricks used on barges, pontoons, vessels, or other means of flotation, project supervision must ensure:
 - + Physical attachment, corraling, rails system, and centerline cable system meets the requirements in Option (1), Option (2), Option (3), or Option (4) of this section.
 - » Option (1) Physical attachment – The crane/derrick is physically attached to the barge, pontoons, vessel, or other means of flotation. Methods of physical attachment include crossed-cable systems attached to the crane/derrick and vessel/flotation device, bolting or welding the crane/derrick to the vessel/flotation device, strapping the crane/derrick to the vessel/flotation device with chains, or other methods of physical attachment.
 - » Option (2) Corraling – The crane/derrick is prevented from shifting by installing barricade restraints (i.e., a corraling system). Project supervision must ensure that corraling systems do not allow the equipment to shift by any amount of shifting in any direction.
 - » Option (3) Rails – The crane/derrick must be prevented from shifting by being mounted on a rail system.
 - Project supervision must ensure that rail clamps and rail stops are used unless the system is designed to prevent movement during operation by other means
 - » Option (4) Centerline Cable System – The crane/derrick is prevented from shifting by being mounted to a wire rope system. Project supervision must ensure that the wire rope system meets the following requirements:
 - The wire rope and attachments are of sufficient size and strength to support the side load of the crane/derrick.
 - The wire rope is attached physically to the vessel/flotation device.
 - The wire rope is attached to the crane/derrick by appropriate attachment methods (such as shackles or sheaves) on the undercarriage, and the method used will allow the crew to secure the crane/derrick from movement during operation and to move the crane/derrick longitudinally along the vessel / flotation device for repositioning.
 - + Means are installed to prevent the crane/derrick from passing the forward or aft end of the wire rope attachments.
 - » The crane/derrick is secured from movement during operation.
 - » The systems/means used to comply with Option (1), Option (2), Option (3), or Option (4) of this section are designed by a marine engineer or registered professional engineer familiar with floating crane/derrick design.
 - » The means used to secure/attach the equipment to the vessel/flotation device will be inspected, at a minimum monthly for proper condition, wear, corrosion, and when applicable, insufficient tension.

Aerial work platforms

- Aerial work platforms will not be operated without review of the operation and approval from the regional safety director.
- A marine engineering report will be developed by a third party for any aerial work platform mounted on a barge.
- Except while over water, employee-owners occupying the platform must wear appropriate fall protection equipment. While working over water, workers shall wear a personal flotation device.
- Aerial work platforms must be secured to the barge via appropriately sized chains or slings.
- Drive functions must be disabled to prevent operation, except for the sole purpose of loading/unloading from the barge.
- Barricades must be present to prevent the lift from being driven off the sides of the barge.
- Aerial work platforms must be centered both across the port and starboard directions of the vessel.
- Refer to manufacturer-specific requirements for aerial work platforms on barge operations.

First aid and lifesaving equipment

- Provisions for rendering first aid and medical assistance shall be in accordance with §29 CFR 1926, Construction Industry Regulations, Subpart D - Occupational Health & Environmental Controls.
- The Company shall ensure that there is in the vicinity of each barge in use at least one USCG-approved 30-inch life ring with not less than 90 feet of line attached and at least one portable or permanent ladder that will reach the top of the apron to the surface of the water. If the above equipment is not available at the pier, project supervision shall furnish it during the time that he is working the barge.

Commercial diving operations

Commercial diving operations shall be subject to §29 CFR 1926, Construction Industry Regulations, Subpart Y – Diving

Equipment Inspections

- Barges and boats will receive a daily documented operational inspection utilizing the Daily Boat & Barge Inspection Checklist. In addition to this, a documented monthly inspection will be completed utilizing the Marine Equipment Inspection Checklist.

- Boat Operator Qualifications/Evaluations

- + Operators of small boats will be qualified prior to operating a boat without the supervision of another qualified operator by fulfilling the following:

- » The qualification will be conducted by another qualified operator

- » The qualification process will be conducted utilizing the Boat Operator Training & Qualification Form

- » A boat over 26’ requires a licensed operator, per USCG requirements

TRAINING

General Training Requirements

- Employee-owners working over or near water will be trained in water rescue and retrieval plans and general deckhand tasks along with the requirements outlined in this section.

- Employee-owners operating boats and/or barges will be trained in inspection criteria, equipment operations, and maintenance requirements.