

Appendix M.1 Container Vessel Bunkering Heightened Awareness Program

A. Mission Statement: Bunkering operations taking place alongside container ships while alongside load berths require a heightened level of awareness due to inherent risks associated with container vessel loading activities. This program is to minimize the risk to personnel on the bunker barges, to reduce the risk to the environment and to establish an ongoing program of awareness around container vessel bunkering safety. It will outline best practices, planning of bunker operations, essential communications, and due diligence to assure the safety of personnel on bunker barges.

B. Best Management Practices

1. Area of Concern: This area is identified as the Ship's offshore three stacks of containers above deck in hatch bays directly adjacent to the full length of the bunker barge the entire time the barge is alongside.
2. Any cargo operations during bunkering will give priority to the safety of the bunker barge's personnel.
3. Barge Operators will not bring barges alongside the ship if containers are being worked until communications have been verified between the designated terminal operations management, the container ship, and the barge.
4. Best efforts should be made to avoid container cargo operations in the Area of Concern while bunker barge is alongside. In the event that critical container movements must take place in the Area of Concern, the Terminal Operations Management shall make contact with the Tankerman PIC via VHF Radio or Vessel Officer on Watch and inform them of such movement. This will allow barge personnel to shut down operations and move to a safe area on the barge. Once the critical containers have been moved, Terminal Operations Management will contact the Tankermen PIC to let them know it's safe to resume bunker operations.
5. If the Tankermen notice that cargo operations are taking place in the Area of Concern, they will first contact the ship's PIC to request these conflicting activities are suspended or will utilize their STOP WORK AUTHORITY to shut down the transfer and move to an area of safety.
6. Should there be any reason for a delay in the barge's departure from the vessel, vessel will to the best of their ability avoid the Area of Concern when conducting cargo operations.
7. Lashing and unlashng activities in the Area of Concern will not be conducted during bunker operations. This is to reduce the risk of lashing hardware falling onto the bunker barge.

C. Planning bunker operations

1. The Bunker Operator and Vessel's Agent will plan for an agreeable time-period (appointment) for when the bunker barge will be alongside. Terminal Operations shall be informed of the appointment time by the ship's agent.
2. If possible, the bunker operation should be pre-scheduled to take place during the late night/early morning intermediate or "hoot" shift 0300-0800. If this is not possible the Agent will coordinate with Terminal Operations Management to determine the best time

for the bunkering operation to take place. An appointment will be made according to this targeted period.

3. To emphasize the safety of personnel and environmental protection, the bunker operator reserves the right to depart vessel and return at a later time should critical container moves cause a delay to the barges bunker schedule.

D. Essential communications

1. All stakeholders in the bunkering operation, which includes the Vessel Agent, Bunker Operator, Ship's Crew, Terminal Operations Management and Cargo Crane Operators (through the Vessel Foreman) must be aware that a bunkering operation is taking place and must be available for communications before and during the bunkering operation as needed.
2. Prior to the commencement of bunkering operations, communication shall take place between the barge's Tankerman PIC and the ship's PIC. The engineer will notify the ship's cargo officer and the Agent who in turn will make any notification to terminal operations management. The vessel and agent are responsible for notifications to the terminal.
3. Critical personnel contact information and phone numbers will be provided and listed in pre-delivery communications noted in paragraph 3.H.
4. Bunker Barge Operators, Container Terminal Operations Management and Ship's Agents will exchange and maintain a reliable and current list of their respective 24/7 telephone contact information, this will include e-mail addresses.
5. When applicable, barge operators will communicate/confirm barge arrival times with agents and receiving vessels at intervals leading up to the delivery.
 - a) 72 Hrs. Through ships agent email
 - b) 48 Hrs. Through ships agent email
 - c) 24 Hrs. Directly with Terminal Operations Management email and ships agent email

NOTE: All communications taking place less than 24 hrs. from the scheduled barge delivery time will be directly between the barge operating company and the vessel's agent via telephone call and/or email. Notifications of these changes will be made to the Terminal Operations Management by the agent.

6. Upon notification from the agent, terminal Operations Management will assure that bunker operations are communicated to all associated operations staff and that this information is passed on when there are shift or personnel changes.
7. The receiving vessel or agent will communicate any delays to the estimated finish time of bunker discharge directly to the Terminal Operations Management to ensure there are no conflicts with cargo ops scheduled in the Area of Concern.
8. The Bunker Delivery Notice/Marine Best Practice Checklist shall be initiated by the bunker delivery company then sent to the agent who will fill out applicable sections and contact information. This form will then be sent by the agent to the Vessel, Terminal Operations Management and Barge Operator so all have the same information pertaining to the transfer and its timing. Bunker delivery companies may utilize their own form or use the template included in Appendix M.2.
9. The Bunker Notice/Best Marine Practice Checklist shall be filled out and returned to the Barge Operator no later than 24 hours prior to the bunkering delivery appointment.

E. Continued Due Diligence

1. A Container Vessel Bunkering Safety Work Group has been established under the Harbor Safety Committee. This working group will hold meetings as needed to discuss issues, near misses, and incidents related to container vessel bunkering safety as well as the effectiveness of this program.
2. If container operations begin in the area of concern while the bunker barge is alongside without notification, it will be considered a “Near Miss” and recorded as such by the barge operator-
3. All parties will record and collect information regarding Near Misses via their own programs. These will be discussed by the Container Vessel Bunkering Safety Group of the Harbor Safety Committee. This may include sharing of lesson learned and corrective actions utilized. Emergency or high-profile events may necessitate sharing this info before the main meeting of the HSC.
4. The state of California has additional reference materials that pertain to bunkering operations available on the Marine Exchange website <https://mxsocial.org/bunker/>
 - a) Safe Bunkering Practices video
 - b) Bunker Barge Safety Program slides
 - c) Bunkering – Best Maritime Practices for the State of CA document.