

Standard Operating Procedure

Subject: Bulk Liquid Loading and Unloading

Purpose:

This Standard Operating Procedure (SOP) identifies certain measures to be followed during all loading and unloading of bulk liquids at Iowa State University to help prevent the release of materials. This SOP has been prepared in accordance with guidelines established in 40 CFR Part 112 and 49 CFR Part 177.

Frequency: As Needed

Notes:

When a bulk liquid tanker arrives to be loaded or unloaded, the procedures listed below should be followed.

NOTE:
Should a release occur before, during or after the transfer operations, immediately implement the release response procedures outlined in the SPCC Plan

1. The tanker driver shall notify the responsible Iowa State University personnel upon arrival.
2. Designated personnel will attend the entire transfer operation along with the tanker driver.
 - a. Designated personnel and tanker driver must be aware of the nature of the material being loaded or unloaded and the procedures to follow in the event of an emergency.
 - b. Personnel must have the authority and means to move the tanker truck if needed as well as activate the release response contractors and obtain release response materials.
 - c. Personnel shall remain awake, maintain an unobstructed view of the tanker and receiving vessel and be positioned within 25 feet of the tanker or receiving vessel during the entire transfer operation.
3. Designated personnel and/or the tanker driver shall perform the following tasks prior to any transfer operations:
 - a. Ensure that the hand brake on the tanker is firmly set and/or the tires are securely chocked to prevent motion of the tanker once it is properly positioned for transfer operations.

- b. If receiving a delivery, confirm that the content of the tanker is the type ordered and will be unloaded into the correct vessel.
 - c. If receiving a delivery, confirm that the vessel to be filled has adequate volume available to contain the volume of the delivered load.
 - (1) Measure the liquid level in the receiving vessel and calculate the available volume.
 - (2) Immediately contact supervisor if the volume of the delivered load exceeds the volume available in the receiving vessel.
 - (3) Determine where in the receiving vessel the fluid level will be located after the transfer operations are complete.
4. Place traffic control cones at perimeter of the tanker and the transfer operations area.
 5. Ensure that release response equipment and supplies are readily available and easily accessible.
 6. Cover, plug or isolate any floor drain or storm drain intake that could be impacted in the event of a large release.
 7. Ensure that no smoking will occur and no open flames will be present in the vicinity of the transfer area during the transfer operations.
 8. Unlock and open fill pipe on receiving vessel. Remove cap from correct port on tanker. No tools are to be used that may damage the effectiveness of closure of the port or vessel.
 9. The contents of any vessel other than the integral tank of a tanker must not be discharged prior to removing the vessel from the tanker.
 10. Securely connect the bulk liquid transfer hoses to receiving vessel and the tanker. Double check all connections and add additional safety mechanisms if necessary.
 11. Instruct the tanker driver to open the appropriate valves and transfer the load. Supervise the entire operation.

Designated personnel and/or the tanker driver shall perform the following tasks after the load has been transferred:

12. Disconnect, properly drain and stow all transfer hoses.
13. Close and lock fill pipe on receiving vessel. Replace cap on tanker port.
14. Confirm that the fluid level in the filled or emptied vessel is located where expected. If there is a discrepancy, recheck fluid level and contact supervisor.
15. All tanks, drums or other vessels not permanently attached to the tanker must be secured against movement within the vehicle. Vessels equipped with valves or other fittings must be loaded so that the likelihood of damage to these fittings is minimized.
16. After the tanker has left the premises and all transfer equipment and vessel caps have been secured, remove cover, plug or isolation materials from floor drains and storm drain intakes.

Prepared by: _____ Date: _____

Approved by: _____ Date: _____