

**§ 153.964 Discharge by gas pressurization.**

The person in charge of cargo transfer may not authorize cargo discharge by gas pressurization unless:

(a) The tank to be offloaded has an SR or PV venting system;

(b) The pressurization medium is either the cargo vapor or a nonflammable, nontoxic gas inert to the cargo; and

(c) The pressurizing line has:

(1) A pressure reducing valve whose setting does not exceed 90% of the tank's relief valve setting and a manual control valve between the pressure reducing valve and the tank; or

(2) For an inert gas medium:

(i) A safety relief valve with a cross sectional flow area at least equal to that of the pressurizing line and whose relieving pressure does not exceed 90 percent of the tank's relief valve setting;

(ii) A manual control valve between the safety relief valve and the tank; and

(iii) A check valve between the manual control valve and the tank.

**§ 153.966 Discharge by liquid displacement.**

The person in charge of cargo transfer may not authorize cargo discharge by liquid displacement unless the liquid supply line to the tank has:

(a) A safety relief or pressure reducing valve set to operate at no more than 80 percent of the tank's relief valve setting; and

(b) A manual control valve between the tank and the supply line's safety relief valve or pressure reducing valve.

**§ 153.968 Cargo transfer conference.**

(a) Before he may begin making connections for cargo transfer, the person in charge of cargo transfer shall confer with the person supervising the cargo transfer at the facility.

(b) The person in charge of cargo transfer shall discuss the important aspects of the transfer operation, such as the following, with the supervisor at the facility:

(1) The products to be transferred.

(2) The cargo loading rates marked on the cargo piping plan or the maximum safe transfer rates.

(3) The critical or hazardous stages of the transfer operation.

(4) The emergency procedures in case of a spill.

(5) If the vessel is equipped with the tank overflow alarm prescribed in §153.408(c), a procedure for shutdown of shore pumps, shore valves, and ship's valves that prevents piping system pressures from exceeding those for which the piping system is designed.

[CGD 73-96, 42 FR 49027, Sept. 26, 1977, as amended by CGD 78-128, 47 FR 21211, May 17, 1982; CGD 81-078, 50 FR 21174, May 22, 1985]

**§ 153.970 Cargo transfer piping.**

The person in charge of cargo transfer shall ensure that:

(a) Cargo is transferred to or from a cargo tank only through the tankship's cargo piping system;

(b) Vapor not returned to shore through the tankship's vapor return system is discharged at the height required for the cargo's vent riser in Table 1, and

(c) All cargo vapor is returned to shore through the valved connection on the venting system if:

(1) The cargo requires closed gauging, is referenced to §153.372 or is referenced to §153.525;

(2) The transfer terminal has vapor return equipment; and

(3) In his estimation the vapor return equipment is adequate to handle the vapor expected from the tank.

**§ 153.972 Connecting a cargo hose.**

The person in charge of cargo transfer may not authorize the connection of a hose to a cargo containment system unless:

(a) He has ensured himself that the cargo will not weaken or damage the hose;

(b) The hose is marked as meeting the standards of §153.940;

(c) The date of the hose's last pressure test is within one year of the date on which the hose is used to transfer cargo;

(d) The recommended working pressure marked on a hose used for discharge meets or exceeds the working pressure marked on the cargo piping at the hose connection; and

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(e) The cargo's temperature is within the manufacturer's recommended maximum and minimum hose temperatures.

**§ 153.975 Preparation for cargo transfer.**

The person in charge of cargo transfer may not approve or continue cargo transfer unless the following conditions are met:

(a) No fires or open flames are on deck or in compartments near the hose connections when Table 1 requires the cargo's containment system to have a fire protection system.

(b) Any electrical bonding of the tankship to the transfer facility is made before the cargo transfer piping is joined.

(c) Any supplemental inert gas supply necessary to maintain the 3.5 kPa gauge (approx. 0.5 psig) pressure in the tank during offloading (see §153.500) is connected to the inert gas pressure control system.

(d) The transfer connections have enough slack to allow for vessel movement.

(e) The transfer connections are supported by tackles.

(f) The cargo high level alarms, tank overflow alarms and overflow control systems are functioning correctly when the cargo is loaded.

(g) Joints and couplings are gasketed and mated tightly.

(h) Flanges are bolted tightly.

(i) No repair work is underway in areas where cargo or cargo vapors may collect.

(j) Cargo and sea valves are properly set, with those sea valves connected to cargo piping lashed or sealed shut.

(k) Venting system bypass valves are set for cargo transfer and are operating properly.

(l) All scuppers are plugged.

(m) Smoking is limited to safe places.

(n) Fire fighting and safety equipment is ready.

(o) He is in effective communication with the transfer terminal.

(p) The person in charge of the transfer terminal has acknowledged that he is ready to transfer.

(q) Pressures within the cargo transfer and containment systems do not ex-

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ceed the pressure ranges for which the transfer hose and containment systems are designed.

(r) No vessels that would hazard cargo transfer are alongside the tankship.

[CGD 73-96, 42 FR 49027, Sept. 26, 1977, as amended by CGD 78-128, 47 FR 21211, May 17, 1982]

**§ 153.976 Transfer of packaged cargo or ship's stores.**

The person in charge of cargo transfer may neither begin nor continue the transfer of a flammable or combustible cargo while packaged cargo or ship's stores are transferred unless transfer of the packaged cargo or ship's stores does not hazard transfer of the flammable or combustible cargo.

**§ 153.977 Supervision of cargo transfer.**

The person in charge of cargo transfer shall:

(a) Supervise the operation of cargo system valves;

(b) Monitor the cargo loading rate to ensure it does not exceed that stated on the cargo piping plan; and

(c) Monitor the cargo level in the tanks to make sure they do not overflow.

[CGD 78-128, 47 FR 21211, May 17, 1982]

**§ 153.979 Gauging with a sounding tube.**

(a) No person may remove the cover of a sounding tube unless he has authorization from the person in charge of cargo transfer.

(b) The person in charge of cargo transfer may not authorize removal of the cover from a sounding tube gauge unless all tank pressure has been relieved through the tank's venting system.

**§ 153.980 Isolation of automatic closing valves.**

The person in charge of cargo transfer may isolate automatic closing valves described in §153.408(b) from a cargo containment system if the following conditions are met:

(a) The containment system carries products to which §153.408 does not apply.

(b) The valves are isolated by: