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§153.1010 Alkylene oxides.

(a) Before each loading of a cargo containment system with a cargo referenced to this section in Table 1, the person in charge of cargo transfer shall:

(1) Unless the tankship is equipped with independent cargo piping that meets paragraph (d) of this section:

(i) Obtain verification from a Coast Guard Marine Inspector or from a representative of the tankship's flag administration that separation of the alkylene oxide piping system complies with alkylene oxide handling plans approved by the Coast Guard or the tankship's flag administration; and

(ii) Make sure that each spectacle flange and blank flange connection that is required to separate alkylene oxide piping systems from other systems has a wire and seal attached by a Coast Guard Marine Inspector or a representative of the tankship's flag administration.

(2) Purge the containment system until the oxygen content of the cargo tank is less than 2% by volume.

(b) The person in charge of an alkylene oxide cargo transfer shall ensure that:

(1) No alkylene oxide vapor or liquid is released to the atmosphere during cargo transfer;

(2) No vapor return system connected to an alkylene oxide containment system is at the same time connected to another containment system;

(3) Alkylene oxide is discharged only by an intank cargo pump or inert gas displacement;

(4) Transfer hose is approved by the Commandant (G–MSO) under §153.530(o) for alkylene oxide transfer and is marked ''For Alkylene Oxide Transfer Only''; and

(5) A water hose is laid out on deck with water pressure to the nozzle, and all alkylene oxide spillages are washed away immediately.

(c) While alkylene oxides are onboard the vessel, the master shall make sure that the oxygen content of the vapor space above the alkylene oxide and those spaces specified in §153.530 (k) and (l) is maintained below 2% by volume.

(d) Tankships with independent piping for alkylene oxides must have onboard:

(1) Alkylene oxide handling plans approved by the Coast Guard or the tankship's flag administration; and

(2) Certification from the Coast Guard or the tankship's flag administration that the cargo piping for alkylene oxides is independent.

[CGD 73–96, 42 FR 49027, Sept. 26, 1977, as amended by CGD 78–128, 47 FR 21211, May 17, 1982; CGD 82–063b, 48 FR 4782, Feb. 3, 1983]

§153.1011 Changing containment systems and hoses to and from alkylene oxide service.

(a) The person in charge of cargo transfer shall make sure that:

(1) No alkylene oxide is loaded into a containment system that last carried a cargo other than an alkylene oxide unless the containment system has been cleaned and inspected to make sure it is in good condition with no heavy rust accumulations or traces of previous cargoes;

(2) No alkylene oxide is loaded into a containment system that within the previous three loadings carried a cargo listed in paragraph (b) of this section unless the containment system has been cleaned to the satisfaction of a Coast Guard Marine Inspector or a person specifically authorized by the Commandant (G–MSO) to approve alkylene oxide tank cleaning;

(3) No cargo but an alkylene oxide is loaded into a containment system which last carried an alkylene oxide unless the containment system has been cleaned of alkylene oxide to the satisfaction of a Coast Guard Marine Inspector or person specifically authorized by the Commandant (G–MSO) to approve alkylene oxide tank cleaning; and

(4) No hose marked ''For Alkylene Oxide Transfer Only'' is used for the transfer of a cargo other than an alkylene oxide.

(b) The following cargoes are particularly reactive with alkylene oxides:

(1) Non-oxidizing mineral acids (e.g. hydrochloric, phosphoric);

(2) Sulfuric acid;

(3) Nitric acid;

(4) Organic acids (e.g. acetic, formic);