

portable instrumentation may be utilized to ensure that personnel are not exposed to vinyl chloride vapor concentrations in excess of 1 ppm averaged over any eight hour period of 5 ppm averaged over any period not exceeding 15 minutes. The method of monitoring and measurement shall have an accuracy (with a confidence level of 95 percent) of not less than plus or minus 50 percent from 0.25 through 0.5 ppm, plus or minus 35 percent from over 0.5 ppm through 1.0 ppm, and plus or minus 25 percent over 1.0 ppm;

(3) Cargo transfer operation is discontinued or corrective action is initiated by the person in charge to minimize exposure to personnel whenever a vinyl chloride vapor concentration in excess of 1 ppm is detected. If the vinyl chloride vapor concentration exceeds 5 ppm for over 15 minutes, action to reduce the leak can be continued only if the respiratory protection requirements of 29 CFR 1910.1017 are met by all personnel in the area of the leak;

(4) Those portions of cargo lines which will be open to the atmosphere after piping is disconnected are free of vinyl chloride liquid and that the vinyl chloride vapor concentration in the area of the cargo piping disconnect points is not greater than 5 ppm;

(5) Any restricted gauge fitted on a tank containing vinyl chloride is effectively out of service by locking or sealing the device so that it cannot be used; and

(6) A restricted gauge is not to be used as a "check" on the required closed gauge, nor as a means of sampling.

(h) The words "CANCER—SUSPECT AGENT" must be added to the warning signs required by 46 CFR 151.45-2(e).

(i) Signs bearing the legend:

CANCER—SUSPECT AGENT IN THIS AREA

PROTECTIVE EQUIPMENT REQUIRED

AUTHORIZED PERSONNEL ONLY

must be posted whenever hazardous operations, such as tank cleaning, are in progress.

(j) A tank barge undergoing cargo transfer operations must be designated a "regulated area" having access limited to authorized persons and requir-

ing a daily roster of authorized persons who may board the barge.

(k) Employees engaged in hazardous operations, such as tank cleaning, must be provided, and be required to wear and use respiratory protection in accordance with the provisions of 29 CFR 1910.1017 and protective garments, provided clean and dry for each use, to prevent skin contact with liquid vinyl chloride.

[CGFR 70-10, 35 FR 3714, Feb. 25, 1970, as amended by CGD 74-167R, 40 FR 17026, Apr. 16, 1975; CGD 88-100, 54 FR 40040, Sept. 29, 1989]

§ 151.50-36 Argon or nitrogen.

(a) A cargo tank that contains argon or nitrogen and that has a maximum allowable working pressure of 172 kPa (25 psig) or greater must have one of the following arrangements:

(1) A refrigeration system that keeps the tank pressure below the safety relief valve operating pressure when ambient temperatures are 46 °C (115 °F) air and 32 °C (90 °F) water.

(2) A relief valve or pressure control valve that maintains the tank pressure below the setting of the tank's required safety relief valve in ambient temperatures of 46 °C (115 °F) air and 32 °C (90 °F) water.

(b) A cargo tank with a maximum allowable working pressure of less than 172 kPa (25 psig) is approved by the Commandant (CG-522) on a case by case basis.

(c) Section 151.50-30 also applies to the carriage of argon or nitrogen.

[CGD 88-100, 54 FR 40040, Sept. 29, 1989]

§ 151.50-40 Additional requirements for carbon disulfide (carbon bisulfide) and ethyl ether.

(a) The provisions of this section are applicable if specifically referenced in the Special Requirements column of Table 151.05.

(b) Cargo tanks shall be electrically bonded to the hull of the vessel. A vessel shall be electrically bonded to the shore piping prior to connecting the cargo hose. This electrical bonding shall be maintained until after the cargo hose has been disconnected and any spillage has been removed.

(c) Pumps may be used for discharging cargo: *Provided*, That they are