

Refrigeration/Air Conditioning Condensate Discharge Summary

Description of Discharge

How is this discharge generated? This discharge is the drainage of condensed moisture from air conditioning units, refrigerators, freezers, and refrigerated spaces. Refrigerators, refrigerated spaces, freezers, and air conditioning units produce condensate when moist air contacts the cold evaporator coils. This condensate drips from the coils and collects in drains. Condensate collected in drains above the vessel waterline is continuously discharged directly overboard. Below the waterline, condensate is directed to the bilge, non-oily machinery wastewater system, or is retained in dedicated holding tanks prior to periodic overboard discharge.

Which vessels generate this discharge? Approximately 650 Navy, MSC, Coast Guard, Army, and Air Force vessels produce this discharge.

How often and where is this discharge generated? The condensate may be discharged at any time, both within and beyond 12 n.m. from shore.

Analysis

Nature of Discharge: Condensate flow rates depend on air temperature, humidity, and the number and size of cooling units per vessel. The discharge can contain cleaning detergent residuals, seawater from cleaning refrigerated spaces, food residues, and trace metals leached from contact with cooling coils and drain piping. Because evaporator coils are made from corrosion-resistant materials and condensation is non-corrosive, condensate is not expected to contain metals in significant concentrations.

Discussion and Discharge Determination

Discussion: Discharges of refrigeration and air conditioning condensate are expected to have a low potential for causing adverse environmental impacts, therefore EPA and DOD determined it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for condensate discharges.

Determination: A marine pollution control device is not required.