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Know the Laws on Sewage Disposal from Vessels

What laws pertain to the disposal of sewage and other wastewater from passenger vessels? To answer this question comprehensively, one must look at international treaties, federal statutes, and state law.

International Law

Revised Annex IV of the International Convention for the Prevention of Pollution from Ships (commonly called MARPOL) addresses the disposal of sewage from ships at sea. The United States has not ratified Annex IV, so at this date it does not apply to U.S.-flagged vessels. Nonetheless, it is useful to examine its regulatory scheme.

MARPOL Annex IV applies to a vessel that is engaged on an international voyage. The vessel must be

at least 400 gross tons or be certified to carry more than 15 persons. Every vessel covered by Annex IV must have either an approved sewage treatment plant, a sewage comminuting (pulverizing) and disinfecting system, or a sewage holding tank.

It is assumed that the high seas are capable of assimilating raw sewage through natural bacterial action. Therefore, the MARPOL Annex IV rules are stricter for ships closest to land. Only sewage processed through an operating approved sewage treatment plant can be discharged within three nautical miles of shore. In the zone between three and 12 nautical miles from land, a ship can discharge either treated sewage or sewage that has been comminuted and disinfected using an approved system. Beyond 12 nautical miles

from shore, a vessel may discharge untreated sewage into the ocean.

Marine Sanitation Devices

A U.S.-flagged vessel with an installed toilet on board must have and use a government-approved Marine Sanitation Device (MSD) for sewage. Depending on its design, a MSD either stores sewage on board or treats it for discharge into the water. This requirement does not apply to a U.S. vessel operating more than three miles from the coast. However, in federal waters within three miles of the shoreline, a vessel can discharge only treated sewage that has been processed through a MSD. There are three types of MSDs.

A Type I MSD relies on maceration (softening by soaking) and disinfection for treatment of the waste prior to its discharge into the water. A Type II MSD is similar but provides an advanced form of the same type of treatment and discharges wastes with lower fecal coliform counts and reduced suspended solids. A Type III MSD is commonly called a holding tank because the sewage flushed from the marine head is deposited into a tank containing deodorizers and other chemicals. The contents of the holding tank are stored until it can be properly disposed of at a shore-side pumpout facility. A Type III MSD can

Types of Marine Sanitation Devices		
Sewage Treatment Device	Vessel Length	Standard
Type I - Flow-through device (maceration and disinfection)	equal to or less than 65 feet in length	The effluent produced must not have a fecal coliform bacteria count greater than 1000 per 100 milliliters and have no visible floating solids.
Type II - Flow-through device (maceration and disinfection)	greater than 65 feet in length	The effluent produced must not have a fecal coliform bacteria count greater than 200 per 100 milliliters and suspended solids not greater than 150 milligrams per liter.
Type III - Holding tank	any length	This MSD is designed to prevent the overboard discharge of treated or untreated sewage.

be equipped with a discharge option, usually called a Y-valve, which allows the vessel to direct the sewage from the head either into the holding tank or directly overboard. Discharging the contents directly overboard is legal only at least three miles from shore.

No-Discharge Zones

The general rule is that sewage processed through an approved MSD on a vessel may be disposed into U.S. waters. However, section 312(f) of the Clean Water Act provides an option to states by which they can prohibit discharge of even treated sewage from a vessel into waters of a designated area, called a "no-discharge zone."

A state may designate a no-discharge zone if it determines that the protection and enhancement of the quality of the waters require greater environmental protection than current federal standards allow. Before the designation can occur, EPA must find that there are adequate facilities available to pump out sewage held on vessels.

Also, a state may also ask the EPA to ban any discharge of sewage (treated or untreated) from a vessel into specified waters that have environmental importance. The purpose is to protect human health (through water-contact activities), sensitive habitats, and aquatic organisms, birds, and other animals utilizing the water from adverse impacts of vessel sewage.

A third basis for the designation of a no-discharge zone is that the specified waters serve as drinking water intakes.

According to the EPA, no-discharge zones have been established in the following 25 states:

Arizona	California
Michigan	North Carolina
Connecticut	Minnesota
Rhode Island	Florida

Missouri	South Carolina
Georgia	Nevada
Tennessee	Kentucky
New Hampshire	Texas
Maine	New Jersey
Utah	Maryland
New Mexico	Vermont
Massachusetts	New York
Virginia	

New Mexico, New Hampshire, Rhode Island, Michigan, and Vermont have designated all of their state waters as no-discharge zones. In several instances, there is a no-discharge zone for a body of water that straddles state boundaries.

The criminal and civil penalties for improper discharge of sewage from a vessel can be steep. Earlier FOGHORN articles have reported how a northeastern ferry system deliberately disposed of untreated sewage into coastal waters. As a result, the director of marine operations was convicted of criminal charges and sentenced to 30 days in jail and a \$10,000 fine, and the ferry system received a civil fine of \$200,000.

Cruise Ships

Because of their size, the waste disposal practices of large cruise ships have received particular scrutiny over the past decade. It has been noted that a cruise ship with thousands of passengers and crew members generates as much sewage as a small town.

Some states have already enacted their own laws governing discharges of cruise ships operating in their waters. Alaska was the first to enact its own law. The California Clean Coast Act restricts or prohibits larger overnight cruise vessels and ocean-going ships over 300 gross tons from discharging sewage, sewage sludge, graywater, oily bilgewater, hazardous wastes, and certain other wastes within three miles of the coast.

There is no national cruise

ship law. However, since the year 2000, there has been a federal law that applies only to cruise ships in Alaskan waters.

Under a bill introduced in the prior Congress, discharges of sewage, graywater, and bilgewater into U.S. waters from most passenger vessels with overnight accommodations would be prohibited or severely restricted. The lead sponsor of the Clean Cruise Ship Act is Senator Richard Durbin of Illinois. Senator Durbin is preparing to introduce the bill anew in the current Congress.

The sponsors of the Clean Cruise Ship Act are aiming at cruise ships carrying thousands of passengers. However, as written, the legislation will affect "small ship" cruise vessels as well, potentially affecting some PVA members.

The legislation applies to any "cruise vessel." As defined in the previous version of the bill, a cruise vessel is a passenger vessel authorized to carry at least 250 passengers with onboard sleeping facilities for each passenger. Most, but not all, PVA vessel operators would not fall within the coverage of the bill; however, the bill defines a "passenger" as "any person on board a cruise vessel for the purpose of travel," including a crew member, captain, or officer. Therefore, since some PVA members have more than 250 persons aboard (paying passengers and vessel crew members) with overnight accommodations for them, the bill could apply to their vessels.

As a general rule, the bill would ban a cruise ship from discharging into coastal and ocean waters within 12 miles of shore any sewage, sewage sludge, graywater, or bilgewater, whether or not the discharge was treated. In other words, these waters would be embraced in a "no-discharge zone."

In the waters from 12 to 200 miles

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from shore, the bill would allow cruise ship discharges of treated sewage and graywater only.

Conclusion

Passenger vessel operators should be vigilant in understanding the various laws that govern the wastes from their vessels. While this article has addressed the discharge of sewage, there are rules governing

disposal of oily bilgewater, plastics, refuse, oil, and even graywater. In the past few years, federal prosecutors have filed scores of charges against vessel operators (primarily, but not exclusively, those registering their ships under foreign flags) for environmental violations. The public is quick to report marine pollution, and federal law allows the award of substantial sums of money to crew members who are "whistleblowers." Laws and rules

even tougher than those currently on the books are likely to be enacted. The passenger vessel industry can be confident that its environmental compliance record is going to come under increased scrutiny. Finally, the industry depends on maintaining the attractive features of the waters on which its vessels sail, so it behooves all to adhere to a high standard of environmental ethic. ■