

WASTE STREAM DETAILS

TYPES OF WASTE

TREATMENT & REQUIREMENT

BILGE WATER:

Wastewater normally generated in the machinery spaces of the engine room during vessel operation.

Bilge water is processed through approved oil filtering equipment so that the oil content of treated bilge water without dilution does not exceed 15 parts per million (ppm) as per international regulations.

On all of our ships, we have installed redundant systems that monitor treated bilge water a second time prior to discharge to ensure the treated bilge water contains less than 15ppm of oil before being discharged overboard. This voluntary and proprietary system provides additional control to prevent overboard discharges of processed bilge water that is \geq 15ppm of oil. If the system reading indicates 15ppm or greater of oil, it will sound an alarm and automatically stop the discharge, redirecting the flow to onboard storage tanks.

Bilge water discharges are in strict compliance with applicable international and national laws and regulations, and often contain less than five ppm of oil.

Bilge water not meeting discharge criteria and oil residues/sludge are offloaded for shoreside disposal or recycling depending on available shoreside infrastructure.

Bilge water from Carnival Corporation & plc ships is discharged only when the ships are underway at sea and proceeding at a speed greater than six knots and 12 nautical miles from shore.

GRAY WATER:

Wastewater from sinks, showers, galleys, laundry and some cleaning activities.

Gray water on most ships is not typically treated unless an Advanced Wastewater Purification System (AWWPS) is used.

Gray water from Carnival Corporation & plc ships is discharged only while the ships are underway and proceeding at a speed greater than six knots and 4 nautical miles from shore.

BLACK WATER:

Wastewater from toilets, urinals and liquid waste from medical facilities.

Black water from our ships is treated by a sewage treatment plant called a Marine Sanitation Device (MSD) or by an Advanced Wastewater Purification System (AWWPS).

Black water is treated by an AWWPS for a certain percentage of our fleet that uses technologies designed to produce a higher effluent quality that meets or surpasses sewage standards for secondary and tertiary effluents, and reclaimed water.

Black water discharges from Carnival Corporation & plc ships treated by an MSD take place only when the ship is at a distance of more than 12 nautical miles from baseline and when the ship is traveling at a speed greater than six knots. Treated black water by AWWPS can be discharged outside 4 nautical miles from the baseline, and at a speed greater than six knots.

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REGULATED WASTE:

Includes cleaning solutions generated from operations of the ship, biomedical type waste and chemical products or paints that are non-hazardous.

Carnival Corporation & plc shipboard regulated waste is generally transferred to licensed shoreside waste contractors for appropriate disposal. Some types of regulated waste can be incinerated onboard.

FOOD WASTE:

Any uneaten spoiled or unspoiled food substances, including fruits, vegetables, dairy products, poultry, meat products and food scraps generated aboard the ship.

Food waste may be processed by being comminuted/ ground so that it is able to pass through a screen with openings no greater than 25mm or left as is.

Comminuted food waste from Carnival Corporation & plc ships is discharged greater than 4 nautical miles from baseline. Non-comminuted food wastes can be discharged at greater than 12 nautical miles from baseline, and at a speed greater than six knots.

SOLID WASTE:

Any refuse, and other discarded materials not considered hazardous.

Solid waste generated onboard can be incinerated onboard or landed ashore to be landfilled or incinerated. Carnival Corporation & plc ships are equipped with incinerators, and compactors to manage solid waste.

HAZARDOUS WASTE:

Waste that poses a risk to human health or to the environment and typically exhibit at least one of four characteristics (ignitibility, corrosivity, reactivity, or toxicity).

Carnival Corporation & plc shipboard hazardous waste disposal is transferred to licensed shoreside waste contractors for disposal in accordance with applicable regulations.

RECYCLED WASTE:

Materials that can be diverted from landfill or incineration and are managed through recycling processes where the material can be used again.

Recycling containers are placed throughout the ships to allow items to be segregated for recycling at the source. In addition, designated crew sorts trash to ensure recyclable items are not commingled with other waste streams.

After sorting, recyclable materials are crushed, baled and readied for offload ashore. We strive to maximize the offload of recyclable items in ports of call where facilities exist with the infrastructure. However, there are locations where the infrastructure is not in place, which means that some recyclable items may not be recycled. Our standard recycled materials include plastic, glass, paper, cardboard, oily waste, used cooking oil, refrigerants, aluminum, electronic equipment, toner cartridges, batteries, fluorescent lamps, silver (recovered from photo and X-ray processing fluids) and scrap metal.