

2020 Cruise Ship Report Card



Is Clean Cruising Possible?

Prior to the COVID-19 pandemic, millions of Americans took cruise vacations every year. Yet, most travelers didn't realize that taking a cruise is more harmful to the environment and human health than many other forms of travel. For decades, the cruise industry's business practices have put the environment, climate, and public health of coastal communities, passengers, crew, and coastal and marine ecosystems at risk. In addition, most governments have refused to enact strong regulations for the cruise industry, ignored the ongoing damage the industry does to communities and the environment, or have caved to industry pressure to develop their pristine resources for industry profit. The 2020 Cruise Ship Report Card takes a continued hard look at the cruise industry to see if clean cruising is possible and in most cases the answer is still a resounding **NO!**

We evaluated 18 major cruise lines on 4 environmental factors:

| Sewage Treatment: | Air Pollution Reduction: | Water Quality Compliance: | Transparency: |
|---|--|---|--|
| Whether a cruise line has installed the most advanced sewage and graywater treatment systems available instead of dumping minimally treated sewage directly into the water. | Whether a cruise line has retrofitted its ships to "plug in" to available shoreside electrical grids instead of running polluting engines when docked. Or uses the lowest sulfur fuel worldwide or both. | To what degree cruise ships violated 2010-2019 water pollution standards designed to better protect the Alaskan coast. Ships were also failed for scrubber use since they generate toxic water pollution. | Did the cruise lines respond to our requests for information with specifics regarding their environmental practices. |

Criminal Violations: All Carnival Corporation companies committed criminal environmental violations from 2017 - 2020.

| CRUISE LINE | Sewage treatment | Air pollution reduction | Water quality compliance | Transparency | Criminal Violations | 2020 FINAL GRADE |
|----------------------|------------------|-------------------------|--------------------------|--------------|---------------------|------------------|
| Disney | C | A- | A | A | | X B- |
| Silversea | D- | F | A | A | | C |
| Celebrity | C | F | F | A | | D+ |
| Royal Caribbean | C- | F | F | A | | D |
| Virgin Voyages | C | F | F | A | | D |
| Regent Seven Seas | C | F | A | F | | D |
| Princess | C- | C | D+ | F | ✓ | X F |
| Norwegian | C | D- | F | F | | D- |
| Oceania | D | F | C+ | F | | D- |
| Seabourn Cruises | C | F | D- | F | ✓ | X F |
| Holland America | C | F | F | F | ✓ | X F |
| Cunard | C | F | F | F | ✓ | X F |
| AIDA Cruises | C- | F | F | F | ✓ | F |
| P&O Cruises | D- | F | F | F | ✓ | F |
| Carnival Cruise Line | F | D | F | F | ✓ | F |
| MSC Cruises | D- | F | F | F | | F |
| Costa | F | F | F | F | ✓ | F |
| Crystal | F | F | N/A | F | | F |

Royal Caribbean Group -

Carnival Corporation -

Norwegian Cruise Line Holdings -

Cruise Sewage: What Goes in Must Come Out

The enormous amounts of food and drink consumed on cruise ships, along with water from laundry, pool, medical facilities, photo labs, spas, and dry cleaning stations, has to go somewhere. At sea, what you flush down the toilet can actually be dumped untreated into the ocean to contaminate fish and other marine life, so long as the ship is at least three nautical miles from shore. This sewage contains pollutants including fecal matter, bacteria, viruses, pathogens, nutrients, hazardous waste and pharmaceuticals, all of which can be harmful to human health and aquatic life.

Sewage Endangers

Seafood consumers, beachgoers, surfers, and water sport enthusiasts can contract illnesses, gastrointestinal diseases, diarrhea, ear nose and throat problems, vomiting, hepatitis, and respiratory diseases, when exposed to sewage-contaminated waters or seafood.

Sewage Kills

Fish, shellfish, coral reefs, and other aquatic life can suffocate due to surplus nitrogen and phosphorous from ship sewage that can promote excessive algal growth which reduces available oxygen levels in the water. Hundreds of manatees off the Florida coast die every year as a result of algal blooms.

How much sewage comes from one ship?

The U.S. EPA estimates that a 3,000-person cruise ship generates 150,000 gallons of sewage per week — enough to fill 10 backyard swimming pools. This adds up to more than 1 billion gallons of sewage a year for the industry.

How does a cruise ship manage sewage?

There are 3 primary methods ships can use to manage sewage:

- 1) Cruise ships can use traditional Marine Sanitation Devices (known as Type II MSDs). Although cruise ships can legally use 35-year-old MSD technology to treat sewage, the U.S. EPA has found that sewage treated with this older technology often contains significant amounts of fecal bacteria, heavy metals, and nutrients in excess of federal water quality standards.
- 2) Cruise ships can use the most advanced sewage treatment technology available (AWTS), which provides better screening, treatment, disinfection, and sludge processing. Even AWTS have trouble removing all dissolved metals and nutrients and can release harmful substances into valuable coastal and marine environments.
- 3) The last and most environmentally protective method is for cruise ships to hold treated sewage onboard and not dump near our sensitive coasts and marine protected areas.

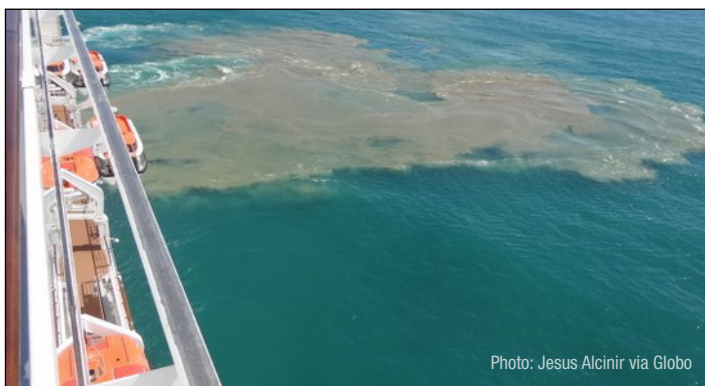


Cruise Ships Pollute the Air We Breathe

Cruise ships are also responsible for significant air pollution from the dirty fuel they burn, which can lead to serious human health problems. Even while at dock, cruise ships often run dirty diesel engines to provide electrical power to passengers and crew. Emissions from cruise ship engines include NO_x, SO_x, CO₂, and diesel PM, the microscopic soot that is so damaging to human health. Among other health and environmental impacts, these emissions contribute significantly to serious cardiovascular problems, premature death, acid rain, habitat destruction, and climate change. According to the EPA, each day an average cruise ship is at sea it emits more SO_x than 13 million cars and more soot than 1 million cars.

How can a cruise ship reduce air pollution in port?

In U.S. waters ships are required to use cleaner fuel and a few cruise lines have adopted technologies that reduce dirty air emissions from cruise ships. Cold ironing technology allows cruise ships at dock to plug in to shoreside power and receive electricity to operate their refrigeration, cooling, heating, and lighting systems without having to burn dirty fuel in ship engines. Cruise ships have installed scrubbers to reduce smoke stack emissions but while they reduce air pollution most discharge contaminated waste water—trading one pollution source for another. Using the cleanest fuel available and adopting shorepower are the best options.



For more information, visit Friends of the Earth: www.foe.org/cruise-report-card

