

THE CRUISE INDUSTRY'S ENVIRONMENTAL INITIATIVES

The major cruise lines have done much to respond to the challenge of preserving the environment on which their business depends...Nevertheless, as the cruise lines' environmental officers themselves emphasize, key challenges remain.

Center of Environmental Leadership in Business
A Shifting Tide: Environmental Challenges
and Cruise Industry Responses

We couldn't have said it better ourselves. That's why the cruise industry is continually exploring ways to foster and gauge our success and correct our deficits. And, although we comprise less than 5% of all passenger ships and only 0.2% of the world's merchant fleet, we lead the way in cutting edge technology and management practices that foster a healthy marine environment.

Our environmental challenges are sevenfold: air emissions, ballast water and non-native species, wastewater, hazardous waste, oily bilge water and the potential impact on coral reefs – the same environmental challenges facing every segment of the maritime industry.

Air emissions on cruise ships are being addressed with cruise industry support of the development and introduction of new engines that dramatically reduce air emissions. In addition, the development of innovative "enviroengines" has resulted in emission reductions as well as less fuel use and no visible smoke.

Ballast water and non-native species are the bane of ship operators worldwide, but the cruise industry is taking every feasible step to

curb the problem. First of all, cruise ships travel to open ocean environments to take on their ballast water. So our chances of taking on non-native species are less. In addition, the industry is testing a number of new technologies, including the use of ozone, ultraviolet, filtration, heat, chemical brocides and deoxygenation. At the same time, the U.S. Environmental Protection Agency (EPA) is working on 22 potential approaches to assist in finding a solution.

Wastewater includes both graywater, which is our largest liquid waste and the byproduct of cleaning, and blackwater, which is sewage. The industry has agreed to discharge graywater and blackwater only when ships are underway at a speed of not less than six knots and more than four miles away from port. In addition, Marine Sanitation Devices (MSD) are

Separate studies by the EPA and Science Advisory Panel of the State of Alaska showed that wastewater from cruise ships was dispersed quickly with minimal impact on the marine environment. In July 2002, the Alaska Department of Environmental Conservation (ADEC) conducted Whole Effluent Toxicity (WET) tests on the wastewater effluent from five different cruise ships operating in Alaska waters. In these WET testing cases, the short and long-term lethal or reproductive effects on indigenous marine animal species were tested in various dilutions of discharge streams from cruise ships. Study results show that at a dilution rate of 200:1, wastewater has essentially no impact on the animal species. The ADEC scientific review panel stated that wastewater discharges from large cruise ships, while underway, are not of concern.

used to process blackwater with discharge characteristics equivalent to land-side treatment plants. Some ICCL members have adopted even stricter rules and continue to develop new advanced treatment



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systems whose effluent produces quality drinking water that should eventually be permitted to be discharged anywhere.

Hazardous waste is of great concern to the members of the ICCL. *The Waste Management Practices and Procedures*, which have been agreed to by all of ICCL members, are very specific. These standards require the disposal of all hazardous materials by licensed land-side vendors who must ensure full compliance with laws and environmental regulations. In addition, operators are eliminating the use of products that result in the production of hazardous waste materials. Where products cannot be eliminated, procedures are being put into place to limit their use.

Oily bilge water is the result of minor engine and machinery leaks, as well as residue from maintenance. Management of oily bilge water is a challenge the cruise industry takes very seriously. In addition to the current generation of oily water separators resulting in lower oil content in discharge, the introduction of new technology such as gas turbine engines and the use of plasma energy to treat bilge water now make it possible to reach environmental goals that were not possible a decade ago.



Coral reefs are one of the most wondrous spectacles in the world. These delicate reefs are home to many species of fish as well as an important source of pharmaceutical compounds. Diseased or damaged reefs are a detriment to our business as well as the earth's environment. ICCL members have

Additional information can be found on the following Web sites:

- Alaska Department of Environmental Conservation's Cruise Ship Waste Disposal and Management study results:
www.state.ak.us/dec/press/cruise/documents/impactcruise.htm
- Scientific guidance and input on the Alaska Department of Environmental Conservation testing program from The Science Advisory Panel: www.state.ak.us/dec/press/cruise/documents/wetfinal.htm
- EPA Cruise Ship Plume Tracking Report — www.epa.gov/owow/oceans/cruise_ships
- International Council of Cruise Lines Waste Management Practices and Procedures — www.iccl.org/policies/stds-environment.htm

gone to great lengths to promote their growth and well-being through strict practices and procedures in and around the reefs as well as advocacy and support of education and research to enhance their survival.

An enthusiastic partnership with the EPA in the development and implementation of their proposed "Blue Cruise Program" is just one of the numerous proactive steps the cruise industry is taking to address environmental challenges. This federally-certified environmental program will encourage reductions in both air and waste emissions. Individual ships meeting the award-winning standards will be recognized.

From technology to procedures to programs, the cruise industry stands ready to work with other responsible parties to protect and promote a clean environment worldwide. Our commitment, in both money and manpower, to making that happen is second only to our determination to ensure that ICCL members uphold the standards we've agreed upon in our mandatory *Waste Management Practices and Procedures*, which meets or exceeds environmental laws worldwide. Recent environmental awards to ICCL member lines are a testament to the industry commitment to the health of our shared planet.



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