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This document is a portion of the *Cruise Ship Discharge Assessment Report (Assessment Report)*, published on December 29, 2008. The reference number is EPA 842-R-07-005.

The entire Assessment Report can be accessed at  
[http://www.epa.gov/owow/oceans/cruise\\_ships/disch\\_assess.html](http://www.epa.gov/owow/oceans/cruise_ships/disch_assess.html).

## **Cruise Ship Discharge Assessment Report**

**Appendices**  
**Back Page**

December 29, 2008

## Appendix A. *List of Acronyms*

<b>ACSI</b> .....	Alaska Cruise Ship Initiative
<b>ADEC</b> .....	Alaska Department of Environmental Conservation
<b>ALBD</b> .....	Available Lower Berth Day
<b>APPS</b> .....	Act to Prevent Pollution from Ships
<b>AWT</b> .....	Advanced Wastewater Treatment
<b>AWTs</b> .....	Advanced Wastewater Treatment systems
<b>BOD</b> .....	biological oxygen demand
<b>Cal/EPA</b> .....	California Environmental Protection Agency
<b>CCC</b> .....	criterion continuous concentration
<b>CELB</b> .....	Center for Environmental Leadership in Business
<b>CERCLA</b> .....	Comprehensive Environmental Response, Compensation, and Liability Act
<b>CESQG</b> .....	conditionally exempt small quantity generator
<b>CFR</b> .....	Code of Federal Regulations
<b>C.L.</b> .....	Confidence Limit
<b>CLIA</b> .....	Cruise Lines International Association
<b>CMC</b> .....	criteria maximum concentration
<b>COA</b> .....	Certificate of Adequacy
<b>COTP</b> .....	Captain of the Port
<b>CWA</b> .....	Clean Water Act
<b>CRS</b> .....	Congressional Research Service
<b>DAF</b> .....	dissolved air flotation

<b>DOC</b> . . . . .	Document of Compliance
<b>EPA</b> . . . . .	U.S. Environmental Protection Agency
<b>EEZ</b> . . . . .	U.S. Exclusive Economic Zone
<b>FR</b> . . . . .	Federal Register
<b>gal/day/pers</b> . . . . .	gallons per day per person
<b>GAO</b> . . . . .	U.S. General Accounting Office (now the U.S. Government Accountability Office)
<b>HEM</b> . . . . .	hexane extractable material
<b>ICCL</b> . . . . .	International Council of Cruise Lines
<b>IFO</b> . . . . .	intermediate fuel oil
<b>IMO</b> . . . . .	International Maritime Organization
<b>ISM</b> . . . . .	International Safety Management
<b>ISPPC</b> . . . . .	International Sewage Pollution Prevention Certificate
<b>LQG</b> . . . . .	large quantity generator
<b>MARPOL</b> . . . . .	International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)
<b>MBR</b> . . . . .	Membrane Bioreactor
<b>MEPC</b> . . . . .	Marine Environment Protection Committee
<b>MPN</b> . . . . .	most probable number
<b>MPRSA</b> . . . . .	Marine Protection, Research, and Sanctuaries Act
<b>MSD</b> . . . . .	marine sanitation device
<b>NC</b> . . . . .	not collected
<b>ND</b> . . . . .	not detected
<b>NDZ</b> . . . . .	no-discharge zone

<b>NH<sub>3</sub></b> .....	unionized ammonia
<b>NH<sub>4</sub><sup>+</sup></b> .....	ionized ammonia
<b>nm</b> .....	nautical mile
<b>NMSA</b> .....	National Marine Sanctuaries Act
<b>NOAA</b> .....	National Oceanic and Atmospheric Administration
<b>NOx</b> .....	nitrous oxide
<b>NPS</b> .....	National Park Service
<b>NPDES</b> .....	National Pollutant Discharge Elimination System
<b>NR</b> .....	not recorded
<b>NRC</b> .....	National Research Council
<b>NRWQC</b> .....	National Recommended Water Quality Criteria
<b>OECD</b> .....	Organization for Economic Co-operation and Development
<b>OPA</b> .....	Oil Pollution Act of 1990
<b>OWS</b> .....	Oily Water Separator
<b>PAH</b> .....	polycyclic aromatic hydrocarbon
<b>POTWs</b> .....	publicly owned treatment works
<b>ppm</b> .....	parts per million
<b>Pub. L.</b> .....	Public Law
<b>RCRA</b> .....	Resource Conservation and Recovery Act
<b>RCCL</b> .....	Royal Caribbean Cruises Ltd.
<b>SMS</b> .....	Safety Management System
<b>SOLAS</b> .....	International Convention for the Safety of Life at Sea
<b>SQG</b> .....	small quantity generator

<b>TOC</b> .....	total organic carbon
<b>U.S.</b> .....	United States
<b>USCG</b> .....	United States Coast Guard
<b>UV</b> .....	ultraviolet
<b>U.S.C.</b> .....	United States Code
<b>VGP</b> .....	Vessel General Permit
<b>WHO</b> .....	World Health Organization

## Appendix B. State Efforts to Address Discharges from Cruise Ships

The Cruise Ship Discharge Assessment Report (Assessment Report) presents on-going actions by the federal government to address five primary waste streams from cruise ships (sewage, graywater, oily bilge water, solid waste, and hazardous waste). Based on the public comments received on the draft of the report, as well as other information gathered, a wide range of options and alternatives is listed for each abovementioned waste stream. Identification of any particular option does not imply EPA recommendation or preference for future action, or that EPA has determined that any of these options are necessary or feasible, or that EPA believes a change to the status quo is warranted, or that EPA or any other entity has the legal authority to implement that option. Nevertheless, the range of options and alternatives presented in this Assessment Report may be useful to government entities such as state, local, and tribal entities that are interested in addressing cruise ship waste streams.

There are a number of states (Alaska, California, Florida, Hawaii, Maine, and Washington), as well as Native American Tribes, that have on-going efforts to address the frequency of cruise ship traffic and the range of issues associated with discharges from these vessels. Some states have taken action independent of federal requirements by passing legislation controlling cruise ship discharges, creating industry partnership programs under which cruise lines voluntarily adopt certain environmental practices, and/or establishing No Discharge Zones where the discharge of sewage from vessels (whether treated or not) is prohibited. Listed below are some links to access current state efforts.

State	General Information Regarding Cruise Ship Efforts
Connecticut	<a href="http://www.ctcruiseship.com/">http://www.ctcruiseship.com/</a>
Florida	<a href="http://www.dep.state.fl.us/secretary/news/2000/00-MOUcruise.htm">http://www.dep.state.fl.us/secretary/news/2000/00-MOUcruise.htm</a>
	<a href="http://www.dep.state.fl.us/water/wastewater/vessel.htm">http://www.dep.state.fl.us/water/wastewater/vessel.htm</a>
Hawaii	<a href="http://www.co.maui.hi.us/index.asp?NID=631">http://www.co.maui.hi.us/index.asp?NID=631</a>
	<a href="http://healthuser.hawaii.gov/health/about/pr/2003/03-94epo.html">http://healthuser.hawaii.gov/health/about/pr/2003/03-94epo.html</a>
	<a href="http://www.epa.gov/owow/oceans/cruise_ships/hawaiimou.pdf">http://www.epa.gov/owow/oceans/cruise_ships/hawaiimou.pdf</a>
Maine	<a href="http://www.state.me.us/dep/blwq/topic/vessel/cruiseship/rule/history.htm">http://www.state.me.us/dep/blwq/topic/vessel/cruiseship/rule/history.htm</a>
	<a href="http://www.state.me.us/dep/blwq/topic/vessel/LCPV/index.htm">http://www.state.me.us/dep/blwq/topic/vessel/LCPV/index.htm</a>
	<a href="http://www.barharbormaine.gov/xhtml/171/Permalink/363/">http://www.barharbormaine.gov/xhtml/171/Permalink/363/</a>
Washington	<a href="http://www.ecy.wa.gov/programs/wq/wastewater/cruise_mou/index.html">http://www.ecy.wa.gov/programs/wq/wastewater/cruise_mou/index.html</a>

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