

# EPA and Cruise Ship Discharges

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Public Information Hearings

Los Angeles, CA Sept 6, 2000

Juneau, AK Sept 8

Miami, FL Sept 12



# Threats Facing Our Oceans

Every day our oceans face a number of threats caused by humans.

These include:

- Discharges from point and non-point sources
- Marine debris
- Physical alterations of ecosystems
- Storm water runoff
- Increase in coastal development
- Overexploitation of resources
- Introduction of non-native species
- Global warming
- Damage caused by commercial and recreational use

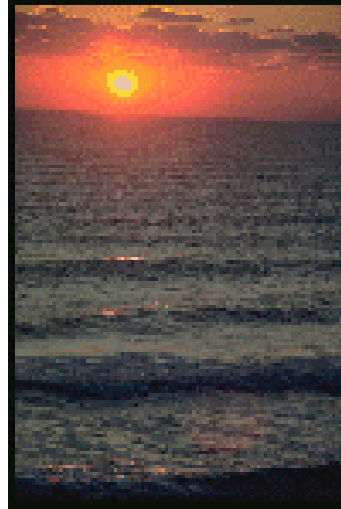


Photo by: National Oceanic and Atmospheric Administration  
/Department of Commerce



## Coastal/Ocean Pollution Problems

- **Harmful Algal Blooms on the rise**
  - Red Tides, Green Tides, Brown Tides
  - Beach Closures and Human Health Impacts
- **Hypoxia - Gulf of Mexico's Dead Zone: 7000 square miles in 1999**
- **40% of surveyed beaches posted warnings or closed in 1998 due to contamination (e.g., pathogens, debris).**
- **60% of the world's coral reefs are threatened by pollution; 10% have been lost.**
- **In 1998, 60% of coastal waters had fish advisories due to toxic chemicals.**
- **Remaining freshwater and coastal problems largely due to smaller, "nonpoint" sources.**



## Potentially Related Actions

- Ballast Water Petition
- Uniform National Discharge Standards for Armed Forces Vessels
  - **EPA & Navy Characterizing Waste Streams; Designation of Discharge Standards Forthcoming**
- Executive Order 13158
  - **Proposed Regulations Under CWA Sec. 403 by December**



# Executive Order 13158

May 26, 2000

## Marine Protected Areas

Protect the significant natural and cultural resources within the marine environment for the benefit of present and future generations by strengthening and expanding the Nation's system of Marine Protected Areas (MPAs).



Photo: [www.whitehouse.gov](http://www.whitehouse.gov)



# Cruise Vessels

"Floating Cities"

- Sewage
- Gray water
- Bilge water
- Ballast Water
- Discharges from
  - **Photo Labs**      –**Dry Cleaning**
  - **Hair Salons**     –**Other processes**
- Incinerator Ash
- Solid Wastes
- Hazardous Materials
- Air Emissions



## Bluewater Network Petition's Stated Concerns

Discharge	Petition's stated concern
<b>Sewage</b>	<b>Inadequate regulation, inspection, enforcement</b>
<b>Gray water</b>	<b>Regulations allow discharge almost everywhere. Operational definition of gray water</b>
<b>Solid Waste</b>	<b>Monitoring and enforcement of compliance</b>
<b>Hazardous Waste</b>	<b>Clarity of RCRA regulations' applicability to ships</b>
<b>Oily Bilge Water</b>	<b>Monitoring and enforcement of compliance</b>
<b>All waste streams</b>	<b>Too little is known of the amount and type of waste generated, and its effect on the environment</b>



## Petition Requests

- Assess cruise ship waste streams and their potential impact, including:
  - **Volumes of all wastes**
  - **Adequacy of existing regulations**
  - **Options for a monitoring, record-keeping and reporting**
- Evaluate repealing 40 CFR § 122.3(a), thereby requiring National Pollution Discharge Elimination System (NPDES) permits for vessel discharges
- Consider more strictly defining and regulating gray water
- Consider clarifying and strengthening the regulations governing hazardous wastes on cruise ships





## Current EPA Regulatory Authorities/Programs



- CWA
- RCRA
- SPA
- MPRSA



## Sewage - MSDs

### Clean Water Act – Section 312

- Requires vessels to have Marine Sanitation Devices (MSDs) to treat sewage
- EPA establishes performance standards for MSDs
- Coast Guard sets rules for design, construction, installation, operation of MSDs
- MSD standards:
  - **Types I and II have coliform standards**
  - **Type III: holding tanks**



Section 312 establishes effluent standards for marine sanitation devices (MSDs), Section 312 is jointly implemented by EPA and Coast Guard.

EPA is responsible for developing effluent performance standards for MSDs and the Coast Guard is responsible for MSD design, construction, installation, operation regulations, and certifying MSD compliance with EPA regulations

## Sewage - MSD Standards

<u>MSD Type</u>	<u>Standard</u>
I	<ul style="list-style-type: none"><li>• Effluent fecal coliform bacteria count not greater than 1,000 per 100 ml</li><li>• No floating solids</li></ul>
II	<ul style="list-style-type: none"><li>• Effluent fecal coliform bacteria count not greater than 200 per 100 ml</li><li>• Suspended solids not greater than 150 Milligrams per liter</li></ul>
III	<ul style="list-style-type: none"><li>• Holding tank (discharge only to pumpout facility or outside of US navigable waters)</li></ul>



## Sewage - NDZs

### Clean Water Act – Section 312

- Allows areas to be established where treated or untreated sewage cannot be discharged
- States can establish No-Discharge Zones (NDZs)
- Section 312 applies only out to three miles
- Enforced primarily by Coast Guard



EPA can issue regulations establishing NDZs for vessel sewage if a State certifies that the waters need additional protection

States can also establish NDZs, if adequate pumpout facilities are available

# NPDES Program

## Clean Water Act Section 402

EPA's regulations implementing section 402 contain an exclusion for some discharges:

*"The following discharges do not require NPDES permits:  
(a) any discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, or any other discharge incidental to the normal operation of a vessel. The exclusion does not apply to rubbish, trash, garbage, or other such materials"  
[40 CFR 122.3(a)]*



## Norms for Land Based Facilities (CWA 101)

- Key roles for States/Territories/Tribes
- Best Available Technology (**Effluent Guideline**)
  - **for sewage and domestic gray water: secondary (biological) treatment**
- Whole Effluent Toxicity Testing
  - **unidentified pollutants/additive effects**
- For WQ Limited Waterbodies
  - **additional treatment as needed to assure chemical and biological criteria/standards are met**
- Requirements expressed in permits (authorization to discharge)
- Dischargers monitor effluent and report to permit authority



## Solid and Hazardous Wastes Statutes

- Resource Conservation and Recovery Act (solid waste, hazardous waste)
- Marine Protection, Research, and Sanctuaries Act (transport of waste for the purposes of dumping)
- Shore Protection Act (waste handling practices for vessels)
- Act to Prevent Pollution from Ships (oil, noxious substances, garbage, plastic)



## Non-regulatory Programs

- Project XL
- "Performance Track"
- Energy Star
- WAVE
- Green Ports
- Golf and Environment
- Sustainable Slopes
- *Project 33/50 (TRI)*





# Options Under Consideration

- Regulating under NPDES program
- Revision of CWA §312 Regulations
- International Safety Management (ISM) Code /Environmental Management Systems (EMS)
- Other options...



## Next Steps

- Public Information Hearings
  - ***need information on practices and performance***
- Prepare assessment
- Work with Coast Guard in Formulating recommendations
- Public Dialog on Draft Recommendations
- Issue Recommendations
- Initiate Actions



*Future generations deserve to enjoy healthy, bountiful waters.*



Photos by: National Oceanic and Atmospheric Administration  
/Department of Commerce



EPA's whole reason for existence is the protection of our environment, including the marine environment. We're committed to do what we need to do to safeguard our waters.

We welcome the opportunity to work with the industry to support voluntary programs in situations where they work.

We will undertake regulatory programs within our authority in situations where they are necessary.

We will make use of all the information you can provide us to help determine which situations are which.