



PRIORITY POLLUTANT SAMPLING

Alaska Cruise Ship Initiative

Alaska Department of Environmental Conservation
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www.state.ak.us/dec/press/cruise/cruise.htm

What are priority pollutants?

- 126 toxic chemicals, identified by EPA in the federal Clean Water Act, that when present above certain levels may indicate improper handling and disposal of hazardous waste.

What are the standards?

- The U.S. Environmental Protection Agency has developed recommended water quality criteria for some, but not all, of the priority pollutants. Alaska has adopted by reference, most of the EPA recommended criteria for the priority pollutants in the Water Quality Standards regulation.
- In Alaska, the results are being compared to the water quality criteria (WQC). The water quality criteria apply to the receiving water, not directly to the wastewater discharges from the cruise ships. Typically, water quality criteria are used to develop effluent limits in permits, usually taking into account some amount of dilution in the receiving water. However, since water quality criteria are the only benchmarks available for these pollutants, the cruise ship wastewater analysis are being compared to the water quality criteria as a starting point for understanding the possible impact of the discharges on Alaska waters.
- The WQC are the levels in water, above which a compound may be harmful to aquatic life, from microscopic organisms to fish. These levels to protect aquatic life are frequently much lower than the levels allowed in drinking water. This is because a human being is much larger than a microscopic organism. and can therefore tolerate higher levels.

Date	Time	SITE DESCRIPTION / IDENTIFIER	MATRIX	BOD	TSS	PH	COD
8/18	4:02	T2 TBW OVERBOARD SPIGOT	H ₂ O				
8/18	4:05	T2 TBW OVERBOARD SPIGOT	H ₂ O				
8/18	4:07	T2 TBW OVERBOARD SPIGOT	H ₂ O				
8/18	4:10	T2 TBW OVERBOARD SPIGOT	H ₂ O				
8/18	4:12	T2 TBW OVERBOARD SPIGOT	H ₂ O				
8/18	4:15	T2 TBW OVERBOARD SPIGOT	H ₂ O				
8/18	4:17	T2 TBW OVERBOARD SPIGOT	H ₂ O				

What have we found?

- Each ship was sampled one time for priority pollutants.
- Samples from seven ships have been analyzed for priority pollutants. Samples from the remaining ships will be analyzed and discussed in the report, due in early 2001.
- Levels of five metals -- copper, lead, zinc, silver, and nickel -- have been found in some samples to be above the water quality criteria.
- Levels of phthalates, a class of priority pollutant that helps to impart flexibility to plastics, have also been found above water quality criteria.

- Initial lab results showed low levels of pesticides in the samples. These have been ruled “false positives” by the contract laboratory.
- We have not seen levels of priority pollutants in wastewater discharges to date that indicate mixing of hazardous waste with those discharges.

What do we do next?

- The lab will analyze the remaining samples and report the results to the agencies and water quality work group.
- If sample results show improper handling and disposal of hazardous waste, agencies will take appropriate action.