

The Cruise Line Industry is Getting Cleaner

by Zoltan C. Mester, Ph.D.

The cruise industry is a major growing economic force with a worldwide fleet of more than 223 ships. Approximately 50 percent of the worldwide cruise line fleet conducts business from North American ports which contributed more than \$11 billion to the U. S. economy in 1999. From North American ports alone, between 1993 and 1998, passenger volume increased by nearly 50 percent to approximately 9.5 million passengers. By 2003, with the addition of 33 new ships, the passenger capacity is expected to increase by 35 percent.

The high visibility and burgeoning size of the cruise line fleet have made the cruise ship industry a recent target of environmental scrutiny. The General Accounting Office (GAO) issued a 72-page report in February 2000, (GAO/RCED-00-48) highlighting the environmental status of the cruise ship industry, based on information from 12 cruise line companies. Responding to this report and calls from environmental groups to “address pollution by cruise ships”, the EPA issued a Cruise Ship White Paper in August 2000 and held public hearings on this topic.

In Alaska, visiting cruise ships are facing enhanced scrutiny, and the Alaskan Legislature is working on a set of measures that would monitor and control the environmental “cleanliness” of cruise liners. Other states including California, Florida, and Washington will likely to follow the Alaska example to put pressure on the cruise line industry to improve its environmental performance.

Waste Streams and Relevant Environmental Laws

Cruise ships generate a variety of waste streams including black water (sewage), gray water (shower, sink and galley water), oily bilge water, solid wastes (paper, plastic, sludge, etc.) and hazardous wastes (paint, photo lab chemicals, cleaning materials, etc.). Air emissions from engine, boiler and incinerator operations also affect air quality.

Waste streams generated by marine vessels, including cruise ships, are primarily regulated under the statutes of the Clean Water Act and international laws. The United States also participates in four international organizations dedicated to the implementation of safe and environmentally friendly maritime operations which affect the cruise line industry to varying degrees.

Environmental Compliance and Discharge Incidents

The GAO study reported that all 12 cruise line companies had an environmental compliance and waste management plan in place, and were certified by 1998 according to the requirements of the International Maritime Organization (IMO) International Safety Management Code. The 8 largest cruise line companies in the survey have “zero

discharge” policy and actively pursue source reduction and recycling practices. The GAO survey revealed that environmental management practices by the 4 smaller cruise line companies of the survey were less extensive. In spite of these environmental compliance advances the cruise line industry was not without pollution incidents.

The GAO report disclosed that between 1993 and 1998, cruise liners were involved in 87 pollution violations, or approximately 4 percent of the total marine vessel pollution incidents ranging from the discharge of oily waste and fuel to the discharge of solid waste and paint. The Coast Guard actions ranged from issuing warnings to levying civil penalties up to \$17,500, with an average fine of approximately \$2000. The consequences of a discharge incident depend on a variety of factors such as the intention of the release (willful or accidental), type and quantity of substance involved in the release incident and jurisdiction over the water body where the incident took place. The full force of U.S. law applies within 3 nautical miles from the United States shorelines with the exception of foreign vessels in “innocent passage”. Based on Coast Guard and third party reports, 17 discharge incidents were observed outside U. S. waters. These cases were reported to the countries where the cruise ships were registered.

The Department of Justice handled 10 aggregate cases of criminal pollution incidents between 1993-1998 involving 22 cruise ships. These incidents included knowing and negligent discharge of oily substances, garbage, and plastic waste, bypassing pollution control equipment and falsifying records. The largest criminal prosecution case resulted in \$18 million fine.

Challenges Ahead

In July, 2001 Alaska implemented a bill requiring cruise ships carrying 50 or more passengers to monitor water, solid waste, and air emissions. The bill established a \$1 per passenger fee for funding the enforcement of the bill. By pursuing a proactive stance to improve environmental best management practices the cruise line industry can further prevent and reduce its share of pollution incidents, improve its public image and possibly lessen the regulatory burden.

To reduce shipboard air emissions is becoming a growing challenge, especially in Alaska where 7 cruise lines were cited for violating the state’s air quality rules during the past 2 years (p. 37, Pacific Maritime Magazine, January, 2002).

Biography

Zoltan C. Mester, Ph. D. is an environmental and engineering consultant for the marine, petroleum, and chemical industry. Dr. Mester can be reached at (949) 495-9513 or at www.environmentalconsultation.com