

# Ballast Water Management

## Federal Action Should Prevent the Introduction of Non-Indigenous Aquatic Species from Ballast Water

### What Is Ballast Water?

An oceangoing ship uses ballast water to maintain its stability, balance and structural strength. In general, a vessel takes on ballast water as it unloads cargo and discharges ballast water as it loads cargo. In addition, a vessel may take on ballast water as it enters a harbor to safely pass under bridges and discharges ballast to safely cross shoals on the bottom of the waterway. Ballast water is essential to the safe and efficient operation of oceangoing shipping.

### Why Is Ballast Water of Concern?

Non-indigenous species are a growing problem throughout the United States. Through a number of transmission methods, various types of plant life, insects, animals and other organisms (such as microbes) have been introduced into unprepared environments and some have caused economic or environmental harm.

Non-native aquatic species may be carried in the ballast water of international oceangoing vessels. More than 99 percent of U.S. overseas trade (by weight) is moved by ship. The marine environment is vulnerable to non-indigenous species being carried in ships' ballast water. This includes anything that is small enough to pass through a ship's ballast water intake ports and pumps, such as small invertebrates and the eggs, cysts and larvae of various species, as well as bacteria and other microbes.

Because oceangoing vessels generally transit internationally, the transmission of aquatic species by ballast water is a global concern that

requires an international solution and federal legislation. AAPA has been an active member of the Shipping Industry Ballast Water Coalition, which represents the full spectrum of ocean carriers, as well as U.S. ports and maritime labor. The Coalition has advocated the development and implementation of a national ballast water management program that sets discharge standards consistent with those contained in the convention recently approved by the member countries of the International Maritime Organization (IMO).

### What is Being Done to Manage Ballast Water?

International: In 1997, the member countries of the IMO adopted voluntary ballast water management guidelines to minimize the risk of spreading aquatic nuisance species. The guidelines recommend that vessels exchange ballast water collected in coastal waters with mid-ocean water, which contains fewer organisms that can survive in coastal environments. In February 2004, the member countries of the IMO adopted a binding international agreement for mandatory ballast water management, which mandates a ballast water discharge standard (to be achieved through shipboard treatment) and will replace the previous voluntary guidelines. While this treaty must be ratified by a sufficient number of countries to enter into force, the agreement to forward it for ratification marks the end of a 10-year process to develop an appropriate international regulatory framework.

U.S. Federal Government: In 1990, Congress directed the U.S. Coast Guard (USCG) to establish a mandatory ballast water management

program for vessels entering the Great Lakes and the Hudson River. In 1996, Congress further directed the USCG to establish a nationwide ballast water management program that included a voluntary mid-ocean exchange and mandatory reporting. In July 2004, the USCG issued a final rule, making the voluntary program a mandatory program, effective September 2004. Unfortunately, the USCG has not yet mandated a ballast water discharge standard, and the agency is exploring options for ballast water treatment through technology.

States: Legislatures in the states of California, Hawaii, Maryland, Michigan, Oregon, Virginia and Washington have enacted laws within the last several years addressing ballast water discharges. These laws vary greatly from state to state. Some are essentially equivalent to the USCG's program, with additional requirements for submitting ballast water reports to the state (e.g., Virginia and Maryland), while others are much more stringent than the USCG's program (e.g., California, Michigan and Washington).

### **What Needs to Be Done to Improve Ballast Water Management?**

IMO Treaty Ratification. **The United States should ratify the IMO ballast water treaty.** The IMO treaty represents the work product of ten years of consensus-building internationally. The United States should ratify the treaty and urge other countries to do so as well.

Ballast Water Treatment Standard. **The United States should adopt an initial ballast water discharge standard consistent with the standard contained in the treaty.** This standard should be subject to the same pre-implementation review process outlined in the treaty, which will adjust the standard after taking into account the availability of new treatment technologies and additional data collected during technology demonstration projects.

Federal Preemption of State Regulation. **The Congress should explicitly preempt state regulation of ballast water discharges from vessels.** Widely varying state and local requirements for the operation of vessels involved in international or interstate trade can adversely affect the competitiveness of the U.S. port industry and create compliance challenges for the commercial shipping industry. Only a strong national and international ballast water management program will assure prevention of the introduction of non-indigenous aquatic species into state waters.

Federal Exclusivity. **Congress should ensure that any law it passes to establish a mandatory ballast water management standard is the supreme federal law governing ballast water.** By contrast, environmental

groups have argued, as part of litigation in U.S. District Court, that ballast water should be regulated as a discharge under the Clean Water Act's NPDES program. Congress should make clear that any regulation promulgated by the Coast Guard as a result of the enactment of legislation should be the primary statute governing ballast water.

Certification of Ballast Water Management Technologies and Practices. **The United States should adequately fund a scientifically valid and defensible experimental shipboard testing program for ballast water management technologies and practices,** which can lead to the certification of technologies and practices for wide-scale use. The Shipboard Technology Evaluation Program, managed by the U.S. Coast Guard, offers the potential for experimental shipboard testing for ballast water management technologies, and Congress should provide adequate funding for this program.

### **What Is the Port Industry Doing to Improve Ballast Water Management?**

The port industry is working closely with the U.S. Coast Guard and other interested groups to promote effective policies for ballast water management. It also participates in negotiations at the IMO on an international ballast water management agreement.

U.S. and Canadian Great Lakes ports have joined together to create the Great Ships Initiative. This initiative brings together federal partners, such as the National Oceanic and Atmospheric Administration and the Maritime Administration and private interests, such as the National Fish and Wildlife Foundation and the Northeast-Midwest Institute. The initiative is working with the University of Wisconsin-Superior to create a ballast treatment technology research and development center. Additionally, many individual Great Lakes ports are working to find solutions.

Individual port authorities are advancing the state of the art in ballast water management technology and practices. For example, the Maryland Port Administration is working with the University of Maryland to conduct shipboard experiments of ultraviolet light in combination with organic biocides. The Port of Oakland partnered with the Smithsonian Environmental Research Center to conduct a study that evaluated the transfer of species from container ships and estimated the efficacy of ballast water exchange as a treatment method.

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