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Ms. Stephanie Sanzone
Science Advisory Board
U.S. Environmental Protection Agency
(Mailcode 1400R)
1200 Pennsylvania Avenue, NW
Washington, DC 20460-4164

Re: *Efficacy of ballast water treatment systems; A Report by the EPA Science Advisory Board (May 2011 Draft)*

Dear Ms. Sanzone:

On behalf of the American Waterways Operators (AWO), the national trade association for the tugboat, towboat and barge industry, thank you for the opportunity to comment on the draft report of the U.S. Environmental Protection Agency Science Advisory Board's (SAB) Ecological Processes and Effects Committee Augmented for the Ballast Water Advisory, titled *Efficacy of ballast water treatment systems; A Report by the EPA Science Advisory Board*.

The tugboat, towboat and barge industry is the largest segment of the U.S.-flag domestic fleet, operating more than 4,000 towing vessels and 27,000 barges that annually move more than 800 million tons of cargo in the domestic commerce of the United States. AWO's 350 member companies account for approximately 80 percent of the barge tonnage and two-thirds of the towing vessel horsepower in this critical industry segment, moving grain, coal, petroleum products, chemicals, steel, aggregates and containers on the U.S. inland and intracoastal waterways; the Atlantic, Pacific and Gulf coasts; and the Great Lakes. Tugboats also provide essential services, including shipdocking, tanker escort and bunkering, in ports and harbors around the country.

AWO members are proud to be part of an industry that is the safest and most fuel-efficient, and has the smallest carbon footprint, of any surface transportation mode. We are deeply committed to building on the natural advantages of marine transportation and leading the development of higher standards of marine safety and environmental protection. More than 16 years ago, AWO became the first transportation trade association to adopt a code of safe practice and environmental stewardship for member companies. Today, third-party-audited

compliance with the AWO Responsible Carrier Program is a condition of membership in AWO.

AWO is also a member of the Shipping Industry Ballast Water Coalition, an alliance of maritime trade associations that, together, represent over 90 percent of all vessels calling at U.S. ports, in both the domestic and international trades. The coalition is committed to working with legislators, regulators and environmental groups to develop environmentally sound and economically practicable solutions to prevent the introduction and spread of invasive species in U.S. waters.

This history and these organizational characteristics inform our view of the SAB's draft report. We seek to protect the marine environment in which our vessels operate, to provide a practicable regulatory framework that allows the continued safe and efficient movement of essential maritime commerce and to ensure that impracticable or overly burdensome regulations do not result in the diversion of cargo to other transportation modes that pose increased risks to safety and the environment.

AWO strongly believes that a review of existing shipboard treatment technologies must consider whether those ballast water management systems (BWMS) are practicable for every class of vessel on which they may be required. Therefore, AWO appreciates the SAB's discussion, in section 4.8 of the draft report, of factors beyond mechanical and biological efficacy that can influence BWMS performance, such as vessel type and vessel operations. AWO was particularly pleased by the panel's recognition of the "significant logistical challenges" posed by the application of BWMS on unmanned barges. The SAB correctly notes that these vessels "commonly use ballast tanks or fill cargo spaces with water for trim and stability, or to prevent excessive motions in heavy seas," but "typically do not have their own source of power or ballast pumps and are unmanned" (p. 51).

The technological feasibility of BWMS installation on vessels of varying types and engaged in a range of services is an important consideration. Systems must also be tested and proven practicable given those vessels' engine room size and design, ballast water capacity, tank configuration, flow rate and other characteristics. While the draft report discusses the difficulties inherent in addressing the large volumes and flow rates of ballast water of some ships, the relatively small size of towing vessels presents its own problems.

For example, many towing vessels are less than 125 feet long, with small engine rooms averaging between 900 and 1,300 square feet. While treatment systems range in size, one of the smallest would occupy about one-tenth of that space. In a towing vessel engine room, there is virtually no space not already dedicated to machinery or walkways. Keeping these areas clear and leaving enough room for engineers to maintain the existing equipment is critical to the safe operation of the vessel. Moreover, since ballast water treatment systems have not been tested on tugboats or towboats, it is unclear whether or not their installation is even possible on vessels of such small size.

Additionally, the ballast water flow rates of some tugboats are as low as 20 gallons per minute, and average flow rates for typical towing vessels are approximately 250 gallons per minute. Vessels with low flow rates must install additional pumps in order to ensure that

the system will work effectively. It has not been demonstrated whether treatment systems employing additional pumps are feasible for installation on barges or towing vessels.

AWO would like to point out that the SAB's finding that BWMS exist to meet the International Maritime Organization (IMO) D-2 standard/U.S. Coast Guard Phase 1 standard is not confirmation that those systems can be feasibly installed on all vessels. AWO is not aware of any BWMS that has been approved for, installed or even tested on vessels with the operating characteristics of many tugboats, towboats and barges. Further, the fact that some treatment systems are capable of meeting the IMO D-2 standard does not mean that they are on the market and available in sufficient quantity to allow for purchase and installation by the population of affected vessels, or safe or cost-effective for use on the vessels that may be required to use them.

Again, thank you for the opportunity to comment on this draft report. We would be pleased to answer any questions of provide further information as the Panel sees fit.

Sincerely,

Caitlyn E. Stewart