TESTIMONY OF
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Good morning, Chairman Gibbs, Chairman LoBiondo, Ranking Members Bishop and Larsen, and members of the Subcommittees. I am James A. Hanlon, the Director of the Office of Wastewater Management in the Office of Water at the U.S. Environmental Protection Agency (EPA). Thank you for the opportunity to discuss EPA's regulation of ballast water discharges from vessels under the Clean Water Act's National Pollutant Discharge Elimination System (NPDES). My testimony will provide an update on our current activities with respect to regulating ballast water under the Vessel General Permit (VGP), including the role the recent National Academy of Sciences (NAS) and EPA Science Advisory Board (SAB) reports will play in the development of the ballast water provisions for the next iteration of that permit. I will also briefly discuss some of EPA's activities to improve our understanding of ballast water discharges and how they might be controlled; work conducted in close cooperation with our colleagues in the Coast Guard.

Aquatic Nuisance Species (ANS) introductions contribute to the loss of marine biodiversity and have associated significant social, economic, and biological impacts. Economic costs from invasions of ANS range in the billions of dollars annually. The Administration is deeply concerned about the environmental and economic impacts that can result from the introduction of aquatic nuisance species into U.S. waters. In particular, the Coast Guard and EPA have worked very closely over the past several years to develop a strong federal ballast water management program which will reduce the risk of new introductions. It is important to note that the Coast Guard and EPA are implementing different laws (Non-indigenous Aquatic Nuisance Prevention and Control Act (NANPCA), as amended by the National Invasive Species Act (NISA), for the Coast Guard and the Clean Water Act (CWA) for the EPA). In administering our respective authorities, the Coast Guard and EPA have worked closely to harmonize, as appropriate, the proposed Coast Guard ballast water discharge standard regulations and the EPA Vessel General Permit (VGP). The Coast Guard has been a trusted and valuable partner in the EPA's ballast water activities, and we would not have made the significant progress to date without their expertise and cooperation.

Vessel General Permit background

By way of background, on March 30, 2005, the U.S. District Court for the Northern District of California (in Northwest Environmental Advocates et al. v. EPA) ruled that EPA's long-standing regulatory exclusion for discharges incidental to the normal operation of a vessel from NPDES permitting exceeded the Agency's authority under the CWA. The focus of the case was the

significant impact of ANS introduced by ballast water discharges from ships making transoceanic voyages. Section 301(a) of the CWA generally prohibits the discharge of a pollutant without an NPDES permit, and as of the February 2009 date of the vessel exclusion rule vacatur, vessels would not be able to discharge ballast water in U.S. waters without NPDES permit coverage. In response to the court vacatur, EPA issued the VGP in December of 2008 to regulate incidental discharges from vessels, such as ballast water.

As you are aware, Congress passed and the President signed two laws in the summer of 2008 which narrowed the scope of the NPDES permit requirement for vessel discharges. The first law, the Clean Boating Act (Public Law 110-288), exempted recreational vessels from the requirement to obtain an NPDES permit for their incidental discharges and directed EPA and the Coast Guard to develop uniform national regulations for such discharges under Section 312 of the CWA. EPA anticipates proposing management practices for appropriate discharges from recreational vessels in 2012. The second law, (Public Law 110-299), generally imposed a two-year moratorium on NPDES permitting requirements for commercial vessels less than 79 feet and commercial fishing vessels regardless of size, except for their ballast water discharges. This moratorium was subsequently extended to December 18, 2013 by Public Law 111-215. In addition, that law directed EPA to conduct a study of vessel discharges and issue a report to Congress. EPA finalized this Report to Congress, entitled "Study of Discharges Incidental to Normal Operation of Commercial Fishing Vessels and Other Non-Recreational Vessels Less Than 79 Feet" in August 2010.

The current Vessel General Permit

The 2008 VGP regulates approximately 69,000 domestic and foreign vessels, which are subject to the permit's requirements while in U.S. waters. Without coverage under the VGP, owners/operators could face penalties for violating the CWA's prohibition against the discharge of a pollutant without a permit.

In developing ballast water limits for the 2008 VGP, EPA considered limits based on both the technology available to treat the pollutants (i.e., technology-based effluent limits), and limits that are protective of water quality (i.e., water quality-based effluent limits). The CWA requires that all point source discharges must meet technology-based effluent limitations representing the applicable levels of technology-based control (e.g., best available technology economically achievable (BAT)). Water quality-based limits are required as necessary where the technology-based limits are not sufficient to meet applicable water quality standards.

For the 2008 VGP, EPA found that it was infeasible to calculate numeric technology-based limits for ballast water discharges, and thus the current permit contains Best Management Practices (BMPs) that permittees must employ, such as ballast water exchange and saltwater flushing. The 2008 VGP incorporates all of the Coast Guard's mandatory ballast water management and exchange standards, and offers increased environmental protection with several additional requirements, such as requiring U.S.-bound vessels with empty ballast water tanks to conduct

saltwater flushing, and mandating ballast water exchange for vessels engaged in Pacific nearshore voyages that have taken on ballast water in areas less than 50 nautical miles from shore. The VGP also includes a narrative water quality-based effluent limit which requires permittees to control discharges as necessary to meet applicable water quality standards.

Clean Water Act Section 401 certification provisions of the 2008 Vessel General Permit

Under Section 401 of the CWA, EPA may not issue a permit until a certification is granted or waived in accordance with that section by the State in which the discharge originates or will originate. Because the VGP applies nationwide, EPA sought 401 certifications from all 50 states, as well as territories and authorized Tribes. Part 6 of the VGP identifies additional requirements provided to EPA by States and Tribes in their 401 certifications that the States and Tribes deemed necessary to assure compliance with applicable provisions of the CWA and any other appropriate requirements of State and Tribal law. Pursuant to CWA Section 401(d), EPA has attached those State and Tribal provisions to the VGP. Those provisions that constitute effluent or other limitations or monitoring requirements are enforceable conditions as part of the federal permit. Ten states have additional ballast water requirements in the VGP that were submitted in their 401 certifications.

Development of the next Vessel General Permit's ballast water provisions

The current VGP expires on December 19, 2013. EPA plans on proposing for public comment a draft of the next VGP in November of this year. We are then seeking to finalize the permit in November of next year (2012) so that vessel owners and operators will have time to plan for and implement any new permit conditions.

In order to further our scientific understanding of the state of ballast water science, EPA and the Coast Guard sought advice from EPA's Science Advisory Board on the performance and availability of ballast water treatment technologies. EPA and the Coast Guard also commissioned a report from the National Academy of Sciences to inform our understanding of the relationship between the concentration of living organisms in ballast water and the likelihood of nonindigenous organisms successfully establishing populations in U.S. waters.

EPA's primary purpose in requesting the NAS and SAB reports is to provide expert input and advice regarding: (1) the derivation of numeric effluent limits for ballast water, and (2) the status and availability of ballast water treatment technologies.

SAB and NAS report conclusions and how EPA will use them

The SAB found that systems currently exist to meet the International Maritime Organization (IMO) standard[1], and some of those systems may achieve a limit 10 times the IMO standard. However, due to the detection limitations of current monitoring technology and approaches,

[1] The IMO standard sets maximum permissible limits on live organisms in ballast effluent, based on the size or taxonomic category of organisms, and states that ships conducting ballast water management shall discharge:

- "Less than 10 viable organisms per m^3, for greater than or equal to 50 µm in minimum dimension;
- Less than 10 viable organisms per ml, for less than 50 µm in minimum dimension and greater than or equal to 10 µm in minimum dimension; and
- Discharge of the indicator microbes shall not exceed the specified concentrations. The indicator microbes, as a human health standard, include, but are not limited to:
    - Toxicogenic *Vibrio cholerae* (O1 and O139) with less than 1 colony forming unit (CFU) per 100 ml or less than 1 CFU per 1 gram (wet weight) zooplankton samples;
    - *Escherichia coli* with less than 250 CFU per 100 ml;
    - Intestinal enterococci with less than 100 CFU per 100 ml."

the SAB could not definitively determine whether systems could meet this more stringent limit. The SAB also found it unlikely that treatment systems, which attain a limit of 100 times or 1000 times more stringent than IMO standards, exist today. EPA will use the results of this SAB study to inform our technology-based effluent limits in the 2012 VGP.

The NAS report identified the strengths and weaknesses of existing approaches in evaluating risk from ballast water discharges and made recommendations on how to improve our future scientific understanding of this risk. The report also recommended that a benchmark discharge standard should be established that clearly reduces concentrations of coastal organisms below current levels resulting from ballast water exchange (such as the IMO D-2 standard). EPA will use the results of this study to inform development of our water quality-based effluent limits in the 2012 VGP. Furthermore, EPA will work with our federal partners to implement the recommendations of the panel for improving our understanding of the risk posed by ballast water in the future where feasible.

Clean Water Act Section 401 certification provisions in the 2012 Vessel General Permit

Several of the State 401 certifications of the 2008 VGP created different state-specific requirements for discharges into the waters of those states. In developing the 2012 VGP, EPA plans to provide a clearinghouse of information and other tools to track the development of each State's 401 conditions. In addition, one of the reasons EPA commissioned the SAB and NAS studies was to provide the most helpful syntheses of available scientific information so that

the States could use the same information sources as EPA when they develop their 401 conditions.

EPA and Coast Guard Collaboration

As I previously mentioned, EPA is fortunate to have strong federal partners in mitigating the threat posed by ballast water discharges. In February 2011, EPA and the Coast Guard signed a Memorandum of Understanding (MOU) that sets up a cooperative inspection regime for the VGP. Under the MOU, the Coast Guard has agreed to incorporate components of EPA's VGP into its existing inspection protocols and procedures to help the United States address vessel pollution in U.S. waters in a more comprehensive manner. The MOU creates a framework for improving EPA and Coast Guard cooperation on data tracking, training, monitoring, enforcement and industry outreach. The agencies have also agreed to improve existing data requirements so that information on potential VGP violations observed during inspections can be sent to EPA for evaluation and follow-up.

Furthermore, to address the challenges associated with assessing the efficacy of ballast water treatment systems, EPA also collaborated with the Coast Guard, and recently finalized new Environmental Technology Verification (ETV) protocols for sampling and evaluating ballast water discharges from land based testing facilities entitled the "Generic Protocol for the Verification of Ballast Water Treatment Technology." The ETV program verifies the performance of innovative technologies that have the potential to improve protection of human health and the environment. Using these updated protocols, U.S. government agencies

and others will be able to gain a much better understanding of the efficacy of ballast water treatment technologies, and we will be able to improve our understanding of how these systems function.

Conclusion

EPA and the Coast Guard will continue to work closely in the future to minimize the risk of introduction and spread of aquatic nuisance species. This cooperative effort, augmented with other Federal expertise, provides substantial opportunities going forward for enhanced communication, coordination of Federal activities, and engagement with external stakeholders to develop and implement a strong, national ballast water management program.

Once again, Chairmen Gibbs and LoBiondo and Members of both Subcommittees, thank you for the opportunity to discuss EPA's ballast water related activities and I look forward to answering any questions you may have.