TESTIMONY OF
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Good morning, Chairman LoBiondo, Ranking Member Larsen, and members of the Subcommittee. 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 the EPA's regulation of vessel discharges under the Clean Water Act (CWA)'s National Pollutant Discharge Elimination System (NPDES) program. My testimony will provide an update on our regulation of vessel discharges, including ballast water, under the current 2008 Vessel General Permit (VGP), and implementation of that permit. I will also discuss the draft 2013 VGP that was published for public comment in December 2011, highlight some of the proposed improvements that the draft VGP would make to the existing VGP, and discuss the regulation of ballast water discharges by the draft VGP and the Coast Guard's final rule. Lastly, I will provide background and an overview of the draft small Vessel General Permit (sVGP), which was also published for comment in December.

In addition, in light of your expressed interest, my written testimony also includes a discussion, on behalf of the EPA's Office of Air and Radiation, on the Emission Control Area for the Coastal regions of the United States and Canada, which is a subject matter outside of my area of responsibility and expertise.

Vessel General Permit (VGP) 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 the EPA's long-standing regulatory exclusion from NPDES permitting for discharges incidental to the normal operation of a vessel exceeded the agency's authority under the CWA. While the focus of the case involved the significant impact of aquatic nuisance species (ANS) introduced by ballast water discharges from ships making transoceanic voyages, the district court vacated the vessel incidental discharge exclusion in its entirety. Section 301(a) of the CWA generally prohibits the discharge of a pollutant without an NPDES permit. So after the district court's vacatur, which ultimately went into effect on February 6, 2009, vessels would not have been able to discharge ballast water or other incidental discharges in waters of the U.S. without NPDES permit authorization. Following an unsuccessful appeal of the District Court's decision to the U.S. Court of Appeals for the Ninth Circuit, the EPA issued the current VGP in December of 2008 to regulate and authorize incidental discharges from vessels, such as ballast water.

The 2008 VGP

The current VGP authorizes discharges from approximately 70,000 domestic and foreign vessels, which are subject to the permit's requirements while in waters of the U.S., including the three mile territorial sea and inland waters, and applies to all non-military, non-recreational vessels greater than or equal to 79 feet in length. The ballast water discharge provisions also apply to any non-military, non-recreational vessels less than 79 feet in length or commercial fishing vessels of any size that discharge ballast water.

The current VGP expires on December 19, 2013. It regulates discharges incidental to the normal operation of vessels operating in a capacity as a means of transportation. The VGP includes general effluent limits applicable to 26 specific discharge streams; narrative water quality-based effluent limits; inspection, monitoring, recordkeeping, and reporting requirements; and additional requirements applicable to certain vessel types. The effluent limits are primarily in the form of Best Management Practices (BMPs), which were developed based upon standard industry practices that were already being performed on vessels.

With respect to ballast water, the 2008 VGP incorporated all of the Coast Guard's mandatory ballast water management and exchange requirements, 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 that requires permittees to control discharges as necessary to meet applicable water quality standards. In addition, the permit also contains any more stringent conditions imposed by the states under the CWA section 401 certification process.

Implementation and Enforcement of the VGP

The VGP requires that vessel owners and operators assure that vessel discharges meet effluent limits and related requirements; perform a corrective action process for fixing permit violations; and includes requirements for inspections, monitoring, recordkeeping and reporting. These provisions have been successfully implemented by permittees over the past three years,

resulting in environmental improvements, and have also enabled the EPA to propose improvements in the next iteration of the VGP by refining the permit's requirements to better reflect existing vessel practices. For instance, the EPA used information received from the approximately 50,000 Notices of Intent to be covered by the VGP submitted by permittees and other sources of information in order to update permit conditions in a manner that minimizes burden on permittees.

The EPA is fortunate to have strong federal partners in mitigating the threat posed by ballast water discharges, especially the Coast Guard, with whom we carefully coordinate on a range of technical and programmatic activities related to vessel discharges. With respect to compliance monitoring, in February 2011, the EPA and the Coast Guard signed a Memorandum of Understanding (MOU) that set up a cooperative federal inspection regime for the VGP. Under the MOU, the Coast Guard has incorporated components of the EPA's VGP into its existing inspection protocols and procedures so that the United States identifies potential violations of the permit and vessel pollution in U.S. waters in an effective and efficient manner. The MOU creates a framework for improving EPA and Coast Guard collaboration on data tracking, training, compliance monitoring, enforcement and industry outreach. As a result of the MOU, there is a regular exchange of information regarding potential violations.

It is also important to note the critical role that the Saint Lawrence Seaway Development Corporation (the Seaway) has played in developing and implementing effective ballast water programs for vessels entering the Great Lakes. In 2008, the Seaway was the first US federal government entity to mandate saltwater flushing for vessels entering the Great Lakes from

outside the U.S. Exclusive Economic Zone (EEZ). Additionally, the Seaway, in partnership with the Coast Guard and our Canadian partners, implements a 100% inspection regime for all applicable vessels entering the Lakes to assure that they have conducted ballast water exchange or saltwater flushing. Finally, the Seaway continues to play a leadership role in facilitating communication between various stakeholders in the Great Lakes, including the states, to ensure effective ballast water regulation of vessels entering the Great Lakes. Based in part on these efforts, we believe that the Great Lakes have been better protected from invasive species over the last five years, and we look forward to the Seaway's continuing role in effectively implementing ballast water requirements for vessels entering the Lakes.

The Draft VGP

The recent draft VGP covers the same universe of approximately 70,000 vessels as the current permit. The permit would continue to regulate the 26 specific discharge categories that were contained in the 2008 permit and would, for the first time, impose conditions on the discharge of fish hold effluent from fishing vessels.

We received approximately 5,500 comments on the draft VGP during the 75-day public comment period that ended on February 21st of this year. We are currently in the process of reviewing and considering these comments, and will make changes to the draft permit as appropriate. Although the draft permit would have an effective date of December 19, 2013, which is the expiration date of the current VGP, we plan to finalize the permit in November of this year so that vessel owners and operators will have time to plan for and implement any new permit conditions. In developing the draft permit, we focused on increasing environmental

protection based on sound science, ensuring vessel safety and minimizing burden for permittees with common-sense and easy-to-implement provisions.

The draft permit would reduce the administrative burden for vessel owners and operators in several ways, such as eliminating duplicative reporting requirements, clarifying that electronic recordkeeping may be used instead of paper records and streamlining self-inspection requirements for vessels that are out of service for extended periods. The draft VGP also would increase environmental protection with provisions for mechanical systems that may leak lubricants into the water and for exhaust gas scrubber washwater, which would reduce the amount of oil and other pollutants that enter U.S. waters. The EPA also took comment on potentially more stringent requirements for bilgewater discharges.

Several of the state 401 certifications in the 2008 VGP created different state-specific requirements for discharges into the waters of those states. To help facilitate greater consistency, in developing the new VGP, the EPA is providing a clearinghouse of information and other tools to help track the development of each state's 401 conditions and is fostering coordination between the states.

Development of Ballast Water Provisions in the Draft VGP

In developing ballast water limits for both the current VGP and the new draft VGP, the 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). In order to further our scientific understanding of the state of ballast water science, the EPA, with assistance from the Coast Guard, sought advice from the

EPA's Science Advisory Board (SAB) on the performance and availability of ballast water treatment technologies. The EPA, again with the Coast Guard's help, also commissioned a report from the National Academy of Sciences (NAS) 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. The EPA's primary purpose in requesting the NAS and SAB reports was to obtain expert input and advice regarding: (1) the derivation of environmentally sound numeric effluent limits for ballast water, and (2) the status and availability of ballast water treatment technologies.

The EPA used the results of these studies to inform the discharge limits in the draft VGP, which are generally consistent with those contained in both the International Maritime Organization's 2004 Ballast Water Management Convention ("IMO Convention") and the final Coast Guard ballast water rule. In proposing these limits, the EPA concluded that they would be expected to substantially reduce the risk of introduction and establishment of non-indigenous invasive species in waters of the U.S. via ballast water discharges.

The limits would apply to ballast water discharges from non-military, non-recreational vessels greater than or equal to 79 feet in length that have a ballast water capacity of at least eight cubic meters. The draft permit proposed that the limits be phased in over time during a timeframe that mirrors the IMO Convention's implementation schedule.

Ballast Water Discharge Limits: Comparing the Draft VGP and the Coast Guard's Final Rule

As I discussed in my July 2011 testimony before this Subcommittee, the Administration is deeply concerned about the environmental and economic impacts that can result from the

introduction of ANS into U.S. waters. ANS introductions contribute to the loss of aquatic biodiversity and existing ANS introductions have caused significant social, economic, and biological impacts. Economic costs from invasions of ANS range in the billions of dollars annually. To help prevent future ANS introductions and the significant impacts they cause, the Coast Guard and the EPA have worked very closely over the past several years to develop a strong federal ballast water management program that will reduce the risk of new introductions. In administering our respective authorities, the Coast Guard and the EPA have worked closely to harmonize, as appropriate, the final Coast Guard ballast water discharge standard regulations and the EPA's draft VGP. We plan to continue this collaboration as the EPA moves towards finalization of the draft VGP.

It is important to note that the Coast Guard and the EPA are implementing different laws. The Coast Guard implements the Non-indigenous Aquatic Nuisance Prevention and Control Act (NANPCA), as amended by the National Invasive Species Act (NISA), and the EPA implements the CWA. The EPA's draft VGP and the Coast Guard's requirements are generally aligned – a result of the agencies' strong working relationship. As a result of this relationship, our agencies each have a similar understanding of the technological and ecological factors associated with ballast water discharges, their treatment and their impacts. As the EPA works to finalize the draft VGP, we will continue to work closely with the Coast Guard.

As the Coast Guard noted in its final rule preamble, the draft VGP proposes to apply numeric treatment limits for ballast water discharges to a broader class of vessels than the Coast Guard's final rule. Like the current VGP, in order to fulfill the CWA's statutory mandates, the

draft VGP proposes some requirements that are broader in applicability, would prescribe additional management requirements, and would require additional monitoring or other quality control requirements beyond those in the Coast Guard's final rule. The EPA must consider the information in its draft VGP record, including public comments received, as well as the requirements of the CWA, as it finalizes the draft VGP. Therefore, it is possible that the new final VGP, like the proposed VGP, will add to the requirements found in the Coast Guard's final rule.

I'd like to highlight a couple of areas in which the draft VGP differs from the rule that was recently finalized by the Coast Guard.

The draft VGP would require non-military, non-recreational vessels with at least 8 cubic meters of ballast water capacity, including inland vessels, to meet the numeric ballast water discharge limits. The Coast Guard's final rule applies the numeric standard only to seagoing vessels that voyage outside the EEZ regardless of size, and to coastwise vessels that do not operate outside the EEZ and are greater than 1,600 Gross Register Tons.

For vessels that operate on the Great Lakes, the draft VGP would require ballast water discharges from oceangoing vessels that enter the Great Lakes to comply with the numeric ballast water limits, consistent with the Coast Guard's final rule. In addition, the draft VGP would require compliance with numeric ballast water discharge limits for vessels that engage in both trade in the Great Lakes and travel in and out of the Great Lakes via the St. Lawrence Seaway, but, which do not leave the Exclusive Economic Zone. This is because the EPA determined that technologies are available and economically achievable for use by those

vessels. Existing vessels that operate exclusively in the Great Lakes upstream of the Welland Canal (which are too large to exit the Great Lakes via the St. Lawrence Seaway and are thus confined to the upper Great Lakes) would be required to implement BMPs to control their ballast water discharges instead of meeting the numeric limits because the EPA determined that technologies are not available for such vessels. EPA continues to evaluate its preliminary determinations made in the draft permit regarding best available technology and water quality requirements based on comments received and other information before it in the record.

The EPA has also proposed in the draft VGP to continue existing ballast water exchange practices as water quality-based effluent limits for certain vessels entering the Great Lakes. In addition to meeting the numeric discharge standards in the draft permit, vessels that enter the Great Lakes after operating beyond the EEZ would be required to continue to conduct mid-ocean ballast water exchange when they have taken on ballast water from a non-Great Lakes freshwater or brackish water port in the previous month. The purpose of this proposed requirement, which is not included in the Coast Guard's final rule, would be to add another measure of protection against invasive species by reducing the compatibility of water from source and recipient regions when freshwater or brackish water is transported via ballast tanks into the Great Lakes, thus reducing the possibility that viable populations of invasive species will be introduced. Due to this environmental mismatch, in addition to removal by treatment, any remaining freshwater species being taken up in the ship's ballast in fresh or brackish waters would either be discharged into the open ocean and/or shocked by saline water during ballast water exchange before being discharged into the freshwater of the Great Lakes. The EPA proposed this additional measure for the Great Lakes, a unique and valuable resource, based on

a recognition that those water bodies have been particularly impacted by the introduction of various invasive species. EPA has requested comment and data on whether to include this provision in the final permit.

Finally, with respect to vessels that are undergoing construction (so-called "new builds"), the draft VGP proposed applying the numeric ballast water discharge limits to new builds constructed on or after January 1, 2012 as of the effective date of the permit, while the Coast Guard final rule applies the limits to new builds constructed on or after December 1, 2013. The draft VGP was published before the final Coast Guard rule, and the draft VGP new build requirements were consistent with both with the Coast Guard's 2009 proposed rule as well as the 2004 IMO ballast water treaty. We are currently reviewing comments received and are evaluating what requirements for new builds would be appropriate to include in the final VGP.

The Small Vessel General Permit (sVGP)

As you are aware, Congress passed and the President signed two laws in the summer of 2008 that narrowed the scope of the NPDES permit requirement for incidental 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 the EPA and the Coast Guard to develop uniform national regulations for such discharges under Section 312 of the CWA. 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, Public Law 110-299 directed the EPA to conduct a study of vessel discharges and issue a report to Congress. The 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 EPA proposed the sVGP to provide CWA permit authorization for commercial vessels less than 79 feet and commercial fishing vessels regardless of size when the moratorium expires next year. Section 301(a) of the CWA generally prohibits the discharge of a pollutant without an NPDES permit, and as of the December 2013 expiration date of the moratorium, the affected vessels would be prohibited from discharging in waters of the U.S. without NPDES permit coverage.

We estimate that between 118,000 and 138,000 vessels could be subject to the sVGP's requirements. In comparison, the draft VGP would cover about 2,200 commercial fishing vessels that are greater than 79 feet in length. Without coverage under the sVGP, owners/operators could face penalties for violating the CWA's prohibition against the discharge of a pollutant without a permit. Hence, the EPA proposed the draft sVGP to provide the most administratively efficient permit possible consistent with our regulations. As currently proposed, if the owner or operator of a vessel less than 79 feet believes the sVGP to be inappropriate for their vessel, they may seek coverage under the VGP or an individual NPDES permit.

This sVGP would be the first under the CWA to specifically address discharges incidental to the normal operation of commercial vessels less than 79 feet in length. Recognizing that small commercial vessels are substantially different in how they operate than their larger

counterparts, the draft sVGP is shorter and simpler than the VGP. The draft permit specifies BMPs for several broad discharge management categories including: fuel management, engine and oil control, solid and liquid maintenance, graywater management, fish hold effluent management and ballast water management. These BMPs include common sense management measures to reduce environmental impacts from these discharges, including measures to reduce the risk of spreading invasive species. Based on the types of discharges from these vessels, the draft sVGP also contains simplified paperwork requirements relative to VGP. Instead of submitting a Notice of Intent to EPA to obtain coverage, owners/operators would be required to fill out and maintain onboard a simple one-page permit authorization form. As with the draft VGP, we are currently in the process of reviewing and considering public comments received on the draft sVGP. These comments will inform our development of a final sVGP.

The Emission Control Area for the Coastal Regions of the United States and Canada

Ocean-going vessels are significant contributors to air pollution in the United States. These impacts are not limited to port cities and coastal areas. Air quality modeling performed by the EPA has shown that reducing ship emissions will benefit citizens hundreds of miles inland due to the significant quantities of air pollution emitted by vessels.

In 2007, the United States proposed amendments to the International Convention for the Prevention of Pollution from Ships at the International Maritime Organization which would enable countries to significantly reduce air pollution from vessels through the designation of an Emissions Control Area, or "ECA". These amendments were adopted by IMO after a multi-year process involving input from a wide range of stakeholders. Based on extensive air quality

modeling, the United States and Canada applied, through the International Maritime Organization, for the designation of an ECA for the coastal regions of the US and Canada. This application for a North American ECA was adopted by the IMO in 2010.

The ECA will result in large reductions in air pollution from vessels and significant improvements in public health. In 2030, emissions from ships operating in the ECA are projected to be reduced annually by 1.2 million tons for oxides of nitrogen, 143,000 tons of particulate matter, and 1.3 million tons of sulfur oxides. The overall cost of the North American ECA is estimated at $3.1 billion in 2030, however the monetized health-related benefits are estimated to be as much as $270 billion in that year, and includes the prevention of as many as 31,000 premature deaths in 2030 alone.[1]

The first step in the implementation of the ECA begins this upcoming August, when fuel sulfur levels must be reduced to 10,000 parts per million. The Coast Guard and EPA are working closely with the regulated community to ensure an orderly transition to this first step of the ECA standards. This includes the development of policy documents regarding the issue of fuel availability to provide the vessel owners with guidance in the event there are temporary fuel availability issues in specific locations.

Under the regulatory provisions for the ECA, alternative emission reduction approaches, which produce the same emission benefits as fuel meeting the sulfur standard, may be determined to be "equivalent" to utilizing lower sulfur fuel, and thus can be an alternative approach for

[1] U.S. Environmental Protection Agency, "Regulatory Impact Analysis: Control of Emissions of Air Pollution from Category 3 Marine Diesel Engines," EPA-420-R-09-019, December 2009.

demonstrating compliance with the fuel sulfur standards. EPA supports the use of alternative approaches which can produce the same emission benefits as required by the standard.

Recently some elements of the shipping industry have inquired regarding the potential for a population-weighted averaging approach as a scheme for demonstrating equivalency. We estimate that a population-weighted averaging scheme would result in a net increase in the emissions from ships operating in the ECA, and result in a disproportionate environmental burden and risk for citizens in different communities, depending on their population density. An approach trading off anticipated benefits in less populated areas raises serious environmental justice issues in that it could adversely affect under-represented communities in rural areas. The net increase in sulfur oxides, particulate matter, and air toxics emissions associated with such an approach would be detrimental to the affected ecosystems inland of the ECA because of impacts on visibility, ecosystem health, tree biomass production, acidification, and other issues.

However, the EPA does support other alternative compliance approaches which can produce equivalent emission reductions, such as the use of on-board scrubbers for reducing sulfur oxide emissions.

As we move forward with the implementation of the ECA, the EPA will continue to coordinate with shipping and cruise industry representatives regarding these potential alternative approaches.

Conclusion

The 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 through cooperative regulation of ballast water discharges and on implementation of the air emissions ECA for the coastal regions of the US and Canada.

Once again, Chairman LoBiondo, Ranking Member Larsen, and Members of the Subcommittee, thank you for the opportunity to discuss the EPA's VGP and sVGP. I look forward to answering any questions you may have.