The Great Lakes Environmental Law Center

Protecting the world's greatest freshwater resource and the communities that depend upon it

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Re: Permit Application No: EPA-HQ-OW-2011-0141 and No: EPA-HQ-OW-2011-0150

Dear Mr. Ramach,

Please accept these comments submitted on behalf of the Great Lakes Environmental Law Center regarding the US Environmental Protection Agency ("US EPA") draft National Pollutant Discharge Elimination System ("NPDES") General Permits for Discharges Incidental to the Normal Operation of a Vessel, File No. EPA-HQ-OW-2011-0141 ("Draft Permit") that would authorize discharges incidental to the normal operation of non-military and non-recreational vessels greater than or equal to 79 feet in length. EPA is also proposing a draft NPDES small vessel general permit ("sVGP") to authorize discharges incidental to the normal operation of non-military and non-recreational vessels less than 79 feet in length.

For the reasons set forth below, we request that EPA only approve this permit after ensuring that all safety measures and best management practices are in place to protect the fragile U.S. fresh water ecosystems, and specifically the highly sensitive waters of the Great Lakes. Public notice for the Draft Permit states that written comments will be accepted on or before February 21, 2012. Therefore, these comments are timely submitted.

I. INTRODUCTION

Aquatic invasive species ("AIS") are non-native fish, aquatic animals, smaller organisms, viruses and plants that threaten the ecological integrity and economic future of the Great Lakes region. Once AIS are introduced and established, there can be drastic impacts to the ecosystem and economy. Aquatic invasive species compete with native species for food and habitat. Because there are no natural predators to keep them in check, they have a distinct advantage over native species.[1] In many cases, their population explodes after just a few short years and they can dramatically alter the ecosystem. Once in the system, it is almost impossible to eliminate these invaders. The best strategy is to prevent them from entering the ecosystem in the first place.[2] Several examples of aquatic invasive species include the zebra mussel, quagga mussel, white perch, ruffe, sea lamprey, and Eurasian milfoil.

Ballast water is a major vector for the introduction and spread of non-native species into aquatic ecosystems. An estimated 10,000 marine species are transported around the world in ballast water every day.[3] Furthermore, nearly 30% of new species are unintentionally brought to the Great Lakes in the ballast tanks of ocean going vessels. This growing epidemic clearly establishes that current discharge requirements under CWA section 402 National Pollutant Discharge Elimination System (NPDES) permits are simply not stringent enough.

Under the Federal Water Pollution Control Amendments of 1972, Clean Water Act ("CWA") section 301(a), "the discharge of any pollutant by any person shall be unlawful" unless the discharge is in compliance with certain other sections of the Act. A person may discharge a pollutant without violating the CWA section 301 prohibition, by obtaining authorization to discharge under a CWA section 402 National Pollutant Discharge Elimination System (NPDES) permit. The EPA issued the original Vessel General Permit ("VGP") to regulate incidental discharges from vessels operating in a capacity as a means of transportation.

The 2008 VGP addressed 26 potential vessel discharge streams by establishing effluent limits, including Best Management Practices ("BMPS") to control the discharges of waste streams and constituents found in those waste streams. For these discharges, the permit establishes effluent limits pertaining to the constituents found in the effluent and BMPS designed to decrease the amount of constituents entering the waste stream. A vessel owner is responsible for meeting the applicable effluent limits and complying with all the effluent limits for every listed discharge the vessel produces.

Furthermore, the 2008 VGP requires that owners or operators of a vessel that is either 300 or more gross register tons or has the capacity to hold or discharge more than 8 cubic

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[1] Great Lakes Commission des Grand Lacs, Great Lakes Aquatic Invasions, Booklet (2007).

[2] Id.

[3] NOAA Coastal Services Center, 2007, http://www.csc.noaa.gov/

meters of ballast water is required to submit a Notice of Intent ("NOI") to receive permit coverage. The 2008 VGP requires owners or operators of vessels to conduct routine self-inspections and monitoring of all areas of the vessel that the permit addresses.

In light of the valid concerns about the spread of aquatic invasive species through ballast water, EPA is proposing new, more stringent changes to the 2008 VGP. The EPA is organizing these changes into three sections; changes to ballast water requirements; changes to other incidental discharge effluent requirements; and changes to administrative requirements.

II. Standards more stringent than the International Maritime Organization ("IMO") standard are necessary

A key new provision of the permit is a proposed numeric standard to control the release of the non-indigenous invasive species in ballast water discharges. The new ballast water discharge standard addressing invasive species is based upon results from the independent EPA Science Advisory Board and National Research Council National Academy of Sciences ("NAS") studies. These limits are generally consistent with those contained in the International Maritime Organization's 2004 Ballast Water Convention. In order to significantly combat and prevent the spread of AIS, higher standards than the IMO limitations are essential in the draft VGP.

Though the NAS panel conducted studies, the panel found that they could not evaluate the risk associated with a variety of regulatory discharge limits due to "a profound lack of data and information to develop and validate models." The NAS report noted that "Setting a concentration based, ballast water discharge standard that is consistent with IMO D-2 standard, would "represent a significant reduction in concentrations beyond ballast water exchange." Based on this information, the IMO standard is clearly not an effective numerical limitation.

The proposed numerical limitations are a step in the right direction but they do not shut the door on invasive species. The EPA's proposed standard sill allows the discharge of invasive organisms into the Great Lakes and the nation's waters at significant levels. Limits more stringent than the IMO standard are necessary to drive the development of technology. For example, the state of New York's water quality certification for the VGP, is 100 times more restrictive than the IMO standards. The New York Department of Environmental Conservation determined the existing best management practices for ballast water exchange and flushing do not ensure compliance with the CWA, may not be effective, and have highly variable results in preventing the release of viable aquatic invasive species.[4] New York concluded the proposed IMO standards would only provide a marginal improvement, and are not restrictive enough to protect water quality.[5]

[4] http://www.watertowndailytimes.com/article/20120203/NEWS03/702039885
[5] Id.

In addition, the state of California, in the California Marine Invasive Species Act of 2003 directed the California State-Lands Commission to move expeditiously toward elimination of the discharge of non-indigenous species into the waters of the state based on the best available, economically achievable technology that should protect the beneficial uses of California waters. California's interim discharge standards set a limit 1000 times more restrictive than the proposed IMO standard for the draft VGP. Similar to New York, California concluded the proposed IMO standards would only provide a marginal improvement, and are not restrictive enough.[6]

Furthermore, legislative history also supports the need for numerical limitations more restrictive than the IMO standard. In 2007, Rep. James L. Oberstar introduced the Coast Guard Authorization Act of 2007 (H.R. 2830). The bill established a national goal to eliminate invasive species from ballast water by the year 2015. To achieve this goal, the bill required all ships entering U.S. waters to conduct ballast water exchange at least 200 miles off the Nation's coastline. It also required ballast water treatment equipment to be installed on ships. However, the key point in the bill was that it set the ballast water treatment standard at ten times higher than the IMO standard. The bill passed through the House of Representatives, but failed to move in the Senate. Though the Coast Guard Authorization Act of 2007 was not passed in the Senate, it illustrates the need for a higher standard than provided by the IMO. Moreover, advancements in technology since 2007 have demonstrated that higher standards than the IMO are achievable.

III. Numeric Ballast Water Treatment Limits Should be Applicable to existing confined "Lakers."

The draft VGP indicates the numeric concentration-based treatment limits for ballast water discharges would not apply to some vessels. Specifically, it would not apply to "Lakers" built before January 1, 2009 that operate exclusively in the Great Lakes. Though the US and Canadian fleet of vessels that operate exclusively in the Great Lakes do not directly introduce aquatic invasive species into the Great Lakes system, they continuously move large volumes of ballast water between ports within the Great Lakes. Lakers have been found to contain larger volumes of water than oceangoing vessels. Further research and development needs to be done in order to establish the most efficient technology-based treatment for Lakers. Moreover, the area of ballast water technology is constantly changing and evolving. A numeric limitation would serve as a catalyst in the development of ballast water technology for Lakers.

The present interim management measures should continue to be implemented. However, further research is necessary in order to establish the best management practices for Lakers built before January 1, 2009.

[6] http://www.maritimeprofessional.com/Blogs/Martin-Rushmere/August-2011/California-goes-awry-over-ballast-water-treatment.aspx

IV. EPA Must Compress the Compliance Timeline for Vessels to Meet IMO Standards

As most vessels typically drydock on a three to five year cycle, the draft VGP allows vessels an additional three to five year period before having to comply with IMO ballast water discharge standards. This timeline is based on the assumption that any shipboard ballast water management system would have to be installed during the vessel's schedule drydocking.[7] The draft VGP's allowance for vessels to comply with IMO ballast water discharge standards according to the IMO implementation schedule, and only after their first drydocking, is an unjustified delay. Both the U.S. Coast Guard and many vendors have stated that ballast water treatment systems can be installed without drydocking. The EPA should not allow for these delays, and should compress the implementation timeline. Furthermore, the EPA should require that technology-based effluent limitations be met on the date that the new permit goes into effect.

V. Vessels Entering the Great Lakes from Freshwater Should be Required to Conduct Ballast Water Exchange or Saltwater Flushing in addition to Treatment with a Ballast Water Treatment System.

As previously mentioned, the ballast water exchange ("BWE") and saltwater flushing management practices were implemented with some success, as an interim measure. The goal is to stop, or significantly decrease the spread of aquatic invasive species in our waters. Though further research needs to be done on the treatment of ballast water, the interim measures should not be stopped. The practices of ballast water exchange and saltwater flushing have shown some benefits. Though studies vary on the exact percentage of the effectiveness of these measures, the bottom line is that they do work to some extent. To stop ballast water exchange completely would jeopardize the gradual improvements that have taken place towards the overall goal of eliminating aquatic invasive species. Again, the emphasis should be placed on the continuing research for more efficient ballast water treatment technology. This research is needed to address the issues of saltwater-tolerant species that may survive BWE or saltwater flushing. Treatment of ballast water is necessary to better assure that viable non-indigenous species are not discharged.

Presently, one of the interim management measures is that all vessels that are equipped to carry ballast water and enter the Great Lakes via the Saint Lawrence Seaway must conduct saltwater flushing of ballast water tanks 200 nautical miles from any shore before entering either the U.S. or Canadian waters of the Seaway System. Saltwater flushing management practices have shown some success, but always with the understanding that this was an interim measure. More research needs to be conducted in order to demonstrate the effectiveness of saltwater flushing. Some saltwater-tolerant species may survive saltwater flushing. For example, zebra mussels are a well-known

[7] See Draft VGP Fact Sheet at 107, "EPA expects that most existing vessels will need to enter a drydock to install a ballast water management system.."

example of an invasive species that was introduced to the Great Lakes through the ballast water or a transoceanic ship.[8] Purple loosestrife, an exotic perennial plant that inhabits the wetlands of the Great Lakes, also was introduced to the region through the ballast of ships in the early 1800s.[9]

VI. Vessels Requesting a Small Vessel General Permit ("sVGP') should be required to submit a Notice of Intent ("NOI") in addition to a Permit Authorization and Record of Inspection ("PARI")

An NOI provides permitting authorities with useful information to assist in oversight and enforcement of permittees, such as specific location of the vessel and its discharge. When determining whether vessels eligible for coverage under the sVGP should be required to submit NOIs, the EPA found that the volume of discharges incidental to the normal operation of these smaller vessels are limited. Furthermore, the EPA noted the discharge from small vessels "reduced the likelihood for the introduction of significant quantities of toxic and conventional pollutants make requiring an NOI for these vessels to be of little value at this time." In the realm of ballast water, the actual quantity of water being released, and its relation to the spread of aquatic invasive species is not the concern. The concern should be focused on the fact that ballast water is being released. The NOI puts the EPA on notice that a particular vessel will be discharging ballast water. Furthermore, the administrative aspect of an NOI is relatively simple, with great benefits.

Though the purpose of the PARI is to certify that the owner/operator has read and agreed to comply with the terms of the permit, it limits the ability of the EPA to manage the oversight of potential ballast water disposal. The purposes of the PARI and the NOI are different, and it would be useful for the EPA to revisit the underlying needs for these two procedural requirements. The NOI is a procedural tool for the EPA to maintain oversight on the issues of ballast water, and moreover, is potentially useful towards the development of future ballast water technology.

[8]Great Lakes Commission des Grand Lacs, Great Lakes Aquatic Invasions, Booklet (2007

[9] Id.

VII. Conclusion

For all of the above reasons, we respectfully request that EPA fulfill its duty to protect the health of our nations' waters by requiring strict permit conditions. The VGP must require standards more stringent than the IMO, and numeric ballast water treatment limits should be applicable to Lakers. Moreover, the EPA should compress the compliance timeline for vessels. Ships entering the Great Lakes should continue to perform the interim measures of saltwater flushing and ballast water exchange. Finally, the sVGP should require an NOI and a PARI, as both are administratively simple procedures, with great benefits.

Respectfully submitted,

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