March 30, 2009 By electronic mail

Mr. Paul Luebke
Wisconsin Department of Natural Resources
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Re: Comments of Minnesota Center for Environmental Advocacy on Wisconsin DNR's Intent to Issue Wisconsin Pollutant Discharge Elimination System General Permit No. WI-006385-01-0 for BALLAST WATER Discharges

Dear Mr. Luebke:

These comments are submitted on behalf of the Minnesota Center for Environmental Advocacy ("MCEA"), a Minnesota-based non-profit environmental organization whose mission is to use law, science and research to protect and enhance the natural resources, wildlife and the health of its people. Thank you for the opportunity to comment on the proposed Wisconsin Pollutant Discharge Elimination System ("WPDES") General Permit No. WI-006385-01-0 ("the Permit"). MCEA has become engaged in issues related to ballast water and the significant threats ballast water discharges pose by introducing and spreading aquatic invasive species ("AIS") to the waters of Lake Superior. We have reviewed the permit and the related Environmental Assessment to develop these comments.

MCEA congratulates the Wisconsin Department of Natural Resources ("WDNR") for beginning to address the enormous threat posed by invasive species. In addition, MCEA congratulates and supports the imposition of a treatment standard for new ocean-going vessels ("Salties") that is 1000 times more stringent than the International Maritime Organization (IMO) standards, and corresponds to the standards imposed by California (hereinafter, "the CA standard"). Nevertheless, there are significant failings in the Permit, as proposed.

Lakers and Existing Salties also Must be Subject to the CA Standard.

WDNR's proposal to limit the imposition of the CA standards to new Salties is without basis in science and is contrary to law. There is no scientific basis for proposing a less stringent standard for ballast water discharges from existing Salties; these vessels discharge ballast water just like new vessels. Nor is there a scientific basis for excluding all Great Lakes-only vessels ("Lakers") from the CA discharge limits, in light of the fact that Lakers are known to cause and speed the spread of invasive species from lower Great Lakes to the upper Great Lakes.

Lakers are responsible for the vast majority of ballast water that is discharged to the Great Lakes. Lake Superior receives substantially more ballast water than any of the other Great Lakes, and both No Ballast on Board ("NOBOB") vessels and vessels that are generally restricted to the Great Lakes (lakers) can carry AIS. We suggest that in the eventual Findings of Fact there be added a reference to the 1996 Aquatic Sciences Report. The executive summary of this 1996 report states:

"It was found that most ocean going and laker shipping harboured live freshwater organisms which included phytoplankton, zooplankton, and bacteria (human pathogens) in some ballast water samples, regardless of salinity."

Similarly, we suggest you include a reference to the investigations conducted by Dr. Bailey of Fisheries and Oceans Canada. Preliminary results of Dr. Bailey's investigation were presented to a ballast water group meeting convened by the U.S. Coast Guard last December. PCA staff were present at this meeting. Additional preliminary results were presented by Dr. Bailey and her colleagues in June, 2008. The preliminary results in the Bailey presentation in June included:

- 69 distinct taxa identified in Laker ballast;
- Rotifers are most numerically abundant taxon;
- 7 established aquatic nuisance species (ANS) detected (at least 1 in 88% samples); and
- ANS comprise 11% cumulative zooplankton abundance.

These researchers concluded that *"Lakers are an unlikely source of new ANS, but they are likely very important for the spread of ANS in the Great Lakes".* These are the only two investigations that we are aware of that have ever sampled and analyzed the ballast water of Laker vessels. Both these studies sampled very small quantities of ballast water but found live organisms capable of reproducing. In our view this scientific evidence clearly demonstrates that ballast water discharges from Laker vessels can be a vector for the introduction of AIS to the waters of Lake Superior. This scientific evidence along with our knowledge that large quantities of ballast water are discharged into Lake Superior clearly demonstrate that discharge of ballast water from Laker vessels are a significant risk of introducing AIS to Lake Superior from the other Great Lakes.

It is also important to note in this discussion that an estimated 30-40% of all AIS introduced to the Great Lakes are not introduced by ballast water from transoceanic vessels. It is reasonable to assume that some of these AIS not introduced by ballast water could be spread by ballast water movement within the Great Lakes. If other control measures are taken to significantly reduce the introduction of AIS from ballast water into the Great Lakes this permit will still be needed to significantly reduce the risks of spreading these AIS throughout the Great Lakes by all vessels. We also recommend that the Permit reference the just released National Research Council report which has completed an extensive review of ballast water discharges in the Great Lakes.

These conclusions have been largely adopted or mirrored by the Minnesota Pollution Control Agency, in the Findings of Fact, Conclusions of Law, and Order for its general permit for ballast water discharges. The Minnesota Pollution Control Agency (MPCA) found that 95% of the ballast water discharged to Lake Superior comes from Lakers, while just 5% comes from Salties. MPCA, Findings of Fact, Conclusions of Law, and Order, Issuance of the SDS General Permit MNG300000 for Ballast Water Discharges to Minnesota State waters of Lake Superior, p.2, ¶10 ("MPCA Findings of Fact"). The MPCA also has found that Lakers spread invasive species from lake to lake, and pose a risk to Lake Superior:

> Due to the large volume of ballast water that Laker vessels transport around the Great Lakes annually, the U.S. and Canadian Laker fleets also play a role in spreading and dispersing species already introduced and established in the Great Lakes. Lakers can take on ballast water with [aquatic invasive species] in one of the Great Lakes and discharge those AIS into Lake Superior via ballast water.
> …
> Therefore, the untreated discharge of ballast water from both Salties and Laker vessels represents a risk to the Lake Superior ecosystem and Minnesota's inland waters.

MPCA Findings of Fact, p.2, ¶¶13, 14. Moreover, absent the Lakers' massive ballast water discharges, "[n]atural barriers, currents, distance, and unique water conditions would otherwise prevent or significantly delay the spread of AIS," and that "intra-Great Lakes movement of AIS through ballast water discharges is a threat to Minnesota State waters of Lake Superior and Minnesota's inland lakes." *Id.* at p.7, ¶47. Lakers and existing ocean-going vessel ballast water discharges must be included in the Permit and subject to the same treatment standards as new Salties. The CA standard is the appropriate standard.

We have been fortunate that Lake Superior thus far has fewer invasive species than other Great Lakes and as the MPCA concluded, there are a good number of scientific reasons for this (*see* Grigorovich et. al. 2003). We need to enact adequate standards to protect this resource from future invasive species. Zebra mussels and other invasive species have disrupted the ecology of each of the Great Lakes and as more invasive species, like viral hemorrhagic septicemia ("VHS") become established, the integrity of the ecosystem of each Great Lake is put more at risk for to other invaders (*see* Riccardi 2001). These ecological and economic effects from establishment of invasive species go beyond Lake Superior to the "inland" waters of Wisconsin and Minnesota where they cause additional ecological harm and have negative economic impacts.

Finally, MCEA has read, and agrees with, and hereby incorporates by reference, the contents of the March 25, 2009 joint comment letter submitted by the National Wildlife Federation, the Natural Resources Defense Council, *et alia*.

Thank you for the opportunity to comment on the draft Permit.

Sincerely,

Matt Norton
Staff Attorney