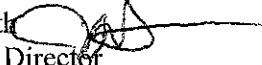


Office Memorandum

DATE: May 11, 2012

TO: MPCA Citizens' Board

FROM: Jeff Smith 
Division Director
Industrial Division

PHONE: 651-757-2735

SUBJECT: **Update on the Draft Section 401 Water Quality Certification of U.S. Environmental Protection Agency's Draft NPDES Vessel Discharge General Permit**

Aquatic Invasive Species (AIS), such as zebra mussels, spiny water flea, and bloody red shrimp, pose a significant risk to the environmental and economic health of Minnesota. One of the significant mechanisms of introducing and spreading AIS to Minnesota waters is via ballast water discharged from vessels that ply the Great Lakes or oceans and that visit the port of Duluth/Superior. The U.S. Environmental Protection Agency (EPA) recently made its draft 2013 Vessel General National Pollutant Discharge Elimination System (NPDES) Permit available for public comment. The permit, which will be valid for five years upon issuance, will regulate discharges from commercial and large recreational vessels within waters of the United States, and it will replace the EPA's current 2008 Vessel General Permit, which expires in December 2013. The EPA has mandated that affected states must make their final Section 401 Water Quality Certification (401 Certification) determination for this permit no later than June 30, 2012.

Under Section 401 of the the Clean Water Act, prior to a federal permit or license being issued for proposed activities that would impact waters of the United States, affected states in which that regulated activity would occur must first provide a 401 Certification determination, to ensure those activities would be in compliance with the applicable state water quality standards. The MPCA administers the Section 401 Water Quality Certification program in Minnesota. When a 401 Certification is required, the MPCA has the following options: (a) Grant the 401 Certification; (b) Grant the 401 Certification with conditions; (c) Waive the 401 Certification; or (d) Deny the 401 Certification. Granting a 401 Certification, with or without conditions, allows the federal permit or license to be issued consistent with any conditions of the 401 Certification. Denying a 401 Certification prohibits the federal permit or license from being issued. A Waiver of 401 Certification allows the permit or license to be issued without MPCA comment. The MPCA makes its decision to deny, certify, or condition permits or licenses based, in part, on the proposed permit's ability to maintain compliance with MPCA's water quality standards.

The MPCA, with input from the Minnesota Department of Natural Resources, is currently developing a Conditional 401 Water Quality Certification for the 2013 Vessel Discharge Permit, as it appears there is a reasonable assurance that the activities the permit would authorize will be conducted in a manner that will comply with the applicable state water quality standards, provided the 401 Certification Conditions are followed.

Among the vessels that arrive at the Duluth/Superior harbor, there are two main types. The first type includes the vessels which stay within the Great Lakes, so called "Lakers." These vessels make routine trips between domestic ports in short periods of time (hours to days), and a typical route of large Lakers might be repeated 40 or more times over the course of a year. The other

type of vessel includes the oceangoing vessels, or "Salties," which transit between Minnesota and foreign ports. These vessels are typically smaller than the Lakers to get through the Canals and Locks. A given vessel might visit Superior/Duluth once over a period of a year or longer. The typical oceangoing ship traveling to a Minnesota port would first travel through Montreal, usually fully loaded with cargo, and perhaps make further stops in other ports such as Hamilton on Lake Ontario, or Cleveland on Lake Erie, where cargo would be unloaded and replaced with ballast water from the Great Lakes. The vessel may then go to Duluth/Superior where the mixed saltwater and freshwater ballast water is discharged, and outbound cargo is loaded. In this way, oceangoing ships coming to Minnesota waters can both introduce species new to the Great Lakes system and spread AIS from one lake to another.

Within the draft 2013 Vessel General Permit, there are more than 26 different types of discharges from vessels that are covered and have associated requirements. For the MPCA's 401 Certification, staff has been focused primarily on the discharge of ballast water from vessels covered by the permit because of the large volume and frequency of discharge—two main factors in mitigating the spread of invasive species. Ballast water discharges are particularly of concern to Minnesota, because the Duluth/Superior harbor alone may receive 6 billion gallons per year, as it did in 2007. The vast majority of this discharge results from the Lakers, which are larger vessels and make much more frequent trips.

The major issues focused on in the development of this 401 Certification include the following topics. First, Minnesota must determine the implementation schedule for treatment technology on ships to meet the International Maritime Organization D-2 (IMO D-2) standards, a technologically possible international benchmark which results in an approximately four-order of magnitude (99.99 percent) reduction in living organisms within ballast water. Second, Minnesota must determine if a Water Quality-Based Effluent Limitation which can sufficiently protect the water quality from invasion of AIS can be derived and included within the draft 2013 Vessel General Permit term. Third, Minnesota must determine how Lakers should be covered by the 2013 Vessel General Permit, and what requirements are applicable to these vessels. The draft 2013 Vessel General Permit exempts the Lakers from numeric discharge standards, which conflicts with Minnesota's permit, which covers all vessels longer than 50 meters which arrive at Minnesota ports. Fourth, Minnesota must determine if there are emergency conditions which may require the use of a chemical dosing treatment to address known high-risk situations. Finally, Minnesota must decide what, if any, ongoing monitoring is applicable to vessels covered under the permit, and if different monitoring requirements should apply to vessels required to treat ballast water versus vessels not required to treat ballast water.

In September 2008, the MPCA adopted a General State Disposal System (SDS) permit for ballast water discharges. The state permit, which is scheduled to be reviewed and reissued in 2013, requires vessels to comply with the biological performance standards consistent with International Maritime Organization, US Coast Guard, and proposed EPA regulations. Minnesota's implementation schedule for the performance standards is substantially faster than the federal regulations. During the 2013 permit reissuance, the implementation schedule, as well as other permit conditions, will be reviewed and may be modified.

The next steps for the 401 Certification of the draft 2013 Vessel General Permit include the completion of the public notice period, which ends on May 28, 2012, processing and responding to comments received, and presenting a recommendation for the MPCA Citizen's Board to consider during its June 26, 2012 meeting, at which time a decision on the 401 Certification will need to be made.