Ballast Water Management in Michigan
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Introduction

Aquatic nuisance species (ANS) are waterborne, nonnative organisms that can threaten the diversity or abundance of native species; damage the ecological stability of affected waters; and jeopardize commercial, agricultural, aquacultural, and recreational activity. These species have the potential to cause significant environmental, economic, and public health problems when they are introduced to a habitat that lacks natural controls, such as predators, parasites, pathogens, and competitors. They can crowd out native species, alter habitats, change predator/prey relationships, and transmit foreign disease or parasites. They also can cause such problems as food chain disruption, reduced biodiversity, clogging of water intakes, and increased weed growth. Furthermore, measures to eliminate ANS from an ecosystem are costly and sometimes result in more harm.

Ballast water discharge by ships is the most significant source of unintentional introduction of ANS to the Great Lakes. Ships take on ballast water for stability when they are not filled with cargo. When drawing in ballast water in one port, ships may pick up live organisms. As the ships are loaded with cargo in the Great Lakes ports, ballast water is discharged, releasing the live organisms into the lakes. In light of the adverse effects of nonnative invasive species in the Great Lakes Basin, the State enacted legislation to regulate ballast water discharges by oceangoing vessels; extend penalties to a person responsible for an illegal or unauthorized discharge of ballast water; and create an interstate coalition to control ANS.

This article provides an overview of Michigan's ballast water law and recent litigation challenging it, as well as new and proposed Federal regulations to address the problems caused by ANS.

State Legislation

Public Act 33 of 2005 amended the Natural Resources and Environmental Protection Act (NREPA) to require all oceangoing vessels engaging in port operations in Michigan to obtain a permit from the Department of Environmental Quality (DEQ), beginning January 1, 2007. The DEQ may issue a permit only if the applicant can demonstrate that the vessel will not discharge ANS or, if the vessel discharges ballast water or other waste or waste effluent, that the vessel's operator will use environmentally sound technology and methods to prevent the discharge of ANS. The application fee is $75, and the annual fee for a permit is $150.

Public Act 33 also authorized the DEQ to promulgate rules regarding the permits and required the DEQ to facilitate the formation of an interstate Great Lakes Aquatic Nuisance Species Coalition.

Public Act 32 of 2005 amended NREPA to establish penalties for a permit violation. The Natural Resources and Environmental Protection Act prohibits a person from directly or indirectly discharging into the State's waters a substance that is or may become injurious to any of the following:

- The public health, safety, or welfare.
- Domestic, commercial, industrial, agricultural, recreational, or other uses that are being made or may be made of the waters.
• The value or utility of riparian land.
• Livestock, wild animals, birds, fish, aquatic life, or plants, or their growth or propagation.
• The value of fish and game.

Under Public Act 32, an unauthorized discharge into Michigan waters from an oceangoing vessel of any ballast water is prima facie evidence of a violation. (Prima facie evidence is evidence sufficient to establish a given fact unless it is rebutted or contradicted.) The DEQ may request the Attorney General to commence a civil action for appropriate relief for a violation. In addition to any other relief, the court must impose a civil fine of at least $2,500 and may award reasonable attorney fees and costs to the prevailing party. The maximum fine the court may impose is $25,000 per day of violation.

Additionally, a person who at the time of the violation knew or should have known that a discharge was unauthorized is guilty of a felony and must be fined between $2,500 and $25,000 for each violation. The court may impose an additional fine of up to $25,000 for each day that the unlawful discharge occurred. For a subsequent conviction, the court must impose a fine of between $25,000 and $50,000 per day of violation. The court also may sentence the defendant to imprisonment for up to two years or impose probation.

The court must impose an additional penalty if it finds that a defendant's actions pose or posed a substantial endangerment to the public health, safety, or welfare. In a civil action, the court must impose an additional fine of between $500,000 and $5.0 million. In a criminal case, the court must impose an additional fine of at least $1.0 million and a sentence of five years' imprisonment.

Litigation

In 2007, several shipping companies and shipping associations, a port terminal, and a port association sued the DEQ and the Attorney General in the U.S. District Court for the Eastern District of Michigan, seeking an injunction against enforcement of the ballast water legislation on the grounds that it was preempted by Federal law, violated the Commerce Clause of the United State Constitution, and violated their due process rights under the Fourteenth Amendment. The State moved to dismiss the complaint. Later that year, the Court denied the plaintiffs' motion for summary judgment and dismissed the complaint. The plaintiffs appealed to the U.S. Court of Appeals for the Sixth Circuit.

The Court of Appeals first addressed whether the plaintiffs had standing to challenge the statute. The Court determined that each of the shipping companies had standing to challenge the permit requirement for all oceangoing vessels, as did the shipping associations; the port terminal and the port association, however, did not because they were not required to obtain the permits and, thus, suffered no injury.

The Court determined that none of the plaintiffs had standing to challenge the requirement that all oceangoing vessels that discharge ballast water in Michigan use a DEQ-approved treatment system to prevent the discharge of ANS. This led the court to conclude that it had jurisdiction over only the claims of the shipping companies and shipping associations regarding the permit requirement. The Court addressed the plaintiffs' claims as described below.
Federal Preemption

The plaintiffs asserted that the permit requirement was preempted by Federal law. As Congress did not expressly state in several Federal statutes pertaining to ANS that it intended to preempt state law, the Court turned its attention to the question of implied preemption, i.e., whether Congress occupied the field in which the permit requirement fell, or whether the requirement actually conflicted with Federal law.

The plaintiffs claimed that the permit requirement was subject to field preemption because two Federal statutes, the National Invasive Species Act (NISA) and the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA), left no room for enforcement of Michigan's ballast water law. After determining that the field in question was the prevention of ANS introduction, the Court examined congressional intent. Noting that NISA states, "...resolving the problems associated with aquatic nuisance species will require the participation and cooperation of the Federal Government and State governments", the Court concluded, "Thus we know that states can--and indeed must--have a role with respect to ANS 'problems'; the question, then, is whether that role is limited to ANS 'control,' or extends also to 'prevention.'" Citing references in NISA and NANCPA to ANS prevention measures involving state governments, the Court determined that Federal law does not preempt that field.

The Court also referred to comments from the U.S. Coast Guard supporting its interpretation, particularly an express statement that, "[E]ach State is authorized under NISA to develop their own regulations if they feel that Federal regulations are not stringent enough." In light of all of this information, the Court determined that the plaintiffs had identified no Federal interest that supported the claim that Congress intended to preempt the field of ANS prevention.

The Court also found that the ballast water statute furthered, rather than conflicted with, the objective of Congress specified in NISA; namely, "to prevent unintentional introduction and dispersal of nonindigenous species into waters of the United States through ballast water management and other requirements."

Commerce Clause

The plaintiffs claimed that Michigan's ballast water statute burdened interstate commerce in violation of the Commerce Clause of the U.S. Constitution. The Court noted that the statute clearly did not favor in-state economic interests over out-of-state interests, and thus had to be upheld "...unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits." As the plaintiffs had conceded in district court, invasive species constitute a serious threat to the ecosystem and must be addressed. Observing the billions of dollars in economic damage done by zebra mussels, the Court of Appeals stated that "[T]o the extent the permit requirement even marginally reduces the problem of ANS introduction, its local benefits would be very large. In

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1 Found in Article I, Section 8 of the U.S. Constitution, the Commerce Clause authorizes Congress to regulate commerce with foreign nations and between the states. The U.S. Supreme Court has long interpreted the language to contain a "dormant" Commerce Clause, as well, which means that states may not unduly burden interstate or foreign commerce even where Congress has not enacted legislation. In the case challenging Michigan's ballast water statute, the plaintiffs claimed that the law violated the dormant Commerce Clause.
contrast, the burdens imposed by the permit requirement—an application fee of $75, a yearly fee of $150, and the completion of a few forms—are de minimis."

In addition, the Court noted that Congress had expressly contemplated state participation in ANS prevention measures through the enactment of NISA. The Court held, "We would lose our constitutional bearings if we were to hold that the Commerce Clause, in its dormancy, strikes down state regulation that Congress, in actively exercising its power under the Clause, expressly contemplated. We therefore affirm dismissal of the claim."

Due Process

Finally, the Court addressed the plaintiffs' claim that the permit requirement for oceangoing vessels, even those that do not discharge ballast water containing ANS, deprived them of their property without due process of law in contravention of the Fourteenth Amendment. Citing case law, the Court found, "[T]he permit requirement 'need only be rationally related to a legitimate government purpose' to be upheld…This test is 'highly deferential; courts hold statutes unconstitutional under this standard of review only in rare or exceptional circumstances.'" According to the Court, the permit requirement was rationally related to advancing the State's legitimate interest in preventing the introduction of ANS from ballast water discharges by oceangoing vessels, and therefore did not violate the plaintiffs' due process rights.

The Court reaffirmed the District Court's order, stating, "Michigan for undisputedly legitimate reasons, has enacted legislation of a type expressly contemplated by Congress. We have no basis to disrupt the result of those democratic processes."

EPA Lawsuit

A case in the U.S. District Court for the Northern District of California challenged a regulation of the U.S. Environmental Protection Agency (EPA) that excluded discharges incidental to the normal operation of a vessel from National Pollutant Discharge Elimination System permitting. In 2005, the District Court held that the EPA exceeded its authority under the Clean Water Act, and issued an order revoking this regulation. After the Court's order was upheld by the U.S. Court of Appeals for the Ninth Circuit, the EPA issued a draft general permit to regulate 26 categories of incidental discharges, including ballast water discharges. The final Vessel General Permit (VGP) requires vessels (subject to certain exceptions) to comply with specific reporting requirements and best management practices, and establishes effluent limits for various waste streams. In addition, the VGP incorporates U.S. Coast Guard requirements for ballast water management and exchange (described below) and requires vessels declaring "no ballast on board" (NOBOB) to flush their tanks with saltwater to kill any residual freshwater organisms. The permit requirement took effect on February 6, 2009.²

In January 2009, several environmental groups filed a petition for review in opposition to the VGP in the Ninth U.S. Circuit Court of Appeals. Opponents of the new permit believe that its requirements are too weak to meet the standards of the Clean Water Act. They note that ballast water exchange and tank flushing are already required by Coast Guard rules, but claim that these measures are not

² Details about the VGP can be found at http://edocket.access.gpo.gov/2008/pdf/E8-30816.pdf.
sufficient to protect the Great Lakes and U.S. coastal waters. According to the environmental groups, the EPA should have required vessel operators to install on-board ballast water treatment systems and prescribed limits on the number of live organisms that may be discharged in ballast water, as some states have done. The maritime industry and the EPA counter that effective sterilization technology is not yet available (although some states, including Michigan, prohibit ships from discharging ballast water without treating it first).

**Proposed Coast Guard Rules**

In August 2009, the Coast Guard proposed to amend its ballast water management regulations by establishing a limit on the concentration of living organisms allowed in ships' ballast water discharges in U.S. waters and establishing an approval process for ballast water management systems (BWMSs). The proposed rule contains two phases of ballast water discharge standards (BSDSs), which vary according to each vessel's ballast capacity and build date. Both phases would have a phase-in period for compliance.

Current Coast Guard rules require all vessels equipped with ballast tanks and bound for ports or places of the U.S. to conduct a mid-ocean ballast water exchange (BWE), retain their ballast water onboard, or use an alternative environmentally sound management method. The effectiveness of BWE varies depending on vessel type, exchange method, ballasting system configuration, and exchange location. The Coast Guard has stated that BWE has been useful as an interim management practice, but should not serve as a basis for a protective programmatic regimen; and that establishing numeric discharge standards would be more effective.

Under the proposed rule, all vessels that operate in U.S. waters, that are bound for ports in the U.S., and that are equipped with ballast tanks would have to install and operate a Coast Guard-approved BWMS before discharging ballast water into U.S. waters, subject to certain exceptions.

During the phase one phase-in period, certain vessels would have to meet the BWDS, while others still could use BWE. At the end of the phase one schedule, the BWE option would be eliminated and all ships would have to meet either the phase one or phase two standard, as applicable, or retain their ballast water onboard. Following full implementation of the phase two standard, the Coast Guard would review the BWDS every three years.³

Existing Coast Guard rules contain two separate subparts regarding ballast water management—one pertaining to U.S. ballast water management, and one specific to ballast water management in the Great Lakes. The separate Great Lakes regulations were established to accommodate unique vessel traffic patterns in the Great Lakes and in acknowledgment of the need for special protections from ANS in the region. The Coast Guard proposes to retain these regulations.

The proposal would establish a BWMS approval program, including requirements for the design, installation, operation, and testing of systems to ensure that they meet required safety and performance standards.

The period for public comments on the proposed rules has been extended to December 4, 2009.