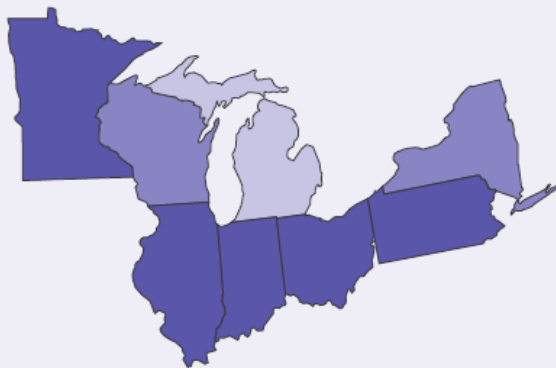





**Summary of Key Elements of Great Lakes State Ballast Water Treatment Permit Requirements
& U.S. Clean Water Act Sec. 401 Certification Conditions**

State	Regulatory Vehicle	Existing Oceangoing	New Oceangoing	Existing Lakers	New Lakers	Comments
Illinois	401 Certification	IMO by Jan. 2016	IMO for ships launched after Jan. 2012	IMO by Jan. 2016	IMO for ships launched after Jan. 2012	
Indiana	401 Certification	IMO by Jan. 2016	IMO for ships launched after Jan. 2012	---	---	
Michigan	State permit 401 Certification	Discharge prohibited unless approved treatment to prevent AIS in place	Discharge prohibited unless approved treatment in place	---	---	Rights reserved to modify 401 Cert. if it is determined that ballast treatment on lakers is necessary, available and cost effective
Minnesota	State Permit 401 Certification	IMO by Jan. 2016	IMO for ships launched after Jan. 2012	IMO by Jan. 2016	IMO for ships launched after Jan. 2012	MPCA approval of treatment technology
Ohio	401 Certification	IMO by Jan. 2016	IMO for ships launched after Jan 2012	---	IMO for ships launched after Jan. 2016	
Pennsylvania	401 Certification	IMO by Jan. 2016	Various standards more stringent than IMO for ships launched after Jan. 2012	IMO by Jan. 2016	Various standards more stringent than IMO for ships launched after Jan. 2012	Can request to extend compliance date if can justify
New York	401 Certification	100x IMO by Jan. 2012	1000x IMO for ships launched after Jan. 2013	100x IMO by Jan. 2012	1000x for ships launched after Jan. 2013	Can request to extend compliance date if can justify
Wisconsin	Draft State Permit No finding on 401 Certification	100x IMO by Jan. 2012; if no technology then IMO applies	1000x IMO for ships launched after Jan. 2013, if no technology, then IMO applies	BMPs and sediment management plan, may have discharge standard in future	BMPs and sediment management plan	Hearing held March 23 – evaluating comments submitted on General Permit which state plans to issue with revisions

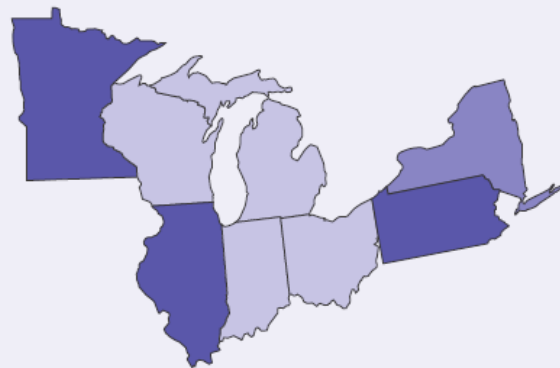
States' proposed or existing ballast water treatment standards for vessels using the Great Lakes and the region's ports*


Existing oceangoing vessels



-  Comply with proposed International Maritime Organization (IMO) standard by 2016
-  Comply with standard 100 times more stringent than IMO standard by 2012 (if not technically feasible, Wisconsin then uses IMO standard)
-  Michigan does not use IMO standard; treatment requirements are based on 2005 legislation and permit program already in place

Existing "lakers" (non-oceangoing vessels)



-  Comply with proposed IMO standard by 2016
-  Comply with standard 100 times more stringent than IMO standard by 2012
-  No standard (Wisconsin requires management plan of lakers)

* In many cases, earlier and/or more-stringent requirements apply to new oceangoing vessels or lakers that launch after 2012 or 2016. States' permit programs and treatment standards have been initiated in different ways, including legislation, state agency-initiated permit programs and "401 certification" (as part of the U.S. Clean Water Act, states have the authority to protect their waters beyond minimum federal standards).

Sources: Great Lakes Commission, Great Lakes United and CSG Midwest research

Ballast Water Treatment Requirements Based on the International Convention for the Control and Management of Ships' Ballast Water and Sediments (International Maritime Organization (IMO))

Parameter: Living Organisms	Limit
Organisms greater to or equal to 50 micrometers in minimum dimension	Less than 10 viable organisms per cubic meter
Organisms less than 50 micrometers in minimum dimension and greater than or equal to 10 micrometers in minimum dimension	Less than 10 viable organisms per milliliter
Parameter: Concentrations of Indicator Microbe	
Toxicogenic <i>Vibrio cholerae</i> (O1 and O139)	Less than 1 colony forming unit (cfu) per 100 milliliters or less than 1 cfu per 1 gram (wet weight) zooplankton samples
<i>Escherichia coli</i>	Less than 250 cfu per 100 milliliters
Intestinal Enterococci	Less than 100 cfu per 100 milliliters