Permit Fact Sheet

General Information

Permit Number:	WI-0063835-04 General Permit
Activity:	Ballast Water Discharge
Permittee:	U.S. and international commercial vessels $\geq$ 24.1 meters in length and $\geq$ 8 m^3 ballast capacity
Discharge Locations:	Ports of call or in transit on commercial shipping routes
Receiving Water:	Lake Michigan, Lake Superior, and other locations with commercial shipping traffic in WI

General History of Ballast Water and Permitting Regulation

General permits (GP) are designed to cover discharges from a category of activities that are similar in character. When a GP is issued, many dischargers meeting its requirements may be covered under the same GP. The Wisconsin Department of Natural Resources (department) has several categories of GPs covering hundreds of facilities. For facilities with activities eligible for coverage under a general permit, have submitted a complete application and are deemed eligible for coverage, the department sends a cover letter and a copy of the GP to the facility authorizing permit coverage. A facility may need to be covered under more than one GP, depending on the types of waste streams that a facility discharges. However, a facility that requires an individual permit for any part of its discharge may have all of its discharges covered under one individual permit.

In the early 2000s, concerns and damage to the environment caused by aquatic invasive species (AIS) raised the awareness for the need to control and regulate the discharge of ballast water from vessels, which has been the major vector for AIS introduction into the Great Lakes along with spreading existing AIS throughout the Great Lakes. However, discharges incidental to the normal operation of a vessel, which include ballast water discharges, were exempt from Environmental Protection Agency (EPA) regulations under the Clean Water Act from 1973 until 2008. In December 2008, following a U.S. District Court for the Northern District of California order, EPA issued the initial Vessel General Permit (VGP) general permit to regulate ballast water and 25 other discharges from commercial vessels under the Clean Water Act section 402 and vacated its exemption effective February 6, 2009. The VGP was reissued December 19, 2013, with Wisconsin's and other states CWA section 401 Water Quality Certifications and remains in effect at this time. In addition to regulation by the EPA, the US Coast Guard (USCG) also regulates ballast water discharges. The USCG adopted the Ballast Water Discharge Standard Final Rule on March 23, 2012 and this rule includes effluent discharge limits for oceangoing vessels. The department issued its first ballast water GP in 2009, and this is the 4th reissuance of it. The state issued its GP under authority delegated to it by EPA under the Clean Water Act. This delegated authority allows the state to regulate discharges of pollutants, including ballast water discharges, to waters of the state pursuant to Wis. Stat. §283.35 (1m). For more information on the history regulating ballast water and other discharges incidental to the normal operation of a vessel, refer to the 2013 VGP and accompanying fact sheet available at the EPA web site:

https://www.epa.gov/npdes/vessels

The VGP, including the terms of the department's CWA section 401 certification of the 2013 VGP and the departments proposed reissued GP, requires effluent discharge limitations for viable organisms and ballast water exchange for oceangoing vessels; however, this discharge standard is not applicable to vessels operating only on the Great Lakes (Great Lakes vessels, also known as "Lakers").

On December 4, 2018, the Vessel Incidental Discharge Act "VIDA" was passed by the US Congress and establishes a nationwide framework for the regulation of discharges incidental to the normal operation of a vessel under Clean Water Act Section 312(p). The intent of VIDA is to streamline federal, state and local requirements for the commercial vessel operating community while still providing protections against incidental discharges. The regulatory goal is to have one set of uniform national regulations applied to both Laker and ocean-going vessels which will be administered by the USCG under VIDA. Although the states may not be the primary administrator for vessel

discharges, they may request compliance and enforcement authority from the USCG and collect fees for vessel arrivals. Once VIDA is in full effect, including performance, compliance and enforcement standards, the VGP and state permits may be discontinued.

Rationale for Permit Requirements and Changes

This permit contains editorial and structural changes from the previous version in the standard requirement section to better align with other general permits in Wisconsin.

1 Applicability

Vessel operators operating in Wisconsin Waters and stopping at a Wisconsin Port that have a ballast tank capacity of at least 2114 gallons (8 cubic meters), are at least 79 feet in length (24.1 meters) and received a federal 2013 VGP authorization, must receive coverage under this permit. These two criteria are consistent with the 2013 VGP applicability requirements.

1.2 Vessels Excluded

This permit identifies four criteria that qualify a vessel for an exemption from coverage under the Wisconsin GP. A permit is not required, if any of the following apply:

1. Vessels with sealed ballast tanks that are unable to discharge. However, if the ballast tanks have the potential to discharge the vessel must obtain permit coverage, even if it does not intend to discharge ballast into waters of the state.
2. The vessel's ballast water is removed and treated by another entity, such as an onshore treatment facility.
3. Vessels with flow-through ballast that is constantly being exchanged such as the ballast-free ship concept designed and patented by the University of Michigan.
4. Vessels of the U.S. Armed Forces as they are subject to their own regulation.

1.3 Activities Not Covered

This section was updated to include language from the Wisconsin CWA section 401 Water Quality Certification, Part 6.25 of the VGP and from section 1.2 of the previous permit. This permit does not apply to activities meeting any of the following conditions:

- Activities likely to jeopardize the continued existence of a state designated threatened or endangered species or species proposed for such designation, or which is likely to destroy or adversely modify the habitat of such species [s. 29.604, Wis. Stats.; s. NR 1.015(1)(a), Wis. Adm. Code].
- Activities that would result, overall, in adverse impacts to fishery spawning habitat or adversely affect avifauna breeding areas or substantially disrupt the movement of those species which normally migrate from open water to upland or vice versa (i.e. amphibians, reptiles and mammals) [s. NR 102.01(2), Wis. Adm. Code].
- Activities detrimental to the public interest in waters of the state [s. NR 102.01(2), Wis. Adm. Code].
- Discharges containing AIS or diseases (such as Viral Hemorrhagic Septicemia (VHS)) at a level that would violate the designated use of the waterbody; constitute a threat to public health, safety, or welfare; or contribute to a violation of water quality standards [s. NR 102.01, Wis. Adm. Code].
- Activities that transport, introduce, possess, or transfer invasive species unless the department has determined that reasonable precautions have been made to prevent or minimize such occurrences to comply with ch. NR 40, Wis. Adm. Code. It could be assumed that if a permittee is implementing their ballast water management plan and or ballast water treatment system, they would be taking reasonable precautions.
- A discharge from vessels carrying high-risk ballast water is prohibited without department review and authorization. If the department determines ballast water proposed for discharge represents a high-risk for introduction of nonindigenous species, it will notify permittees and port authorities of the high-risk ballast water and, if feasible, management alternatives are available to minimize that risk and protect waters of the state. This may include emergency treatment, ballast water exchange, alternate locations for uptake and/or discharge, etc. This requirement

is not new and has been required in the 2013 VGP under section 6.25.

- Fills or deposition of material in navigable water (s. 30.12, Wis. Stats).

2 Obtaining Permit Coverage

To obtain permit coverage, vessel owners or operators must submit a Notice of Intent (NOI) 30 days prior to arriving in a Wisconsin port or conducting ballasting activities in Wisconsin waters. Permittees with vessels that currently have permit coverage must also submit a NOI 30 days prior to the 5-year anniversary after the original permit coverage date for each vessel covered. In order to avoid any unnecessary duplication, a copy of the same NOI sent to EPA requesting coverage under the VGP may be used to request coverage under the Wisconsin Ballast Water Discharge General Permit. The department will grant coverage for a period of 5 years under the permit after the NOI is approved by the department and a permit coverage letter is issued. A copy of the 2013 VGP NOI can be downloaded at the EPA website:

https://ofmpub.epa.gov/apex/vgpenoi/f?p=vgp:Search

2.2 Incomplete NOI

Applicants will be notified if the NOI is incomplete and if additional information is required before permit coverage will be granted.

2.3 Granting of Coverage

The automatic permit coverage language was taken out of this section to be consistent with other GP application requirements. Applicants must have received a letter from the department conveying coverage under the general permit prior to discharging to waters of the state.

2.4 Notice of Termination (NOT)

Coverage under the Wisconsin GP will be terminated upon the submittal of written notice to the department at DNRWisconsinballastwater@Wisconsin.gov requesting permit coverage be terminated. As with the NOI process, the department will make use of the EPA termination of coverage process to avoid unnecessary paperwork duplication if a NOT for the VGP is also required.

3 Prohibited Discharges

Permitted vessels are prohibited from discharging certain types of substances including captured intake filtration solids, ballast tank sediments, and seawater above a specific salinity (see subsection 3.3).

3.1 Intake Filtration Residuals

Any solid material strained out of the water intake system or sea chest, other than fine material entrained in backwash water, must be collected and disposed of properly (refer to Wisconsin's solid and hazardous waste regulations as noted in Subsection 3.2 of the permit). This requirement is similar to what the department requires of facilities that have surface water intakes, such as power plants that withdraw cooling water from Lake Michigan. Any of the larger material collected by the intake may not be returned to the water, regardless of whether the vessel is discharging to the same water source of the material.

3.2 Disposal of Solids Removed from Ballast Tanks or by Treatment System

Any accumulated solids, sediment, or biological material in the ballast tanks, or generated by a treatment system, may not be discharged back into waters of the state. The release of sediment violates the water quality standard for objectionable deposits on the bed of a water body as specified in s. NR 102.04(1)(a), Wis. Adm. Code. The re-suspension of sediment when washing ballast tanks and then discharging the sediment laden wash water into surface water while in transit has

historically been a common practice; however, the Wisconsin GP explicitly prohibits this practice, consistent with the constraints on sediment in the 2013 VGP (Subsection 2.2.3.3), which states vessels must "clean ballast tanks regularly to remove sediments in mid-ocean or under controlled arrangements in port or at dry dock". The permit also requires the documentation of when ballast tanks are cleaned and where solids are disposed of, if that occurs within the jurisdiction of Wisconsin. The prohibition on the discharge of sediment in this subsection should be effective in helping reduce the risk of spreading AIS because many organisms in various life stages are present and more concentrated in this sediment.

3.3 Seawater

Seawater in other than residual amounts may not be discharged unless the effluent complies with the Wisconsin acute chloride effluent limit. Wisconsin has a chloride toxicity criterion in ch. NR 105, Wis. Adm. Code, that is applicable to the point source discharge from vessel ballast tanks. A 1514 mg/L effluent chloride limit, which is approximately 2.7 parts per thousand (ppt) salinity, is necessary to prevent the occurrence of acute toxicity at the point of discharge from the vessel. This chloride salinity discharge limit is required to prevent acute toxicity effects on indigenous freshwater species from saltwater ballast discharges.

4 Ballast Water Management

This section does not contain any additional requirements from those included in the current permit or the 2013 VGP.

4.1 Ballast Water Discharge Standards

The International Maritime Organization (IMO) standard in section 4.1 lists the ballast water discharge standards for non-exempt vessels. Additionally, this section indicates what vessels the requirements apply to, and the effective date for the implementation for vessels to utilize a type-approved ballast water treatment system. It should be noted that "Great Lakes Vessels" or "Lakers" built before January 1, 2009, vessels engaged in short-distance voyages, unmanned, unpowered barges or inland seagoing vessels less than 1600 gross registered tons, are not required to meet the IMO discharge standards, consistent with Parts 2.2.3.5.3 and 2.2.3.8 of the 2013 VGP. It should be noted that the Second Circuit Court in 2015 found EPA acted "arbitrarily and capriciously" regarding ballast water in the 2013 VGP and that the EPA would need to reevaluate the discharge standards and pre-2009 Laker exemption in the future. It is unclear at this time how this court decision will be addressed through the under-development VIDA implementation regulations.

The ballast water discharge standards that limit the number of allowable viable organisms are technology-based performance limits. Following the IMO's lead on performance standards for the discharge of ballast water, the department included the IMO's ballast water discharge performance standards into this and previous versions of the permit. This standard is also consistent with the 2013 VGP and USCG rules.

These limits may be met by using one of the following ballast water management measures:

a) Ballast water treatment systems

b) Onshore treatment of ballast water

c) Use of water solely from a public water supply water system

d) No discharge of ballast water

The primary concern addressed by this permit is the prevention of new AIS or disease introductions as well as the spread of existing AIS into new areas of the Great Lakes while vessels are operating and discharging in Wisconsin waters. Mid ocean ballast water exchange, along with best management practices (BMPs), are required even after ballast water treatment systems are installed and being operated on applicable vessels.

If there are not USCG approved systems for use in fresh water for the specified vessel by the dates specified in the permit, the permittee must provide copies of USCG extension letters to the department upon request.

4.2 Ballast Water Treatment Systems (BWTS)

Treatment systems must be type approved by the USCG and meet IMO standards in freshwater. Treatment systems must be operated to manufactures guidelines and comply with Part 2.2.3.5.1.1 of the 2013 VGP.

4.3 Ballast Water Exchange or Flushing

Ballast water exchange or flushing on oceangoing vessels containing ballast, and ballast water flushing on oceangoing vessels containing no ballast on board (NOBOB) shall be carried out beyond the Exclusive Economic Zone (EEZ), from an area more than 200 nautical miles from any shore, in waters more than 2000 meters deep, such that, at the conclusion of the exchange or saltwater flush, any tank from which ballast water will be discharged contains water with a minimum salinity level of 30 parts per thousand, or if there is NOBOB, the residual water at the bottom of the tank has a minimum salinity level of 30 parts per thousand. These requirements remain in effect even after an onboard BWTS becomes operational. Ballast water exchange or flushing in a combined treatment process tends to minimize the introduction of any non-indigenous species in the Great Lakes.

4.4 Biocide Use

This section of the permit applies to all vessels that choose to use biocide treatments in their ballast water. If a vessel uses chlorine or other biocides at any time, their ballast water discharges are subject to limitations based on Wisconsin chemical toxicity criteria and limit calculation procedures (in part based on chs. NR 105 and 106, Wis. Adm. Code).

4.4.1 Limits for Biocide Treatment

The requirement for a generic restriction on all other biocides was maintained in the proposed permit, with biocide use restrictions being determined by the department on a case-by-case basis as necessary.

The total residual chorine (TRC) allowable daily maximum (acute) total residual chlorine (TRC) concentration limit was developed in accordance with chs. NR 105 and 106, Wis. Adm. Code, to maintain compliance with Wisconsin's water quality standards. A chronic limit was deemed unnecessary for the short term and intermittent discharges of ballast water. It should be noted that the established Wisconsin water quality-based acute limit, 38 µg/L (0.038 mg/L), is more stringent than the 100 µg/L (0.1 mg/L) limit contained in the 2013 VGP. An appropriate analytical method with a limit of detection (LOD) low enough to determine compliance with the permit should be used. However, current department policy allows using an analytical method with a limit of detection (LOD) equal to or less than 0.1 mg/L. If an approved test method is used that can achieve a LOD of 0.1 mg/L or lower and the substance is not detected (i.e., reported level is less than the LOD), the vessel is considered in compliance with the permit limit. EPA methods 330.1 and 330.2 are two acceptable analytical methods that can regularly achieve a LOD of 0.1 mg/L or lower. Demonstration of limit compliance will rely on on-board documentation of acceptable treatment system operation within manufacturers specifications and compliance audits conducted by the permittee in conjunction with the manufacturer or flag state requirements. Utilization of compliance protocols from outside sources is deemed necessary given the typical short duration of operation in Wisconsin state waters and the inherent difficulties collecting ballast water samples during normal operations. Compliance and monitoring data will be required upon demand by the department for all vessels that visit Wisconsin waters and conduct operations under the ballast water general permit.

When in Wisconsin waters, systems using chlorine dioxide are restricted to a daily maximum (acute) chlorine dioxide effluent limit of 200 µg/L. As with chlorine, a chronic limit was not deemed necessary. This discharge limit was arrived at by first using procedures specified in chs. NR 105 and 106, Wis. Adm. Code (see secondary value section) to arrive at a limit of 225 µg/L, but since the value calculated by the department was near the 200 µg/L (0.2 mg/L) value in use by the EPA, the department decided to adopt the EPA value for consistency. Ballast water treatment systems utilizing chlorine dioxide will be deemed in compliance using the same approach as that for those using chlorine. EPA test method 327.1 or

Standard Method 4500 are options for determining effluent limit concentrations in the treated ballast water.

4.4.2 Department Evaluation and Approval for Other Biocides

If other biocides or water treatment additives are used for treatment, the department will determine the use restriction to serve as a surrogate effluent limit, according to Subsection 4.4.2 of the proposed permit. Biocides other than those explicitly listed in this permit need to be approved by the department prior to discharging in Wisconsin Waters. Use restrictions and effluent limits may be imposed for any biocide based, in part, on the procedures listed in chs. NR 105 and 106, Wis. Adm. Code, department guidance policies on the use of additives for water treatment, EPA criteria, etc. Biocides used in ballast water are also subject to approval under the Federal Insecticide, Fungicide, and Rodenticide Act.

Note: The inclusion of limits for any biocide in the permit does not constitute an endorsement by the department for the use of potentially toxic chemicals; the use of any biocides creates concerns for the health of sailors, corrosion of metal on the vessel and environmental toxicity. Biocides may only be appropriate in limited use, such as disinfection for VHS or other emergency treatment, and the use of chemicals, if necessary, to achieve compliance with permit conditions, should be minimized to the lowest extent possible to avoid secondary impacts on the vessel and environment.

4.5 Ballast Water and Sediment Management Plan

Permittees must maintain a current Ballast Water and Sediment Management Plan on each vessel to comply with USCG requirements, 2013 VGP and the Wisconsin GP. The department intends to review these plans during vessel inspections and, if requested, to be submitted to the department. Sediment records should be maintained in the ballast log book and should include a description of how much sediment was removed, where and when it was removed and the ultimate disposal location of the removed sediment. Typically, the removal of sediment occurs when the vessel is in dry dock, as the sediment is not allowed to be discharged into waters of the U.S. A receipt from the facility removing and handling the removed sediment (which is considered a solid waste in Wisconsin) should also be maintained with the ballast water log book.

4.6 Best Management Practices

Permittees must implement BMPs to help avoid up taking or discharging AIS, sediment or diseases such as VHS during ballasting activities. In addition to following Part 2.2.3 of the 2013 VGP, permittees must annually inspect and maintain ballast water sea chest intakes, minimize sediment uptake, and minimize to the extent practicable, the uptake in VHS infected waters (i.e., the minimum amount needed to meet safety requirements) on all vessels. Ballast water pumps shall also be used during de-ballasting instead of relying on gravity fed or drained ballast water processes to increase shear stresses on AIS passing into or out of a ballast water tank.

4.7 Monitoring

Because of variations among ships and treatment systems, and to allow operational flexibility, ballast water discharge monitoring must be established for each vessel based on the characteristics of the individual treatment system and parameters required to demonstrate compliance with the permit limits. The permittee must prepare a monitoring plan prior to treating ballast water that meets the Part 2.2.3.5.1.1.1 of the 2013 VGP requirements for developing or revising these plans. The department intends to review these plans during inspections and may request copies from the permittees.

4.8 Safety Exemption

In recognition that vessels may be subject to adverse conditions on the water, an exemption is provided to automatically allow the curtailment of permit requirements when severe risks are presented to the safety of the vessel or crew. When the safety exemption is needed the vessel must document the circumstances in the on-board log book. The exemption provision is consistent within the 2013 VGP.

4.9 Record Keeping and Reporting

Record keeping consists of two components: (1) an on-board log book to document activities associated with ballast water uptake and discharge must be kept and made available to the department upon request, and (2) an annual monitoring report and treatment system certification for those vessels with BWTSs onboard. Information on the disposal of sediment cleaned from the vessel may also be requested. To avoid duplicative paperwork, permittees are required to follow the record keeping and submittal requirements included in the 2013 VGP and make the available to the department upon request.

5 Standard Requirements

This section of the proposed permit was updated to reflect the current standard WPDES requirements, including right to entry.

Other Comments:

An antidegradation review for the issuance of this reissued general permit has not been performed because it is not applicable in situations for existing dischargers that may or may not have been previously permitted. The department is in agreement with the EPA fact sheet for the 2013 VGP that says vessels covered should not be considered a new or increased point source discharge, which is what typically triggers an antidegradation review.

Proposed Expiration Date:

March 31, 2030 or when state permits and the 2013 VGP are discontinued upon completion and effective dates of all VIDA required implementation regulations to be promulgated by EPA and the USCG, whichever is sooner.

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