



# WPDES PERMIT

## *STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES*

### **GENERAL PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM**

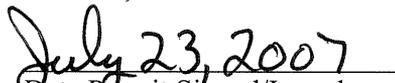
In compliance with the provisions of Chapter 283, Wisconsin Statutes, any facility engaging in

#### **POTABLE WATER TREATMENT AND CONDITIONING**

located in the State of Wisconsin and meeting the applicability criteria listed in this General Permit, is permitted to discharge wastewaters from these operations directly to surface waters of the state and/or indirectly to groundwaters of the state in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

State of Wisconsin Department of Natural Resources  
For the Secretary

By   
Russell Rasmussen  
Director, Bureau of Watershed Management

  
Date Permit Signed/Issued

**PERMIT TERM: EFFECTIVE DATE – August 01, 2007**

**EXPIRATION DATE – June 30, 2012**

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# 1 Applicability Criteria

## 1.1 Activities Covered

This permit applies to wastewater discharges resulting from treatment and conditioning of potable water from the following types of systems:

- filters that are not regenerated with potassium permanganate(KMnO<sub>4</sub>);
- filters that are continuously regenerated with KMnO<sub>4</sub>, or batch regenerated with KMnO<sub>4</sub> and not discharging to a surface water;
- demineralizers (other than sodium or potassium cycle ion exchange softeners);
- lime softeners;
- alum coagulation units;
- granular media filters; and
- membrane filtration units.

## 1.2 Activities Not Covered

This permit does not apply to discharges that meet any of the following conditions:

- Discharges of sludges or precipitated solids from potable water treatment systems;
- Discharges from sodium or potassium cycle ion exchange regeneration units;
- Discharges from filters that are batch regenerated with KMnO<sub>4</sub> and which discharge, or have the potential to discharge, to a surface water;
- Discharges from treatment systems operated to meet drinking water standards for radium or arsenic;
- Discharges to a wetland where the Department has determined that the discharge of pollutants will not meet the wetland protection requirements of ch. NR 103, Wis. Adm. Code;
- Discharges directly to an outstanding resource water as defined in s. NR 102.10, Wis. Adm. Code, or discharges that would lower the water quality of downstream outstanding resource waters;
- Discharges directly to an exceptional resource water as defined in s. NR 102.11, Wis. Adm. Code, or discharges that would lower the water quality of downstream exceptional water resources; and
- Discharges containing substances that will exceed the surface water quality standards and effluent limitations determined according to chs. NR 102, NR 105, NR 106, and NR 207, Wis. Adm. Code, or will exceed the groundwater quality standards in ch. NR 140, Wis. Adm. Code.

# 2 Requirements for All Discharges

## 2.1 Reporting Monitoring Results

Monitoring results shall be reported annually. Less frequent reporting may be granted in writing. Monitoring results shall be reported on a Department Wastewater Discharge Monitoring Report (DMR) or other reporting form or system approved by the Department (including the electronic Discharge Monitoring Report (EDMR) system when available for General WPDES permits). This report is to be returned to the Department as indicated on the DMR form. When submitting a paper DMR, the original and one copy shall be submitted to the return address printed on the form. The permittee shall retain a copy of the DMR, or an electronic file copy if submitting electronically.

The permittee shall report exceedances of any limits for each parameter regardless of monitoring frequency. For example, monthly, weekly, and/or daily limits shall be met even when only monitoring once per month. The permittee may monitor more frequently than required for any parameter.

## 2.2 Dikes and Berms

Dikes or berms constructed as part of a treatment facility shall be designed to have no above ground leakage through or over the outer surface of such dikes or berms.

## 3 Surface Water Discharge Requirements

### 3.1 Monitoring Requirements and Effluent Limitations for Potable Water Treatment System Discharges to Surface Water

Discharges to surface waters shall meet the requirements in this section, including the effluent limitations and monitoring requirements specified in Table 3.1. Samples taken in compliance with the Table 3.1 monitoring requirements shall be representative of the discharge and shall be taken following treatment (if applicable) and prior to discharge to surface waters.

**Table 3.1 – Potable Water Treatment System Wastewater to Surface Water**

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Quarterly	Estimate	See 3.1.1
Suspended Solids, Total	Daily Max	40 mg/L	Quarterly	Composite	See 3.1.2
pH	Daily Min	6.0 mg/L	Quarterly	Grab	See 3.1.3 and 3.1.4
pH	Daily Max	9.0 mg/L	Quarterly	Grab	See 3.1.4
Potassium Permanganate (KMnO <sub>4</sub> )	Daily Max	16 µg/L	Quarterly	Grab	See 3.1.5
Metals and Hardness	Daily Max		Annual	Composite	See 3.1.6

#### 3.1.1 Flow Estimate

Estimate means a reasonable approximation of the average daily flow based on a water balance, an uncalibrated weir, calculations from the velocity and cross section of the discharge, intake water meter readings, discharge water meter readings, or any other method approved by the Department.

#### 3.1.2 Composite Sample

A composite sample means compositing individual flow proportional grab samples collected once per hour for eight hours or the duration of the discharge, whichever is less.

#### 3.1.3 Grab Sample

A grab sample means a single sample taken at one moment of time or a combination of several smaller samples of equal volume taken in less than a two minute period.

#### 3.1.4 pH Monitoring

The daily maximum pH limit for all wastewater discharges, except lime softening, is 9.0 s.u. The daily maximum pH limit for lime softening is 11.0 s.u.

#### 3.1.5 Potassium Permanganate Monitoring

KMnO<sub>4</sub> monitoring is only required for discharges from filters where KMnO<sub>4</sub> is used. The permittee shall demonstrate compliance with the effluent limitation by visually inspecting the discharge sample against a white background under fluorescent lighting. The absence of any pink or purple color shall be considered to be in compliance with the daily maximum effluent limitation. The presence of pink or purple color in the discharge shall be considered an exceedance of the permit limit.

### 3.1.6 Metals and Hardness

Metals and hardness monitoring is only required for discharges from membrane filtration units. The parameters for metals monitoring are total recoverable copper, total recoverable lead, and total recoverable zinc. Metals monitoring will not be required under this permit issuance if two sets of metals data submitted under a previous permit issuance are below the Department’s level of concern, and the water treatment has not changed significantly.

### 3.1.7 Floating Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts.

### 3.1.8 Solids Removal

Solids shall be removed from settling equipment to maintain treatment capacity and efficiency of the system.

## 4 Groundwater Discharge Requirements

### 4.1 Monitoring Requirements and Effluent Limitations for Potable Water Treatment System Discharges to Groundwater

Discharges to groundwater shall meet the requirements in this section, including the effluent limitations and monitoring requirements specified in Table 4.1. Samples taken in compliance with the Table 4.1 monitoring requirements shall be representative of the discharge and shall be taken following treatment (if applicable) and prior to discharge to groundwater.

**Table 4.1 – Potable Water Treatment System Wastewater to Groundwater**

Monitoring Requirements and Effluent Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Annually	Estimate	See 4.1.1

#### 4.1.1 Flow Estimate

Estimate means a reasonable approximation of the average daily flow based on a water balance, an uncalibrated weir, calculations from the velocity and cross section of the discharge, intake water meter readings, discharge water meter readings, or any other method approved by the Department.

#### 4.1.2 Solids Removal

Solids shall be removed from seepage areas, if needed, to maintain the absorptive capacity of the soils and prevent plugging.

## 5 Standard Requirements

### 5.1 NR 205, Wisconsin Administrative Code

The conditions in ss. NR 205.07(1) and NR 205.07(3), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements, except for s. NR 205.07(1)(n), which does not apply to facilities covered under general permits. Selected NR 205.07 requirements are listed below for convenience.

## **5.2 Inspection and Entry**

The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter the permittee's premises, have access to records, and inspect and monitor the discharge as described in s. NR 205.07(1)(d), Wis. Adm. Code.

## **5.3 Recording of Results**

For each effluent measurement or sample taken, the permittee shall record the following information as required in s. NR 205.07(1)(e), Wis. Adm. Code:

- The date, exact place, method and time of sampling or measurements,
- The individual who performed the sampling or measurements,
- The date of the analysis and the individual who performed the analysis,
- The analytical techniques or methods used, and the results of the analysis.

## **5.4 Retention and Submittal of Reports, Records, and Monitoring Results**

The permittee shall retain records of all monitoring required by this permit and report monitoring results as set forth in s. NR 205.07(1)(f) and (r), Wis. Adm. Code. Reports (including storm water inspection reports), records, and monitoring results required by this permit shall be retained by the permittee for the duration of this permit or three years after this information is generated, whichever is longer.

## **5.5 Authorized Signature**

Reports, records, and monitoring results required by this permit shall be signed by the permittee's authorized representative or, in his or her absence, as specified in s. NR 205.07(1)(g), Wis. Adm. Code.

## **5.6 Water Quality Sampling and Testing Procedures**

Sampling and laboratory testing procedures shall be performed as specified in s. NR 205.07(1)(p), Wis. Adm. Code and as set forth below. Sampling and analysis of effluent samples shall be performed as specified in chapters NR 218 and NR 219, Wis. Adm. Code, respectively and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code.

## **5.7 Noncompliance Notification**

As specified in s. NR 205.07(1)(s), Department notification is required within 24 hours of becoming aware of permit noncompliance.

## **5.8 Bypassing**

As specified in s. NR 205.07(1)(u) & (v), Wis. Adm. Code, any bypass or overflow of discharges regulated by this permit around a settling, filtration or treatment system is prohibited unless there were no feasible alternatives to the bypass, the bypass is necessary to prevent severe injury or property damage, and the permittee notified the Department as required in s. NR 205 (1)(u)3, Wis. Adm. Code.

## **5.9 Spill Reporting for Hazardous Substances**

The permittee shall immediately notify the Department of an accidental release or spill of any hazardous substance to the environment as specified in ch. NR 706 and s. NR 205.07(3)b, Wis. Adm. Code. The Department shall be notified via the 24-hour toll free spills hotline (1-800-943-0003).

## 5.10 Planned Changes

The permittee shall report to the Department any facility expansion, production increase or process modifications which will result in new, different or increased discharges of pollutants as set forth in s. NR 205.07(3)(c), Wis. Adm. Code.

## 5.11 Duty to Halt or Reduce Activity

Upon failure or impairment of treatment facility operation, the permittee shall as required in s. NR 205.07(3)(e), Wis. Adm. Code and to the extent necessary to maintain compliance with its permit, curtail production or wastewater discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

## 5.12 More Frequent Monitoring

If the permittee monitors any parameter more frequently than required by the permit, using test procedures specified in ch. NR 204 or 219, Wis. Adm. Code, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report.

## 5.13 Conventions for the Reporting and Use of Low Level Results

The permittee shall use the following conventions when reporting effluent monitoring results:

- non-detected pollutant results shall be reported as < (less than) the value of the analytical method's limit of detection;
- pollutant concentrations equal to or greater than the limit of detection, but less than the limit of quantitation, shall be reported and the limit of quantitation shall be specified; and
- a zero value may be substituted for any non-detected pollutant result for the purposes of calculating an average or a mass discharge.

## 5.14 Continuation of an Expired General Permit

As provided in s. NR 205.08(9), Wis. Adm. Code, the terms and conditions of this general permit shall continue to apply until this general permit is reissued or revoked or until an individual permit is issued for the discharge to which the general permit applied. The status of expired general permits and forms for requesting continued permit coverage can be accessed at <http://dnr.wi.gov/org/water/wm/ww/gpindex/gpinfo.htm>.

## 5.15 Enforcement

Any violation of this permit is enforceable under ss. 283.89 and 283.91, Wisconsin Statutes.

## 5.16 Severability

The provisions of this permit are severable, and if any provisions of this permit or the application of any provision of this permit to any circumstance is held invalid, the remainder of this permit shall not be affected thereby.

## 6 Summary of Reports Due

FOR INFORMATIONAL PURPOSES ONLY

Description	Date	Page
<p><b>Wastewater Discharge Monitoring Report.</b> Reporting of monitoring results is required annually unless specified as quarterly or monthly in a letter from the Department or other appropriate notification. Monitoring results obtained during the specified reporting period (monthly, quarterly but not less than annually) shall be summarized and reported on a Department Wastewater Discharge Monitoring Report or other reporting form or system approved by the Department (including the electronic Discharge Monitoring Report (edmr) system when available for General WPDES permits). <b>This report is to be returned to the Department no later than the date indicated on the form</b> (typically the 15<sup>th</sup> day of the month following the end of the specified reporting period of monthly, quarterly or annually).</p>	<p>no later than the date indicated on the form</p>	<p>1</p>

Report forms shall be submitted to the address printed on the report form.

*Note: More frequent reporting than annually is expected to be specified for discharges with more potential environmental significance or to account for increasing use of advances in information technology (wastewater database capability to generate paper Discharge Monitoring Report Forms for individual facilities covered by General WPDES permits or future anticipated capability for reporting data electronically via the internet using the edmr system).*