



Minnesota
Pollution
Control
Agency

NPDES/SDS Permits – Permitting Process for Surface-water Dischargers

Water/Wastewater (NPDES/SDS) Permits #1.02/July 2002

NPDES/SDS Permit

An NPDES/SDS Permit is a document that establishes the terms and conditions that must be met when a facility discharges wastewater to surface or ground waters of the state. The permit is jointly issued under two programs. The National Pollutant Discharge Elimination System (NPDES) is a federal program established under the Clean Water Act, aimed at protecting the nation's waterways from point and nonpoint sources. In Minnesota it is administered by the Minnesota Pollution Control Agency (MPCA) under a delegation from the U.S. Environmental Protection Agency. The State Disposal System (SDS) is a state program established under Minn. Stat. § 115. In Minnesota, when both permits are required they are combined into one NPDES/SDS Permit administered by the state. The permits are issued to permittees discharging to a surface water of the state.

This fact sheet specifically discusses permitting for domestic-strength wastewater that is discharged into surface waters. (For ground-water discharges see separate fact sheet titled *Water-quality Permit Requirements for Wastewater Discharges to Ground Surface and Subsurface*.)

Requirements for an NPDES/SDS Permit

Any industrial, municipal or private-entity point source which proposes to discharge treated wastewater to surface waters of the state must apply for the permit. It is recommended that the application be submitted at least 180 days prior to starting construction.

Preparing a Permit Application

Application for an NPDES/SDS Permit must be made on a form provided by the MPCA. Copies of the application are available from the MPCA's Customer Assistance Center at (651) 297-2274 or (800) 646-6247, or on the MPCA's Web site at <http://www.pca.state.mn.us/water/permits/index.html>.

Permit requirements vary case by case, and information provided on the application helps the MPCA determine which regulatory requirements to apply in the permit. The application requests information on design flows of the facility, the route which treated wastewater will travel to a surface-water body, and a description of the existing treatment system or the system to be built.





The application may also request information regarding the design influent concentrations for carbonaceous biological oxygen demand (CBOD), total suspended solids (TSS), total phosphorus and ammonia nitrogen, and a description of industrial flows to the treatment works.

It is important to make the permit application as complete as possible. The MPCA staff may contact the applicant during the process of reviewing and developing the permit to get additional information.

Effluent Limitations

The MPCA sets effluent limitations to protect water-quality standards and the designated uses of waters of the state. (Standards and use classifications are specified in Minn. R. 7050 and 7052). All municipal and other point-source dischargers of sewage are required, at a minimum, to provide secondary treatment. Minimum secondary treatment effluent limits include those in the chart below:

Minimum effluent limitations for secondary treatment

<u>Substance or characteristic</u>	<u>Limiting concentration or range</u>
5-day CBOD (CBOD ₅)	25 mg/L
Fecal coliform organisms*	200 organisms/100mL
Total suspended solids	30 mg/L
pH range	6.0 - 9.0 SU
Phosphorus**	1 mg/L

* Generally applicable April 1 through October 31. If chlorine is used to achieve the fecal coliform effluent limitation, dechlorination must also be provided.

** Phosphorus limits are applicable where the discharge of effluent is directly to or affects a lake or reservoir. In addition, removal of nutrients from all wastes shall be provided to the fullest practicable extent wherever sources of nutrients are considered to be actually or potentially detrimental to preservation or enhancement of the designated water uses.

Effluent limits which are more stringent than the minimum secondary treatment requirement may be assigned to a discharge where stream flows are not adequate to protect water-quality standards and designated uses (for example, seasonal ammonia limits). The MPCA considers a number of factors in developing effluent limits for a particular discharge, including the characteristics of the receiving water (use classification, water-quality standards, flow

characteristics) and the discharge (design flow, discharge duration and frequency). Toxic pollutants may also be evaluated to ensure protection of humans, aquatic life, and wildlife. For new or expanded discharges, additional submittals and review may be required as specified in the MPCA nondegradation rules (Ch. 7050.0180, 7050.0185, and 7052.0300 to 7052.0330).

It is important that review of effluent limits be completed as early as possible in the permitting process so that any issues can be addressed in a timely manner. Delays may result if inadequate information is provided or water-quality concerns which need additional evaluation are identified during review.

Public Participation

After all necessary information has been submitted with the permit application, the MPCA will determine if there should be an environmental review process. In some cases, an Environmental Assessment Worksheet (EAW) will be required (it is mandatory if the design flow is greater than 50,000 gallons per day). If a project triggers the EAW process, there will be a 30-day public notice and comment period on the results of the EAW. The comments generated during this process, along with any information collected during the application process, will be considered in developing the draft permit.

After the draft permit is completed, it is put on public notice for 30 days for review by any interested parties. Comments received during this period may result in revisions to the draft permit. When all concerns are adequately addressed, a final permit is issued and its conditions become effective upon issuance.

The process of permit application and public participation can be quite lengthy. To ensure timely permit issuance, applicants should contact the MPCA as early as possible to start the exchange of information.

Certified Operator

The NPDES/SDS Permit also requires that the permittee employ a certified operator to operate the treatment facility. The certification level required for the operator will depend on the complexity of the facility's operation. Proof that a certified operator is on board must be submitted to the MPCA.



Annual Permit Fee

Annual permit fees are charged for most NPDES/SDS Permits. Fees for permits regulating surface-water discharges are found under Minn. R. 7002.0210 to 7002.0310. Annual fees begin once a permit application has been submitted and the fee invoice mailing occurs in the spring each year.

Permit Monitoring Requirements

The permittee will be required in the NPDES/SDS Permit to monitor the treatment system and submit Discharge Monitoring Reports to the MPCA. The monitoring requirements will vary depending on the waste-stream characteristics, size of the facility, receiving water concerns, and the type of treatment being proposed. The following requirements are standard for many municipal and/or domestic treatment facilities currently permitted by the state.

Other parameters which municipal permittees frequently are required to monitor include phosphorus and ammonia nitrogen. The monitoring listed below will vary depending on site-specific information. The chart is intended to provide an example of what to expect in terms of monitoring.

Typical monitoring requirements

Monitoring location	Parameter	Frequency
<u>Influent</u>	Flow	daily
	CBOD	monthly
	TSS	monthly
	pH	monthly
	Total phosphorus	monthly
<u>Effluent</u>	CBOD	monthly
	TSS	monthly
	pH	monthly
	Dissolved oxygen	monthly
	Chlorine residual	daily
	Fecal coliform	monthly
	Total phosphorus	monthly
<u>Emergency incident monitoring</u>	Flow	(estimated total gallons)
	CBOD	2x/week during incident
	TSS	2x/week during incident
	Fecal coliform	2x/week during incident

For More Information

For further information on NPDES/SDS Permits, contact the MPCA's Customer Assistance Center at (651) 297-2274 or (800) 646-6247, or write the MPCA, Customer Assistance Center, 520 Lafayette Road North, St. Paul, Minnesota, 55155.

MPCA Web site: <http://www.pca.state.mn.us>