

NPDES permit and PolyMet requirements

PolyMet applied for an NPDES/SDS (National Pollutant Discharge Elimination System/State Disposal System) permit to construct and operate a wastewater treatment and disposal system and to discharge treated wastewater from its proposed copper and nickel mining operation.

Draft PolyMet permit requirements

The MPCA reviewed the PolyMet permit application and developed a draft NPDES/SDS permit with requirements specific to the proposed facility.

Weekly, monthly, quarterly, and annual monitoring to the MPCA at 167 monitoring locations for a wide variety of parameters specific to copper and nickel mining.

Contains various special conditions to address issues specific to its proposed project. The special conditions in the draft permit include:

- Authorized discharges
- Management of water during construction
- Discharge prohibitions
- Performance monitoring requirements for the wastewater treatment system
- Model verification and evaluation
- Annual groundwater evaluation
- Annual comprehensive performance evaluation
- Various notification requirements
- Authorization to operate a hydrometallurgical residue facility

NPDES background

Under the Clean Water Act, any discharge of pollutants through a point source into a lake, stream, wetland, and other surface water requires a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit translates the general requirements of the Clean Water Act into specific provisions tailored to the operations of each facility discharging pollutants

State Disposal System (SDS) permits are used in Minnesota to regulate the construction and operation of wastewater disposal systems, including land treatment systems. In Minnesota, NPDES and SDS permits are often combined. Together, NPDES/SDS permits establish specific limits on what can be discharged, monitoring and reporting requirements, and other provisions to protect Minnesota's surface and groundwater quality for a variety of uses, including drinking water, fishing, and recreation.

An NPDES/SDS permit for an individual industrial facility may cover a number of different waste types and activities, including industrial process wastewater, domestic wastewater, contact and non-contact cooling

water, stormwater, contaminated ground water pump outs, mine pit dewatering, water supply, treatment backwash, and wastewater treatment sludges.

The Minnesota Pollution Control Agency (MPCA) is authorized to issue NPDES/SDS permits for existing and proposed wastewater discharges and currently regulates approximately 1,500 permitted facilities through these permits.

Who must obtain an NPDES permit?

Cities, industries, businesses, and other privately owned facilities that discharge wastewater directly to surface waters must obtain an NPDES permit. The Clean Water Act requires all point source discharges from mining operations, including discharges from associated impoundments, to be authorized under an NPDES permit.

What does an NPDES permit include?

NPDES permits incorporate applicable federal and state rules and laws. They lay out requirements the permittee must meet in order to discharge (NPDES) or dispose of (SDS) wastewater. NPDES permits include facility-specific requirements such as the facility description, map and location of the facility, limit and monitoring requirements, special conditions, and standard permit conditions.

How do NPDES permits protect water?

An NPDES permit will generally specify an acceptable level of a pollutant in a discharge (for example, a certain level of suspended solids). The permittee may choose which technologies to use to achieve that level. NPDES permits make sure that a state's mandatory standards for clean water and the federal minimums are being met.

Permits are regularly reviewed and updated as they expire, allowing the MPCA to incorporate new information about the impacts of pollutants to the environment in subsequent permits. Permits are enforced through a combination of self-reporting (reports to the MPCA, U.S. EPA, or both) and compliance monitoring.

