

General Permit #9 – Dewatering and Geothermal

Overview of Permit (based on 4/29/15 draft)

The Iowa Department of Natural Resources (DNR) is developing a new general permit, General Permit #9. This permit will extend permit coverage under the National Pollutant Discharge Elimination System (NPDES) to discharges from dewatering activities and household geothermal systems.

This document provides a summary of the draft permit. It also explains why DNR is pursuing the general permit.

Description of Regulated Activities

This permit extends permit coverage to discharges from excavation dewatering, where groundwater is removed from trenches and other excavations. It also authorizes discharges from dewatering to facilitate construction activity.

In addition, the permit authorizes discharge to surface waters from residential open-loop geothermal heating and cooling systems. Discharges from geothermal systems that do not reach surface waters are already exempt under Iowa rules.

Case for a General Permit

Currently, Iowa does not have a general permit that specifically authorizes discharges from construction and excavation dewatering. General Permits #1, #2, and #3 allow discharge of uncontaminated groundwater mixed with storm water. However, those permits have a very narrow definition of uncontaminated groundwater. Many dischargers may not wish to prove that their discharge meets the definition. In addition, the site would have to meet the eligibility requirements of either General Permit #1, #2, or #3.

Iowa also does not have a general permit that authorizes discharges from geothermal systems.

If the discharge is not covered under another general permit, the discharger can obtain an individual permit. Obtaining an individual permit requires an investment of time and money. The investment is disproportionate to the impact these discharges usually have on the environment.

These permits benefit dischargers by providing them a permit shield without the time and cost of obtaining an individual permit. It also provides them with guidance for minimizing the impact of these discharges on water quality.

These permits benefit the environment by providing requirements and guidance for conducting these discharges in a way to avoid negative impacts on water quality.

These permits benefit the DNR by reducing the staff time necessary to approve these discharges. That staff time can then be spent on higher-risk discharges.

Notification Requirements

A Notice of Intent (NOI) is required in the following situations:

- Chemicals will be added to the discharge (such as flocculants to aid in solids settling);
- Dewatering will occur where the soil may be contaminated by toxic or hazardous pollutants;
- Dewatering will occur within 1,000 feet of a contaminated groundwater plume.

The NOI must be submitted at least 30 days before discharge is scheduled to commence. If the discharge may reach a water of the United States, the discharger must also complete and submit an Antidegradation Alternatives Analysis with the NOI. The Antidegradation Alternatives Analysis requires 30 days of public notice prior to being submitted to the department.

The permit allows for delayed NOI submittal in the case of emergency dewatering.

Operation and Monitoring Requirements

All Dischargers

All dischargers must conduct a daily visual observation of the discharge. A log of these observations must be kept on-site.

Discharges that do not reach a surface water¹

If the discharge will be to the land surface and will not reach a surface water, the discharger must comply with several requirements. These requirements will prevent soil erosion and impacts to surface waters. The requirements include not discharging to saturated or frozen ground, not discharging to a slope greater than 5%, and not allowing the discharged water to pond.

Discharges that reach a surface water

All dischargers to surface waters must use comply with several operating requirements. These requirements will prevent soil erosion and contamination of the discharge. Dischargers must also ensure that the discharges meet narrative water quality standards. Dischargers to surface water that are required to submit an NOI must also develop a best management practices (BMP) plan.

Permit Summary

Discharge Type	Receiving Area	Contamination or Chemicals?	Notification	Requirements	Monitoring	Duration of Coverage
Dewatering	Ground surface	Yes	NOI	See Part III of permit	Daily visual observation	Dates given on NOI
		No	None		Daily visual observation	First through last days of discharge
	Surface water or storm sewer	No	None	See Part II of permit	Daily visual observation	First through last days of discharge
		Yes	NOI and AAA	See Part II; BMP Plan	Daily visual observation	Dates given on NOI
Household geothermal	Ground surface	Exempt from permit [567 IAC 54.3(1)“d”]				
	Surface water or storm sewer	N/A	None	None	None	Issuance date of permit until permit is reissued

¹ For purposes of this permit, discharges that reach a storm sewer are presumed to reach a surface water.