

General Permit #8 – Hydrostatic Testing, UST Ballasting, and Potable Water Line Discharges

Overview of Permit (Based on 5/1/15 draft)

The Iowa Department of Natural Resources (DNR) is developing a new general permit, General Permit #8. This permit will extend permit coverage under the National Pollutant Discharge Elimination System (NPDES) to discharges from hydrostatic testing, underground storage tank (UST) ballasting, and potable water lines.

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

Description of Regulated Activities

Hydrostatic testing is the use of water to verify the integrity of pipes, tanks, and other containers. The water used may come from a private well, a surface water, or a public water supply. Depending on the size and number of the containers tested, this can use anywhere from a few thousand gallons to several million gallons per test.

Underground storage tanks made of fiberglass are relatively lightweight. To facilitate placement of the tanks and hold them in place while the excavation is filled, the tanks are filled with water. Commonly these tanks are about 20,000 gallons and a new gas station will have three tanks. Water often comes from a public water supply but could also come from a private well.

Potable water lines and hydrants must be flushed with water periodically. This water usually contains chlorine and may contain sediments flushed out of the line. When pipes are repaired or installed, they are disinfected with high concentrations of chlorine.

Case for a General Permit

Currently, Iowa does not have a general permit that authorizes discharge from hydrostatic testing or UST ballasting. Discharges from potable water sources mixed with storm water are allowable under General Permits #1, #2, or #3. They are also allowable under municipal separate storm sewer (MS4) permits. However, most public water supplies are not eligible for those permits.

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

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

Eligibility Criteria

Each discharge to a surface water of the state must meet certain eligibility criteria.¹ The criteria vary depending on whether the container is new or used and what product was in the container. Table 1 shows the criteria. Dischargers must be able to demonstrate that their discharge meets the criteria. The demonstrations can be engineering estimates, samples from a previous similar discharge, or samples taken prior to the discharge.

Parameter	New (or used for water)	Used (natural gas)	Used (petroleum)
pH	6.5 minimum – 9.0 maximum	6.5 minimum – 9.0 maximum	6.5 minimum – 9.0 maximum
Sulfate	1,514	1,514	1,514
Chloride	629	629	629
Total Suspended Solids	45	45	45
Oil and Grease	15	15	15
Iron (total)	1.0	1.0	1.0
Polychlorinated biphenyls (PCBs)	--	0.002	--
Benzene	--	--	0.51
Toluene	--	--	2.5
Ethylbenzene	--	--	2.1
Xylenes	--	--	10
Total Residual Chlorine (TRC) ¹	0.019	0.019	0.019
Aluminum (total) ²	0.75	0.75	0.75
Methyl tertiary butyl ether (MTBE)	--	0.04	0.04
Lead (total) ³	--	--	0.0197

Units are in mg/L with the exception of pH, which is in standard units

1. TRC criterion only applies if chlorinated water is used.
2. Aluminum criterion only applies when alum is used to settle solids from the discharge or source water or when the container is made of aluminum.
3. Lead criterion only applies if the container has been used to transport or store leaded gasoline.
4. TEH criterion only applies if the container has been used to transport or store diesel fuel.

The permit will not establish eligibility criteria for discharges to the ground surface.

Notification Requirements

Most dischargers will not have to submit anything to DNR to obtain coverage under the permit. However, certain dischargers will be required to submit a Notice of Intent (NOI).

Discharge to Surface Water of the State

An NOI will be required if one or more of the following apply:

- the discharge is over 80,000 gallons,
- the discharge will have chemicals (other than chlorine) added,

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

- the discharge will last for more than 90 consecutive days, or
- the container being ballasted or tested was used for a fluid other than water, natural gas, or petroleum products.

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 DNR.

Discharge to Ground Surface

An NOI will be required if chemicals other than chlorine have been or will be added to the water.

Operation Requirements

Dischargers must conduct a daily visual observation of the discharge.² A log of these observations must be kept on-site. Containers used for natural gas or petroleum products must be cleaned prior to hydrostatic testing.

Discharges that do not reach a surface water of the state

If the discharge will be to the land surface and will not reach a surface water of the state, 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.

Discharge to a water of the state

All dischargers to surface waters of the state 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.

Summary of Permit Requirements

Table 2: Summary of Permit Requirements							
<u>Receiving Area</u>	<u>Container</u>	<u>Volume</u>	<u>Duration</u>	<u>Chemicals Added</u>	<u>NOI</u>	<u>Eligibility Requirements</u>	<u>Operating Requirements</u>
Ground Surface	All	All	All	No	No	No	See Part II
				Yes	Yes	No	
Water of the State	New or used for water, natural gas, or petroleum	<80,000 gallons	≤90 days	No	No	Yes	See Part III; BMP Plan
			>90 days	Yes	Yes	Yes	
		>80,000 gallons	All	All	Yes	Yes	
		Used for other fluid	All	All	All	Yes	

² No monitoring is required for discharges resulting from water line disinfection, flushing, or testing.