



General Permit #5 Questions and Answers

1. Q. Do pH measurements at a site need to be done by a certified laboratory or can they be done by anyone?

A. pH measurements are not required to be done by a certified laboratory. See permit Standard Condition #17. They must be done immediately upon sample collection which generally means within 15 minutes of sample collection. EPA approved test methods specified in 40 CFR part 136.3 must be used. If measurements are made using a pH meter the meter must be properly calibrated according to the manufacturer's instructions.

2. Q. New and expanded sand and gravel facilities are required to use hydraulic dredging whenever practical and affordable. What type of dredge is the term "hydraulic" referring to?

A. For purposes of General Permit #5 the term hydraulic dredge means a pipeline suction dredge that sucks dredged material through one end, the intake pipe, and then pushes it out the discharge pipeline directly onto the disposal site.

3. Q. When does a surface mine or quarry that is continually expanding and changing discharge points need to submit a new Notice of Intent?

A. Whenever the expansion results in a "new discharge" as defined in the permit.

4. Q. Standard Condition #17 requires that records of all monitoring activities and results be maintained for a minimum of three years, including strip chart recordings for continuous monitoring instrumentation and calibration and maintenance. Do quarry operators do continuous monitoring?

A. General Permit #5 does not require continuous monitoring and the department is not aware of any quarry operators that currently do continuous monitoring. If continuous monitoring instrumentation were to be installed (e.g. a continuous recording pH meter), strip charts or other recordings of measurements made by the instrument must be retained.

5. Q. What is expected from a facility when a sample produces an analytical result between 30 and 45 mg/L and only that one sample was required since the site is only conducting quarry dewatering and no washing is occurring?

A. Compliance with the monthly average limit is required regardless of the number of samples collected in a given month. The permit specifies a minimum testing frequency of once per month or once per year depending on the nature of the discharge. However, facilities can sample as often as they like. If an initial sample result exceeds 30 mg/L, a facility can collect additional samples during the course of the month and, if the results of those samples are less than 30 mg/L, will serve to lower the monthly average.

6. Q. How were the background numbers that were used to establish the 1,514 mg/L in-stream standard established?

A. The sulfate water quality standard in the draft general permit was derived using a statewide default stream hardness of 200 mg/L (as CaCO₃) and a statewide default chloride value of 34 mg/L. Using these values with the formula in the right hand column of Table 4 of the rules gives a sulfate standard of 1,514 mg/L (actually 1,513.6953).



7. Q. Must a quarry obtain coverage under General Permit #2 every time overburden is removed to allow continued mining to occur?

A. There are a number of different situations that arise with regard to permitting of storm water discharges from mines and quarries but we believe most of them are addressed in the following:

- 1) All of the storm water at a site, including storm water runoff from areas disturbed while removing overburden, runs into the mine or quarry and is discharged when dewatering occurs. This storm water is covered by General Permit #5 (Part I.A.) and coverage under another general permit is not required.
- 2) At least some of the storm water from disturbed areas does not run into the quarry before being discharged. This storm water is not covered by General Permit #5 and must be authorized by General Permit #2 or #3.
- 3) More than one acre will be disturbed when a new mine or quarry is first being developed. There is no mine or quarry yet so runoff, if any, does not run into then mine or quarry before being discharged. Storm water discharges at this stage must be authorized by General Permit #2 or #3.
- 4) When a site is authorized to discharge storm water under General Permit #2 or #3 additional coverage is not required provided the General Permit authorization is not discontinued or allowed to expire.

8. Q. Storm water permitting requirements are further complicated by Part VI definition of “Storm water discharge associated with industrial activity” part (x) where is states, “Construction activity including clearing, grading and excavating activities, except operations that results in the disturbance of less than five acres of total land.

A. The definition of storm water discharge associated with industrial activity was amended in 2003, after the current General Permit No. 5 was issued. The draft General Permit No. 5 will be corrected to reflect that change after the public comment period. Paragraph (x) of the definition of Storm water discharge associated with industrial activity will be changed to “Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than one acre of total land area which are not part of a larger common plan of development or sale.”

9. Q. Standard Condition #17 in effect it says wastewater, which is defined as the discharge from a quarry, must be analyzed by a certified lab but the other testing listed including pH, chlorine etc., doesn't have to be tested by a certified lab. That is confusing and needs to be addressed. Just what wastewater must be tested by a certified lab? Further, when does wastewater from the quarry as a discharge not have to be tested by a certified lab? Do we need a certified lab to give us the results of the D.O., pH, and chlorine?

A. State rules, which are only summarized in Standard Condition #17, require that all parameters for which testing is required by a wastewater discharge permit must be analyzed by a laboratory certified in accordance with Chapter 83 of the Iowa Administrative Code. However, routine, on-site monitoring for pH, temperature, dissolved oxygen, total residual chlorine, settleable solids, physical measurements such as flow and depth, any test that must be performed immediately upon sample collection (e.g.), and operational monitoring specified in a permit, do not need to be analyzed by a certified laboratory.

General Permit #5 requires an initial test for sulfate and periodic testing for total suspended solids (TSS) and pH. The tests for TSS and sulfate need to be performed by a certified laboratory while pH tests do not (See response to Question #1). General Permit #5 does not require testing for any parameters other than TSS, pH and sulfate.