

WDEQ Guidance Document for Benchmark Sampling and Reporting Under the Wyoming Industrial General Permit For Storm Water Discharges



Purpose of this document

This document provides supplemental guidance to facility operators who are required to sample storm water runoff under the Industrial General Permit for storm water discharges. This document is not a substitute for the permit requirements. You should thoroughly review and understand the permit requirements.

This document is also not an exhaustive description of specific sampling procedures, sample preservation, holding times, or chain-of-custody procedures. You should consult with your laboratory for these specifics. All samples must be collected and analyzed in accordance with federal regulation at 40 CFR Part 136.

Who is required to benchmark sample? (permit Part 9.3)

The Wyoming Industrial General Permit (IGP) specifies four industrial sectors required to conduct yearly sampling of their storm water runoff. The sectors include facilities that produce timber products; facilities that produce clay, concrete or gypsum products; metal mining facilities; scrap and/or waste recycling sites; and auto salvage yards. Part 9.3 of the permit describes affected facilities in more detail.

The constituents that any particular facility must sample for are detailed in Part 9.3. Constituents vary by industry sector.

Sampling Frequency (Part 9.1.4)

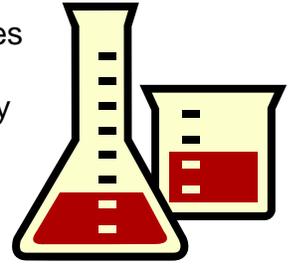
All industries required to sample storm water runoff in Part 9.3 must collect and analyze samples once each year. Sampling as early as possible within the sampling period is recommended. An early storm event may be the only opportunity for sampling.

Only one sample is required each year. However, if additional samples are collected all results must be reported. The industry-specific reporting form includes space to report additional results, if collected. All results collected within the sampling period should be reported individually and as an averaged value.

Choosing a Laboratory

You should select an analytical laboratory before sampling. Discuss with your lab the parameters you will be testing. Make sure the laboratory you select:

- Is familiar with the storm water program and will conduct all analyses in conformance with 40 CFR Part 136.
- Will provide sampling bottles, packaging materials, chain-of-custody forms, and coolers as needed.
- Will provide information for sample collection, preservation, and shipping.
- Will conduct required tests before holding times expire.



Storm Event Criteria (Part 9.1.5)

All samples must be collected from a storm event that is at least 0.1 inch in magnitude and that occurs at least 72 hours after a previous storm of at least the same magnitude. Runoff may be from either a rain or snow-melt event.

Area (Part 9)

Only runoff from areas where industrial activity occurs need be sampled. These are areas where industrial activities occur, industrial materials or wastes are stored, materials handling areas, and so on (see permit 2.17 for a more detailed description). If there are multiple drainage areas that leave the facility through separate outfalls then each outfall will need to be sampled. See the next section for exceptions.

Representative Discharges (Part 9.1.7)

If your facility has more than one outfall, one sample may be designated as representative of more than one outfall. This may be done where discharges from separate drainage areas are expected to be similar. A determination that discharges from one outfall is representative of other outfalls is made primarily on the basis of the similar materials and activities occurring from one drainage area to another. Other factors such as drainage area size and slope should also be considered. The decision to consider an outfall representative of other outfalls must be documented and kept with facility storm water pollution prevention plan (SWPPP).

Outfalls

Facilities in this part of the country often do not “channel” or “pipe” storm water offsite. In many instances storm water may run off a site over a paved, graveled, or compacted area. This type of runoff is still considered an outfall and storm water leaving a facility in such manner must still be sampled. Sampling sheet flow can pose some problems. Discuss with your laboratory the advisability of using a flat-bottomed scoop or some other method to collect samples.

Staffing

The person (or persons) who will be sampling should be identified well ahead of time so they can become familiar with the procedures for sampling.

Collecting Grab Samples

Recommendations for collecting grab samples include the following procedures. Work with your lab on procedures for your specific site. When possible, a sample must be collected within the first 30 minutes of the start of a storm event, but in no case later than within the first 60 minutes (Part 9.1.5).

- Label containers before the sampling event.
- Use the right container for the constituents being tested. Be sure the containers are clean.
- Take a cooler with ice to the sampling point.
- When possible, take the grab from the horizontal and vertical center of the discharge.
- Avoid stirring up bottom sediment or collecting uncharacteristic floating debris.
- Hold the container so the opening faces upstream.
- Avoid touching the inside of the container to prevent contamination.
- If taking several grab samples, keep them separate and clearly labeled.



Visual examination (Part 9.1.9)

Facilities required to monitor in Part 9.3 must also visually examine each sample. Look for and describe the sample color, odor, and clarity. Also note the presence of solids, foam, oil sheen, or other obvious indicators of pollution. A brief description is required on the annual reporting form.

Other Sampling Considerations

Samples from holding ponds. Samples from holding ponds should only be taken as water flows out of the pond. If the pond does not discharge, there is no need to sample.

Hazardous conditions. Do not sample during hazardous conditions (lighting, flooding, etc.). Part 9.4.1 allows a temporary waiver from sampling when conditions are dangerous. Sampling must occur as soon as conditions are safe to do so.

Report monitoring form. Only one copy of the industrial Storm Water Monitoring Report is provided. Please make enough copies to use throughout this permit term which runs until August 31, 2012. One report must be completed for each outfall for each monitoring period (January through December). The monitoring report for each calendar year is due on February 28th of the following year. Be sure to submit signed reports whether or not you were able to sample runoff. (See “Representative Discharges,” Part 9.1.7, for exceptions to reporting on every outfall.)

No precipitation. If there is no “qualifying” rain or snow melt event during any given sample period, then no sampling is required. However, reporting for that period is still required. Complete the Monitoring Report for the period and note in Part B that the facility did not discharge. Note in the description that no qualifying precipitation event occurred.

Precipitation, but no runoff. It is not uncommon that a 0.10 or 0.20 inch storm event may occur, but still not result in runoff from a site. If no discharge occurs, then no sampling is necessary. Note on the monitoring report that no sampling was possible and submit the form to this office by February 28th of the next calendar year.

References and Additional Information

Colorado Department of Public Health and Environment, 1996, CDPS Stormwater Sampling Guidance Document

Institute of Scrap Recycling Industries, Inc., 1996, Storm Water Guidance Manual: Scrap Processing and Recycling Facilities, Washington, D.C.

U.S. Environmental Protection Agency, 1999, Storm Water Management Fact Sheet: Visual Inspection, EPA 832-F-99-046

U.S. Environmental Protection Agency, 1992, NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001

