



**pennsylvania**

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF MINING PROGRAMS

**Standard Operating Procedure (SOP)<sup>1</sup> for District Mining Operations  
Enforcing NPDES Permit Requirements for Mining Operations  
SOP No. BMP-004  
June 2013**

The NPDES program for mining is implemented under the authority of Pennsylvania's Clean Streams Law and the Federal Clean Water Act, the Surface Mining Conservation and Reclamation Act, the Noncoal Surface Mining Conservation and Reclamation Act, Chapters 77, 86, 87, 88, 89, 90, 91, 92a, 93, 95, 97, 101, 102 and 105 of the Department's Rules and Regulations, EPA's NPDES Program Regulations 40 CFR 122-125, EPA's Effluent Limitation Guidelines 40 CFR 401, 434 and 473.

The Department implements the NPDES permitting and enforcement program under delegation from EPA through a Memorandum of Agreement (MOA). The MOA includes a section on enforcement. The MOA lists the following elements of NPDES permit compliance review:

- Determination whether the required self-monitoring reports were submitted
- Review of the reports for completeness and accuracy
- Determination whether the permit conditions and enforcement schedules are being met.

The purpose of this SOP is to facilitate consistent and equitable procedures for enforcement staff and technical staff who are responsible for reviewing and evaluating NPDES data and assessing NPDES-related violations at mining sites. This SOP applies to all active mining sites (coal and industrial minerals) with NPDES permits.

## **I. NPDES Permits**

NPDES permits are issued to a point source discharger to surface waters and are a key component of nearly all mining activity permits. NPDES permits serve several important purposes:

- NPDES permits generally authorize the permittee to discharge to waters of the Commonwealth after appropriate treatment, best management and/or pollution prevention practices.

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<sup>1</sup> The process and procedures outlined in this Standard Operating Procedure (SOP) are intended to supplement existing requirements. Nothing in the SOP shall affect regulatory requirements. The process, procedures and interpretations herein are not an adjudication or a regulation. There is no intent on the part of DEP to give the rules in this SOP that weigh or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

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- NPDES permits require the permittee to achieve an acceptable quality of effluent prior to discharge.
- NPDES permits specify the type and frequency of self-monitoring and reporting, which the permittee must perform in order to demonstrate to the Department that compliance with discharge limitations is being achieved.
- Where applicable, NPDES permits may establish a schedule for achieving compliance with discharge limitations and other requirements.
- NPDES permits generally serve as the basic legal reference document when it becomes necessary to take enforcement actions against the permittee.

Ensuring compliance with the provisions and effluent limits of the NPDES permit is an integral part of the enforcement responsibilities of compliance staff within each District Mining Office, particularly mine inspectors and mine inspector supervisors. Key NPDES compliance-related responsibilities are outlined as follows:

Permit Writers: NPDES requirements are site-specific and will be established in the NPDES permit. It is important that permit requirements are clearly understood by compliance staff to ensure proper implementation and monitoring. At initial mine permit issuance and at NPDES, related mine permit revisions, permit writers will provide a briefing to appropriate inspection staff regarding site-specific NPDES permit requirements. Briefings may be face-to-face or written. However, all briefings must address site-specific NPDES requirements including, at a minimum; any applicable TMDL-related matters, effluent characterization sampling requirements, Water Quality Based effluent limits, and self-monitoring requirements. Additionally, the briefing should focus on any exceptional or unusual NPDES permit requirements at the site, such as requirements for composite sampling or the existence of reporting requirements related to permit-specific compliance schedules.

Administrative Staff: Administrative staff within District Mining Offices may be involved in tracking duties associated with NPDES permit compliance. The DMR submission requirement should be tracked using the Self-Monitoring module of eFACTS. Typically, the DMRs are submitted with the hydrologic monitoring reports on a quarterly basis.

For permits issued from the California DMO, this tracking is the responsibility of the DMO that does the inspections.

### Surface Mine Conservation Inspector (SMCI):

- SMCIs must read and understand NPDES permit requirements for their sites, including the self-reporting required of the permittee and requirements routinely associated with general permits (see Section IV).
- SMCIs will sample all discharging NPDES outfalls during each complete inspection.
- SMCIs will review Discharge Monitoring Reports (DMRs) within 30 days of the receipt of the data from the permittee. Documentation of the data review is required with each complete inspection.

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- SMCI's will identify NPDES effluent limit violations by comparing DMR data with the NPDES permit limits.
- SMCI's will document the results of their DMR review on inspection forms as part of complete inspections.
- If effluent limit or other NPDES permit-related violations are detected during the SMCI's DMR review, the SMCI will initiate an investigation into appropriate compliance action, determine if the permittee provided mandatory non-compliance reports related to the violation (see Section III below), and notify the SMCI Supervisor by forwarding a copy of the inspection report and a copy of the DMR along with an explanation of the nature of the violation, including an evaluation as to whether the problem may be chronic.

Surface Mine Conservation Inspector Supervisor:

- SMCI Supervisors will review all inspection reports to ensure that SMCI's are focused on NPDES sampling and DMR review responsibilities.
- SMCI Supervisors will assist SMCI's in providing input for assessing penalties when NPDES violations are identified.
- If a pre-issuance meeting has not been held, then SMCI Supervisors will ensure that a post-issuance meeting is scheduled and held for new permits within 60 days of issuance and that NPDES requirements are discussed and emphasized with the permittee at the meeting.
- SMCI Supervisors will coordinate with technical staff to arrange for technical evaluations and input to correct circumstances when NPDES outfall sampling indicates chronic treatment system problems at mine sites,
- SMCI Supervisors will assist the technical staff with the review and assessment of NPDES-related sampling (DMR and DEP sampling data) at NPDES permit renewal.

Technical Support staff:

- DMO Technical staff (hydrogeologists /engineers) will provide technical support as needed to assist compliance staff in resolving chronic treatment system problems at mine sites.
- DMO Technical staff will provide technical support to compliance staff regarding interpretation of NPDES sampling protocols and sample results as needed.
- DMO Technical staff will review effluent characterization data submitted by applicants to comply with the monitoring requirement.
- DMO Technical staff will review and assess the NPDES-related sampling (DMR and DEP sampling data) at NPDES permit renewal. The results of this NPDES permit renewal assessment must be documented in writing and must be incorporated into the permit file. This review must include a review of the data (DMR, HMR and DEP samples) from the previous five years to ensure that NPDES sampling and self-reporting requirements are being met and to determine if any revisions to the NPDES permit are needed, particularly with respect to water quality standards.

## **II. NPDES-related violations and civil penalties:**

NPDES-related violations, whether documented through self-reported sampling (DMRs) or through DEP sampling, and any related civil penalty assessments are to be cited and calculated consistently using procedures outlined in the following Mining Program guidance documents:

- *Coal and Industrial Minerals Mining Inspections (TGD 562-3000-102)*
- *Coal Civil Penalties (TGD 562-4180-306)*
- *Compliance/ Enforcement Procedures (TGD 562-4100-301)*
- *Noncoal Civil Penalty Assessments (TGD 562-4180-101)*
- *Noncoal Compliance/Enforcement Procedures (TGD 562-4180-102)*
- *Alternative Enforcement (TGD 562-4100-307)*

Additionally, the Department's Water Program document, titled *Guidance for Civil Penalties Calculations for Effluent Violations* (TGD 362-4180-001) contains a standardized methodology for calculating civil penalties for non-mining NPDES permit-related effluent violations. This guidance considers multiple contributing factors (magnitude and duration of the discharge and the Chapter 93 designation of the receiving stream) in its civil penalty calculation procedure and may be used as a reference, in conjunction with the mining program guidance listed above, to ensure uniform and equitable development of penalties.

Violations noted based on the review of DMR data should be addressed in the same way as violations identified through Department sampling. For example, repeated violations are subject to the pattern of violation process identified in the Compliance/Enforcement Procedures TGD.

## **III. Permittee's Self-Reporting Responsibilities (DMRs and Non-compliance reports):**

NPDES permits require notification of DEP by the permittee whenever there is noncompliance. Operators holding mining-related NPDES permits typically sample outfalls monthly and provide quarterly reports (DMRs) to DEP. NPDES permits may include effluent limits expressed as "instantaneous maximum," "daily maximum," and "monthly average." DMR data should provide sampling results consistent with the required NPDES permit frequencies and report results in a manner consistent with the permit's terminology.

NPDES permits require sampling to be conducted while a facility is discharging. DMRs are required to be submitted even if the facility is not discharging. DMRs should reflect a "No discharge" result under these circumstances. However, "No discharge" results should be scrutinized. If the SMCI is aware of a discharge from a facility, but a "No discharge" sample result is reported, the SMCI must address the issue with the permittee to ensure that sampling is regularly coordinated with discharge events.

Particular attention is required with respect to alternate effluent limits. For example, most coal mine storm water controls are subject to the group B limits when they discharge in

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response to a storm less than the 10-year, 24-hour event. The Group B alternate limits include settleable solids, which must be monitored and reported under these conditions.

Permittees are required to review their sampling data, and when warranted, to provide non-compliance reports to DEP. Non-compliance reports documenting violations that do not endanger health or the environment may be submitted with DMR reports. In cases where violations pose a threat to health or the environment,<sup>2</sup> permittees must verbally report the incident within 24 hours from when they become aware of the circumstances to DEP and then submit a written non-compliance report within five days of the time the permittee becomes aware of the circumstances. The written report may be waived on a case-by-case basis if an oral report has been given within 24 hours [40 CFR 122.41(1)(6)]. Non-compliance reports must include the date of the violation, the date(s) of any related sample(s), the parameter name, the permit limit and units, the limit type ("Min," "Max," "Mon Avg," etc.), the measured result and units, the cause of the violation and the corrective action taken. Failure to provide timely non-compliance reports is an NPDES permit violation, which must be cited and is considered a separate violation.

### **IV. Enforcement under the GP-104**

The General NPDES Permit for Stormwater Discharges Associated with Mining Activities (GP-104) was developed to provide an alternative for mine operators to comply with the regulatory requirement that any mining earth disturbance greater than 1 acre requires NPDES permit coverage. The GP-104 includes a number of requirements to be enforced. These include the implementation of the E & S plan (usually by selected BMPs), notice of intent to renew coverage at least 90 days before the expiration of the coverage, and implementation of a PPC plan.

### **V. Non-discharge Alternatives**

With limitations imposed under TMDLs, non-discharge alternatives have become more common. Generally, in order to qualify as a non-discharge alternative, no discharge is allowed under any flow conditions. Therefore, it is important to assure that the required structures are installed in accordance with the approved plans. In addition, the facility should be checked during each inspection to make sure that no discharge has occurred.

### **VI. Flow Monitoring**

Flow data is necessary to assure compliance with the TMDLs, since TMDLs are load based. Flows should be measured whenever possible during the routine sampling conducted by the inspector. These flows should be compared with DMR data. Flow data is also useful in cases where enforcement action is taken to provide support for civil penalty calculations.

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<sup>2</sup> When permittees are uncertain whether an incident constitutes non-compliance that may endanger health or the environment, they must notify DEP verbally as soon as possible after becoming aware of the incident.