Maryland Department of the Environment

11-CM General Permit

NPDES No. MDG 85 Applies to Discharges From Surface Coal Mines and Related Facilities

Overview

Why Are We Renewing This Permit?

- Effective May 1, 2014, the Department has reissued the State/NPDES (National Pollution Discharge Elimination System) General Permit for Discharges from Surface Coal Mines and Related Facilities with important revisions to the previously issued permit **No. 06CM**.
- Some of these revisions pertain to: inclusion of surface re-mining areas into the new permit, addition of settleable solids and temperature limits for active mining discharges, temperature limits for post mining reclamation areas, requirement to complete a storm water pollution prevention plan (SWPPP) at time of application, and TMDL and anti-degradation conditions.
- Permits **expire every 5 years** and must be re-issued.

Significant Changes

- The definition for **active mining areas** has been updated to be consistent with the federal definition in 40 CFR 434.11.
- For active mining area discharges, limits for turbidity, total iron, total manganese and pH are continued from the previous permit and **other limits have been added or changed** as follows: total suspended solids (35 mg/l average, 70 mg/l maximum), settleable solids (0.5 Ml/l maximum), temperature (68°F for Use III and III-P waters,75°F for Use IV and IV-P waters, and 90° for Use I and I-P waters), and selenium (0.02 mg/l maximum).
- In addition, for active mining area discharges, **monitoring (without limits)** has been added as follows: specific conductance, chloride, sulfates, aluminum, antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, silver, thallium, zinc, mercury, bromide, and total dissolved solids.

Significant Changes (Cont…)

- The renewal permit requires that the NOI (application) includes **better descriptions** of the processes, sources of wastewater, and flows relevant to the permit conditions, and whether the receiving stream is high quality (Tier II) or impaired.
- It also requires the addition of a **site map** illustrating discharge locations. Discharges to high quality (Tier II) waters and impaired waters may not be eligible for coverage.
- Completed NOI, along with the applicable fee (*payable to Maryland Department of the Environment*), should be sent to the Department via the address provided on the application.

Who/ What Is Being Covered?

- This permit now also authorizes discharges from **remining activities** provided that the facility voluntarily submits an application for coverage under the terms and limits of this general permit instead of seeking the allowances for remining applicable under COMAR 26.08.03.08 through issuance of an individual permit.
- The Department has changed the requirements for **transfer of authorization** under this permit from ‘nontransferable to a person’ to ‘non-transferable to a changed location’. This ensures the Department is not authorizing a discharge at a new location without appropriate review through submission of a new application.
- The permit updates various standard **permit conditions**. The updated standard permit conditions include, but are not limited to: requirements to obtain coverage under an individual permit, as necessary; termination of coverage under a permit; continuation of an expired general permit; and notice of intent.

Operator Certification Required

- Within two months of obtaining coverage under this general permit, the discharge facility shall be operated by a Class 2 or above industrial wastewater operator duly certified by the Maryland Board of Waterworks and Waste Systems Operators. During the effective period of this permit, the treatment facility shall not be operated without a certified operator for more than 180 accumulative days. For any existing permittee covered under the 06CM permit, operator certification shall be valid at time of registration.

Ineligible Discharges

- Discharges of toxic substances at levels that exceed state water quality criteria for toxic substances;
- Discharges that elevate the temperature in Use I, III, or IV waters, as designated in COMAR 26.08.02.03-3;
- Untreated discharges of acid mine drainage from reclamation areas;
- Discharges from coal mines commingled with other sources of wastewater, particularly wastes from active underground mines;
- Discharges of process wastewater other than those from mining;
- Discharges from active underground coal mines.
- Discharge to high quality waters, Tier II waters, or to impaired streams unless the discharges meet the qualifying provisions under Part VII, Paragraphs I, J, and/or L.
- Construction activity that disturbs an acre or more.

Renewal of 06-CM Registrations

- By June 30th, 2014 any permittee currently registered under General Permit 06-CM shall submit to the Department a new NOI and fee in order to continue coverage under this permit.

Other Requirements

- The permittee is prohibited from using phosphorus or nitrogen compounds to treat wastewater without prior approval from the Department (Part IV–Section D)
- The permittee is prohibited from using chlorine or chlorine products for the treatment of wastewater that will be discharged from this site.

Must Have Current SWPPP…

- The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at the facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific best management practices (BMPs), maintenance plans, inspections, employee training, and reporting.
- The permittee shall keep the SWPPP current, and include the most recent date of the SWPPP on the front page of the plan.
- The permittee shall amend the plan whenever there is a significant modification to the facility and its potential for discharge of pollutants to the waters of the State.

Must Have Current SWPPP…

A typical SWPPP includes the following elements:

- Stormwater pollution prevention team
- Site description and updated map
- Summary of potential pollutant sources
- Description of control measures
- Schedules and procedures
- Documentation to support eligibility considerations under the federal law
- Certification of the SWPPP

Must Have Current SWPPP…

- For guidance on SWPPP, please refer to the ‘Industrial Stormwater Multi-Sector General Permit – Sector H: Coal Mines’, at EPA’s website: http://cfpub1.epa.gov/npdes/stormwater/swsectors.cfm
- Also, EPA guidance document titled ‘Developing Your Stormwater Pollution Prevention Plan – Guide For Industrial Operators’.
- We plan to have both documents on our MDE website.

Use of NetDMR Required

- NetDMR is a web-based tool that allows NPDES permittees to electronically sign and submit their Discharge Monitoring Reports to EPA. For more information and training, go to the EPA website at: www.epa.gov/netdmr
- By no later than December 31, 2014, permittees shall begin using the NetDMR system for the submission of monitoring data.
- In the interim, paper copies of DMRs may also be submitted quarterly (March, June, September and December) to the Department at the addresses: *Maryland Department of the Environment, WMA – Compliance, 1800 Washington Blvd, Ste 425, Baltimore, MD 21230, Attn: DMR*

Discharges to Impaired Waters with an EPA-Approved or Established TMDL

- For all discharges to impaired watersheds with an approved TMDL, the NOI will be reviewed at the time of submittal and, based on the permittee's description of the discharge and the TMDL's waste load allocation (WLA), the permittee may be subject to any combination of the following actions:
    - meeting more stringent effluent limits than identified in this permit; modifying the discharge;
    - obtaining coverage under an individual discharge permit as identified in PART I - Section F; and/or
    - eliminating the discharge;
    - denial of application for coverage under this permit.

Discharges to Impaired Waters with an EPA-Approved or Established TMDL (Cont..)

- Appendix A of form MDE-WMA-PER007 (NOI) lists applicable TMDLs associated with surface coal mining regions.
- Appendix "A" lists each watershed's aggregate WLA established for this permit within the respective TMDL relative to the authorized discharges.
- Any TMDL limits, anti-degradation restraints, or water quality-based limits assigned to a facility shall supersede any limits identified in this permit, see PART VII - Section I for details.

Discharges to Impaired Waters with an EPA-Approved or Established TMDL (Cont..)

APPENDIX A

Basin Name	DNR 8-digit Basin Number	Impairment	Status
Georges Creek	02141004	Low pH	Approved: April 17, 2008 Revised Final Approved: February 10, 2011
Georges Creek	02141004	Sediment	Approved: Dec. 27, 2006
Georges Creek	02141004	BOD	**Accepted as Information to delist**: Feb. 26, 2002
Savage River Reservoir	02141006	Mercury	Approved: Jan. 29, 2004
Savage River	02141006	Low pH	Approved: April 17, 2008 Revised Final Approved: February 10, 2011
Savage River	02141006	Nutrients (WQA)	Approved: April 16, 2001
Upper North Branch of the Potomac River	02141005	Iron and Aluminum	**Submitted**: Sept. 18, 2009
Upper North Branch Potomac River	02141005	Low pH	Approved: April 17, 2008
Upper North Branch Potomac River	02141005	Sediments	Approved: May 15, 2007
Upper North Branch Potomac River	02141005	Nutrients (WQA)	Approved: Aug. 10, 2006
Upper North Branch Potomac River	02141005	Metals (WQA)	Approved: Nov. 15, 2006
Wills Creek	02141003	Low pH	Approved: April 17, 2008
Wills Creek	02141003	Cyanide (WQA)	Approved: Aug. 16, 2006
Wills Creek	02141003	pH (WQA)	Approved: Dec. 16, 2005
Wills Creek	02141003	Non-tidal Bacteria	Approved: Nov. 6, 2007
Wills Creek	02141003	Nutrients (WQA)	Approved: March 15, 2010
Wills Creek	02141003	Non-tidal Sediments	Approved: Jan. 16, 2007

Discharges to Impaired Waters without an EPA-Approved or Established TMDL

- If a permittee discharges to an impaired water without an EPA-approved or established TMDL, the permittee is required to comply with the requirements in PART VII - Section I. Note, that this provision also applies to situations where the Department determines that discharges are not controlled as necessary to meet water quality standards in another water body, even if the permittees discharge is to a receiving water that is not specifically identified on a section 303(d) list of impaired waters.
- If a permittee discharges to an impaired water which does not have an approved or established TMDL, the permittee shall monitor once per year at each outfall discharging storm water to the impacted water segment, for the pollutant impairing the water segment (e.g., suspended solids).

Effluent Limitations & Monitoring Requirements (Active Mines)

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			UNITS	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MINIMUM	MONTHLY AVERAGE	DAILY MAXIMUM			
Flow	REPORT					GPD	2/Month	Estimated
Turbidity (a)				50	100	NTU	2/Month	Grab
Total Iron (a)				3.0	6.0	mg/L	2/Month	Grab
Total Manganese (a, c)				2.0	4.0	mg/L	2/Month	Grab
Total Suspended Solids (a, d)				35	70	mg/L	2/Month	Grab
pH (a, d)			6.0		9.0	s.u.	2/Month	Grab
Settleable Solids (a, d, e, f)					0.5	mL/L	1/quarter	grab (b)
Temperature(g)					(g)	°F	2/month	i-s
Temperature Difference(g)					0	°F	2/month	i-s
Specific Conductance					REPORT	mS/cm	(h)	Grab
Chloride					REPORT	mg/L	(h)	Grab
Sulfates					REPORT	mg/L	(h)	Grab
Metals (see i)					REPORT	mg/L	1/year	Grab
Total Selenium					20	ug/L	(j)	Grab (b)
Bromide					REPORT	mg/l	1/quarter	Grab
Total Dissolved Solids					REPORT	mg/l	1/year	Grab

Effluent Limitations & Monitoring Requirements (Active Mines Cont…)

a. Except during a precipitation event equal to or greater than 4.3 inches **of** precipitation in a 24-hour period in Garrett County or 4.5 inches in a 24-hour period in Allegany County or 4.8 inches in a 24-hour period in Washington County. The permittee shall indicate on the DMR if such a precipitation event occurred, and the magnitude of the event. During a storm of this magnitude, and for four hours thereafter, the permittee need only meet the above pH limitations. The permittee shall maintain a rain gauge on site and record the precipitation on the day of wet weather monitoring in a log that shall be made available for inspection by Department personnel, or shall indicate upon submission of the NOI the name and location of a weather station within ten miles of the facility from which s/he shall use the recorded rainfall in every instance.

b. Samples shall be collected when there is a discharge, if possible during or immediately after a storm event that causes a discharge or an increase in the discharge volume, and at least one week apart.

c. Monitoring and limitation of manganese is only required when wastewater is acid or ferruginous mine drainage. The permittee shall indicate on each monthly monitoring report if a neutralizing agent is being used to treat acid or ferruginous mine drainage. Unless the report specifically states that no such treatment has been used during that month, and that wastewater is not acid or ferruginous, monitoring for manganese will be required.

d. Any TMDL limits, anti-degradation restraints, or water quality-based limits assigned to a facility shall supersede any limits identified in this permit, see PART VII - Section I for details.

Effluent Limitations & Monitoring Requirements (Active Mines Cont…)

e. Applies to access roads, discharges from preparation plants, and active mining areas.

f. The limitation for Settleable Solids is an instantaneous maximum

g. - Temperature monitoring is required for all discharges from May 15 through September 30 only. Temperature limits do not apply to discharges to groundwater and/or discharges which do not have a direct flow path to a receiving stream. In these conditions the permittee shall report “<0” on the discharge monitoring report.

- For the purpose of temperature monitoring only, the outfall (point of discharge) to a stream is defined as the point that the effluent enters a stream that carries observable flow that is not solely attributable to the discharge.

- If the temperature of the effluent is equal to or less than the [Use] criteria, the only temperature measurement necessary to calculate the “temperature difference” shall be one measured at the point of discharge.

-Temperature Difference” is the calculated value, arrived at by subtracting ambient receiving water temperature or designated water criteria [Use I, I-P, II and II-P: 90°F; Use III and III-P: 68°F; Use IV and IV-P: 75°F], whichever is higher, from the effluent temperature or the temperature of the receiving stream at the edge of a mixing zone, whichever is lower.

-The allowable mixing zone for temperature in still water is 50 feet radially from the outfall and in flowing water, 50 feet from the discharge point (outfall) in the direction of flow at the time of measurement.

Effluent Limitations & Monitoring Requirements (Active Mines Cont…)

h. Sample shall be taken once per quarter during each calendar quarter of the year with a measurable discharge (not just those during a major precipitation event).

i. The Department requires a suite of metals to be taken consisting of the following metals using Method ICP/MS for aluminum, antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, silver, thallium, and zinc, and Method 1631 for mercury. Metals shall be analyzed and reported as both total and dissolved. Based on the results of these analyses, additional monitoring may be required or an individual State/NPDES discharge permit with metal limitations may be required. Upon notification by the Department only, the permittee may be required to provide, corresponding to parameters listed in the permit, two sets of in-stream sampling results upstream and downstream of the facility, one set representative of seasonal flows in warm weather season and the other set representative of cold weather season.

j. Once per discharge. After the first four samples are taken and analyzed, frequency is reduced to once per year.

Effluent Limitations & Monitoring Requirements (Reclaimed Areas)

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION		UNITS	FREQUENCY of ANALYSIS	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MINIMUM	DAILY MAXIMUM			
Flow	REPORT	REPORT			gpd	1/quarter	Estimated
Settleable Solids (a, c)				0.5	mL/L	1/quarter	grab (b)
pH (c)			6.0	9.0	s.u.	1/quarter	grab (b)
Temperature (d)				(d)	°F	1/month	i-s
Temperature Difference (d)			0		°F	1/month	i-s

Contact Information & Resources

The copy of the permit is available on MDE's website (www.mde.state.md.us) and can be found by going to the link at **http://www.mde.state.md.us/waterpermits under "Water Applications and Other Forms" then "Surface Coal Mines**…", or by searching "coalmines.aspx" in the right hand corner search engine.

Any questions regarding the them general mining permit should be directed to Robert Pudmericky at the Maryland Department of the Environment, Water Management Administration, at rob.pudmericky@government.gov, or by telephone at 410-537-3721 between the hours from 8:00 a.m. to 5:00 p.m., Monday through Friday.

1800 Washington Boulevard | Baltimore, MD 21230-1718
410-537-3000 | TTY Users: 1-800-735-2258
www.mde.state.md.us