

PERMIT FACT SHEET

General Permit for Discharges from Surface Coal Mines and Related Facilities

General Discharge Permit Number: 19-CM0000

NPDES Permit Number: MDG850000

Maryland regulations (COMAR 26.08.04.08) specify the process required for issuing General Permits and their renewals. The renewal process includes publication of a notice that the Department has drafted a Tentative Determination and Fact Sheet, and allows the public 30 days to comment before issuance of the Final Determination. Maryland Code, Environment § 1-606 requires the Department to extend the public comment period to a total of 90 days on request by a person. The Department assumes for a permit like this, a request would be made, therefore the comment period allowed is 90 days. The regulations also allow for a public hearing when a written request has been made. It is the Department's intent to provide and schedule online meetings for the exchange of information in hopes of achieving an equivalent outcome to the process that would occur through an in-person meeting or hearing. Nevertheless current rules provide the opportunity for traditional meeting and or hearing unless waived by a requesting party or where interim rules are declared applicable during the COVID-19 emergency declaration for Maryland. The public notice is published in the Maryland Register and in newspapers around the State. The Department must review and respond to comments on the Tentative Determination. With this background, once the Department has created a Tentative Determination, public participation rules require publishing in the Maryland Register and newspapers. The Department also sends a copy of the notice to the permittees and interested parties and will be posted to our website <https://mdewwp.page.link/CMGP>. The dates of any scheduled public hearing and the specific end date of the comment period are included in the notice. An interest list will also be established for those interested in online opportunities for meetings and for online opportunities to present comments for the record. Comments can also be mailed in written form or emailed to the Department to Robert Pudmericky's attention.

**Prepared by Robert Pudmericky
Maryland Department of the Environment
Water and Science Administration,
Industrial Stormwater Permits Division
1800 Washington Boulevard, Suite 455
Baltimore, MD 21230-1708**

rob.pudmericky@maryland.gov, 410-537-3323

FINAL 10/19/2022

Table of Contents

Summary of Significant Changes from the 11-CM	3
Background	3
Maryland Coal Mine Enforcement of Clean Water Act Requirements	5
Climate Adaptation	6
Part I: Permit Applicability	7
Part II: Authorization Under this Permit	10
PART III: Effluent Limitations and Other Control Measure Requirements	10
Part IV. Corrective Actions	18
<i>AIM Level 1 (Year 1)</i>	19
<i>AIM Level 2 (Year 2)</i>	20
<i>AIM Level 3 (Year 3)</i>	21
PART V: Inspections, Monitoring and Reporting	23
Part VI: Earth-Disturbing Activities Conducted Prior to Active Mining	26
Part VII: Standard Permit Conditions	27
Part VIII: Authority to Issued General Permits	27
Appendices:	27

Summary of Significant Changes from the 11-CM

1. The structure of the permit has been reformatted to be consistent with MDE's stormwater permits.
2. Clarification of facilities covered using the Standard Industrial Classification (SIC) system (see Part I.B below).
3. Clarification of the types of eligible stormwater and non-stormwater discharges (see Part I.C below).
4. Clarification of activities or discharges not eligible for coverage (see Part I.D below).
5. New prohibitions for new dischargers to impaired or high-quality waters (see Part I.E below).
6. Clarification of requirements for alternative permit coverage (see Part I.G below).
7. New requirements for planned changes and termination of stormwater coverage (see Part II.F below).
8. New methodology to calculate temperature difference (see Parts III.A.1 & III.A.2 below).
9. Introduction of new narrative control measures and alternate effluent limits to address climate adaptation measures (see Part III.D below).
10. New conditions for use of chemical additives in sediment control (see Part III.D below).
11. Expansion of the Stormwater Pollution Prevention Plan (SWPPP) requirement to include all types of discharge regulated by this permit (see Part III.E below).
12. New corrective action requirements for meeting narrative limits and benchmarks (see Part IV below).
13. Expansion of inspection, monitoring, and reporting requirements to include provisions related to active mining areas (see Part V below).
14. New requirements for earth-disturbing activities conducted prior to active mining (see Part VI below).
15. Expansion of standard permit conditions (see Part VII below).

Background

The Clean Water Act or CWA (33 U.S.C. §1251 et seq., 1972), establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards for industry.

The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

The Water Quality Act of 1987, enacted April 2, 1987 (P.L. 1004) further amended § 402 of the CWA directing EPA to develop a phased approach for regulation of stormwater discharges under the NPDES program. EPA published its final regulation on the first phase of the program on November 16, 1990, establishing permit application requirements for “stormwater discharges associated with industrial activity” (55 Fed. Reg. 47990), broadly defining the term to cover a wide variety of facilities (See 40 CFR 122.26(b)(14)).

Under § 402(b) of the CWA; 40 CFR Part 123, EPA may grant authority (in whole or in part) to individual states to administer the federal NPDES program in that state. The State of Maryland is so authorized, and the Code of Maryland Regulations (COMAR) Title 26, Subtitle 08, Chapter 04 requires all discharges of waste or wastewater to surface waters to be authorized under a State discharge permit or NPDES permit. Authorized states are prohibited from adopting standards that are less stringent than those established under the Federal NPDES permit program, but may adopt standards that are more stringent if allowed under state law. The Federal NPDES program under the CWA does not apply to groundwater discharges, therefore discharges to groundwater are regulated under the State discharge permit pursuant to COMAR 26.08.04.01.B.(1).

Operations covered by this permit are primarily addressed in two sections of the federal regulations, at 40 CFR Part 434 which establishes effluent limitation requirements for discharges from coal mines and stormwater associated with coal mining, and at 40 CFR §122.26, which identifies stormwater discharges associated with industrial activity (other than stormwater regulated in 40 CFR §434) as subject to state NPDES permitting requirements. Maryland regulations (COMAR 26.08.03) prohibit the discharge of any wastes or wastewaters, regardless of volume, unless authorized by a discharge permit.

In addition to NPDES regulations, surface mines are subject to COMAR 26.21.01, in accordance with which an operator must obtain a permit from the Maryland Department of the Environment (MDE or Department) Bureau of Mines to conduct surface mining for coal. Additionally, the surface mine operator must reclaim and restore the mined land. Specifically relevant to this permit, requirements for grading and sediment control are outlined by COMAR 26.21.01.10.

This permit replaces General Permit Number 11-CM that became effective for a five-year term on May 1, 2014 and expired April 30, 2019; however, the 11-CM general permit is administratively continued for facilities covered under that permit at the time it expired. As of 2021 over 38 Maryland facilities are registered under the 11-CM permit. These facilities have been identified by the Department as appropriate for coverage under eligible industrial sectors. The sector descriptions are based on Standard Industrial Classification (SIC) Codes and industrial activity at 40 CFR 122.26(b)(14)(iii). Two of the Maryland’s active surface mines covered by general permit are also permitted under an individual NPDES permit. These facilities are ARJ Construction Company-Taylor Mine #1 (15DP3363), and Mettiki Coal, LLC (15DP1422).

Discharges from construction of staging areas and access roads are regulated by this permit pursuant to 40CFR 122.26(b)(14)(x) and (b)(15)(i).

The most significant change for the 19-CM permit is the format modification to resemble EPA's MSGP. Formatting the 19-CM permit on the MSGP allows the Department to reference and utilize much of EPA's published guidance. Common requirements for coverage under the Coal Mine permit include development of a written stormwater pollution prevention plan (SWPPP), implementation of control measures, corrective actions, and submission of a request for permit coverage, usually referred to as the Notice of Intent or NOI. The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at your 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 procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site. The industrial stormwater permit also requires collection of analytical, and/or compliance monitoring data to determine the effectiveness of implemented BMPs. For more information on this permit go to MDE's Industrial Permits website and click on General Permit for Discharges from Surface Coal Mines and Related Facilities (19-CM).

Maryland Coal Mine Enforcement of Clean Water Act Requirements

The federal Surface Mining Control and Reclamation Act of 1977 (SMCRA) requires that programs be developed and implemented to regulate surface coal mining and reclamation operations. Section 201 of SMCRA established the Office of Surface Mining Reclamation and Enforcement (OSMRE) within the US Department of the Interior to administer and implement SMCRA. Among its responsibilities, OSMRE is charged with reviewing and approving state programs for regulating surface coal mining and reclamation operations and making those investigations and inspections that are necessary to ensure compliance with SMCRA, as well as ensuring adherence to Federal and state statutory and regulatory requirements and maintaining minimum nationwide mining and reclamation standards.

SMCRA encourages states to assume the primary responsibility for regulating coal mining and reclamation activities (primacy). Once states are granted primacy, the role of achieving many of the purposes of SMCRA lies primarily with them. State primacy provides individual states the opportunity to address local conditions and interests in developing individual programs. Evaluation of program effectiveness provides OSMRE the means to assure the individual state programs are appropriately addressing SMCRA requirements as they develop and administer their laws, regulations and policies. The ongoing oversight/evaluation process provides for timely identification and resolution of issues and helps keep state programs consistent with SMCRA.

OSMRE initially approved Maryland's mining regulatory program on February 18, 1982, thereby granting primacy for the implementation of SMCRA to the State. Information about the history of approvals and amendments to Maryland's SMCRA Mining Program, since the initial approval, can be found at Part 920 of Title 30 of the Code of Federal Regulations (30 CFR §920.1). The Code of Maryland Regulations (COMAR) 26.20.21.02 requires that discharges of water from areas disturbed by surface mining shall be made in compliance with applicable State laws and

regulations, the federal Clean Water Act, and with effluent limitations for coal mining promulgated by the U.S. Environmental Protection Agency set forth in 40 CFR §434.

Currently, there are 38 active surface coal mining operations permitted within the State. The mission of the Bureau of Mines is to protect the public and the environment from the potential impacts of active coal mining, and to promote the restoration and enhancement of active and pre-law abandoned coal mined lands through current mining activities, and the mitigation or improvement of pre-SMCRA coal mining impacted water resources. The Bureau of Mines is located in the Frostburg, Maryland field office of the Maryland Department of the Environment. There are two sections within the Maryland Bureau of Mines: Permitting Section and Inspection & Enforcement Section. Each section is responsible for differing aspects of Maryland's coal mining regulatory program. The Coal Permitting Section of the Bureau of Mines is responsible for technical review, modification, approval, and issuance or denial of coal mining permit applications for surface and deep mine mining operations and coal loading and processing facilities. The section also maintains records on all mining companies which are required to obtain a Maryland Mining License, active coal mining permits, permit acreage information, coal production, and the reclamation process. Information on the application process and forms for the various permits are available from this section. The Inspection and Enforcement Section is responsible for monthly inspections of each permitted mining operation or facility to assure the protection of the public and the environment from the potential impacts of mining activity. The mine inspectors perform on-site inspections to ensure compliance with the regulatory program and any special conditions imposed on the mining permit; field test water quality analysis, and follow-up on any citizen complaints.

Climate Adaptation

EPA proposed requirements in the 2020 MSGP for implementing structural improvements, enhanced pollution prevention measures, and other mitigation measures, to minimize impacts from stormwater discharges from major storm events that cause extreme flooding conditions.

The increase of major storm events due to climate change is a concern to the Department. The 2020 MSGP requirement to consider these impacts is a reasonable way to ensure receiving waters are protected. The 19-CM permit contains new language in multiple sections which are intended to address climate change impacts. The most significant update can be found in the 19-CM at Part III.D.1.a.viii, which identifies a series of specific factors related to climate change which must be considered when designing and implementing control measures. There are additional requirements in two other permit sections: one regarding considerations for planned changes at the operation (19-CM at Part II.F.1) and the other regarding work done within a floodplain (19-CM at Part VII.C). Part II.F.1 reduces the likelihood of flooding in new structures placed on site and Part VII.C notifies the permittee that operations within a floodplain may incur additional requirements because the flooding of such operations represents increased risk of pollution to Waters of the State. One such requirement may be the need to obtain coverage under a Wetlands General Permit to address any storage of materials within areas which come flooded.

Part I: Permit Applicability

Facilities Covered (Part I.B of the permit) - This section of the permit provides a detailed description of facilities covered under this permit. This permit is different from the 11-CM permit in that the permit now describes the categories of facilities covered by using the SIC coding system. It specifically discusses that covered discharges include stormwater discharges from coal mines and coal mine related facilities as defined by being in SIC Major Group 12. The eligible facilities include surface coal mines that discharge industrial stormwater that has come into contact with any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations and identified by the following SIC codes:

- Bituminous coal and lignite surface mining (SIC 1221)
- Anthracite mining (SIC 1231)
- Coal mining services (SIC 1241)

As with the 11-CM, this permit also authorizes:

- discharges from all new and existing discharges of stormwater runoff and groundwater infiltration to surface waters from surface coal mines, including active mining areas, access roads, coal mine reclamation areas, and associated coal storage and loading areas .
- stormwater from independent tipples and associated coal preparation areas.
- discharges from coal re-mining facilities and inactive coal mines and related areas.

Eligible Discharges (Part I.C of the permit) This section specifies in detail the type of eligible stormwater and non-stormwater discharges. Not all stormwater discharges associated with industrial activity are eligible for coverage under this permit (e.g. stormwater dischargers regulated by coal mine effluent limitation guidelines). Dischargers should use this section to determine which stormwater discharges from their site can be covered under the 19-CM. This provision also specifies which non-stormwater discharges are covered under the permit as exceptions to the general exclusion of non-stormwater discharge from eligibility. To be authorized under this permit, any sources of non-stormwater (except flows from firefighting activities) must be identified in the SWPPP.

New and of note is that the section now details the conditions under which chemical additives are able to be used for sediment control. All those seeking to use additives must follow the guidelines outlined in the permit language as well as the Standards for Use of Chemical Additives for Sediment Control document (<https://mdewwp.page.link/ChemAddStandards>) to gain approval for use of additives as part of the permit registration process. These standards were initiated by the Department in 2020 to establish consistent requirements for all entities who need to use additives for sediment control.

Limitations on Coverage (Part I.D of the permit) This section includes the requirements applicable to discharge to impaired waters. Facilities will be considered to discharge to an impaired water if the first Waters of This State discharged to is:

- Identified by the Department, pursuant to Section 303(d) of the CWA, as not meeting an applicable water quality standard; or
- Addressed by an EPA-approved or established TMDL; or
- Not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1).

Existing Discharges to an Impaired Water with an EPA-Approved or Established TMDL.

This Part specifies the Department may inform operators that additional requirements are necessary for the discharge to be consistent with the assumptions and requirements of an applicable TMDL and its wasteload allocation (WLA). Water quality-based effluent limits must be “consistent with the assumptions and requirements of any available wasteload allocation for the discharge,” pursuant to 40 CFR 122.44(d)(1)(vii)(B). Where an operator indicates on its NOI that a discharge is to one of the types of waters this Part covers, the Department will review the applicable TMDL to determine whether it includes provisions that apply to the individual discharger. If so, the Department will determine whether compliance with the existing permit limits is sufficient or what additional measures are necessary for the discharge to be consistent with the WLA. Alternatively, the Department may decide an individual permit application is necessary. Because WLAs for stormwater discharges may be specified in many different formats, it has not always been clear to operators what they need to do to ensure that their discharge is consistent with available WLAs. The Department has thus established a set of controls in the Design Manual for nutrient and sediment, which may be required to ensure that these requirements are properly interpreted and communicated to the facility in a way that is implementable. If other pollutants are identified, the Department would work with the facility to develop appropriate controls in light of the best information available.

Existing Discharges to an Impaired Water Without an EPA-Approved or Established TMDL

This Part reiterates that facilities discharging to impaired waters without an EPA-approved or established TMDL must still control their discharges as necessary to meet water quality standards. The Department expects an operator will achieve this if it complies with the other requirements in the permit, including monitoring requirements applicable to impaired waters discharges in Part V.A.5. However, if information in the NOI, required reports, or from other sources indicates that discharges are not controlled as necessary to meet applicable water quality standards, the Department may inform an operator that it needs to implement additional measures on a site-specific basis to ensure the WQBEL is met, or, alternatively, of the need to apply for an individual permit.

New Discharges or New Source to an Impaired Water

This Part requires an operator that is a “new source” or meet the definition of a “new discharger” (see Appendix A) that discharge to impaired waters to maintain for the permit term any control

measures in good working order that it has implemented to meet the eligibility requirements of Part I.D.10.

Antidegradation Requirements for New Dischargers or Increased Dischargers

This provision applies to new dischargers, new sources, and existing dischargers whose discharges that flow directly to waters designated by a state or tribe as Tier II (defined in Appendix A) have increased. (In general, any existing discharger required to notify the Department of an increased discharge consistent with Part II.F. Such dischargers must, for antidegradation purposes, implement any additional measures that the Department determines are necessary to comply with the permit's WQBEL, including the applicable antidegradation requirements (COMAR 26.08.02.04-1 antidegradation policy pursuant to 40 CFR 131.12). The Department may also, per the applicable antidegradation policy, notify operators that they cannot be covered under the 19-CM due to the unique characteristics of the discharge or the receiving waters, and that they must apply for an individual permit. Conversely, if the Department does not notify an operator that additional measures are needed to ensure compliance with antidegradation requirements, the operator is authorized to discharge under this general permit.

Per Part IE.2, waters designated as "Tier II" by Maryland can generally be described as follows: Tier II protects "high quality" waters -- waterbodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. Use the interactive Tier II webmap located at: <https://mde.maryland.gov/programs/Water/TMDL/WaterQualityStandards/Pages/HighQualityWatersMap.aspx> to assist you. On the map, Tier II watersheds colored orange have NO assimilative capacity.

Water quality may be lowered in Tier II waters where "allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." 40 CFR 131.12(a)(2). The process for making this determination is what is commonly known as "Tier II review." The essence of a Tier II review is an analysis of alternatives to the proposed new or increased discharge. 63 Fed. Reg. 36,742, 36,784 (col. 1)(July 8, 1998). In no case may water quality be lowered to a level that would interfere with existing or designated uses. 40 CFR 131.12(a)(1), 122.44(d). Maryland has broad discretion in identifying Tier II waters. 63 Fed. Reg. at 36,782-83. In addition, states and tribes may adopt what is known as a "significance threshold." A "significance threshold" is a de minimis level of lowering of water quality below which the effects on water quality do not require Tier II review. Id. at 36,783.

Alternative Permit Coverage (Part I.G of the permit) This section implies that the applicant is responsible for finding all proper permit coverage, and that coverage under the 19-CM permit does not preclude the possibility that other permits may be needed. The Department may require an operator to obtain an individual permit or terminate the permit if certain permit conditions are violated.

Continuation of an Expired General Permit (Part I.H of the permit) - If the permit is not reissued or replaced (or revoked or terminated) prior to its expiration date, discharges are covered under an administrative continuance, in accordance with 40 CFR § 122.6.

Part II: Authorization Under this Permit

Part II.A instructs operators choosing coverage under the 19-CM General Permit to submit a complete and accurate Notice of Intent (NOI). Through the NOI the applicant will certify that they meet the requisite eligibility requirements, including the requirements to select, design, and install control measures to comply with technology and water quality-based effluent limits and to develop a Stormwater Pollution Prevention Plan (SWPPP). The terms of this part remain largely unchanged from the information that was required to apply for the 11-CM. Any alterations should be considered minor and are addressed in the updated instructions for new NOI.

The 11-CM included “Definitions” under this Part. The definitions have been moved to Appendix A.

PART III: Effluent Limitations and Other Control Measure Requirements

The previous permit included “Notice of Intent Requirements” under this Part. These requirements are now in Part II.

Numeric and Other Limitations (Part III.A of the permit). This section specifies water quality standards and technology limits (including Effluent Limitation Guideline or ELGs) that continue from the previous permit. ELGs for coal mining industry are specified in 40 CFR Part 434.

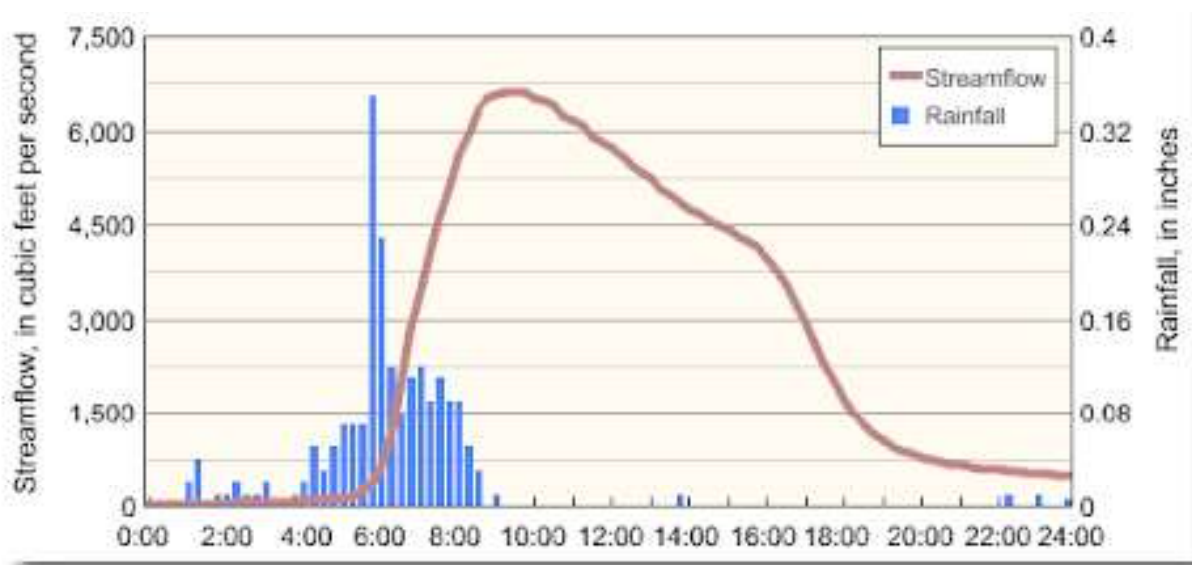
This permit contains effluent limits that correspond to required levels of technology-based control for various discharges under the CWA. The concentrations of conventional and nonconventional pollutants present in Maryland’s mining industry discharges were examined for the establishment of effluent limitations based on the application of the best conventional technology (BCT) and the best available technology economically achievable (BAT), respectively. Necessary modifications to the current permit based on best practicable control technology currently available (BPT) were also identified. Treatment options were also assessed upon which new source performance standards (NSPS) are based. Various technology options were considered and the rationale for selecting each technology level were basis for establishing limitations and controls for the 19-CM permit.

The major sources of wastewater in the coal mining category include precipitation, surface runoff, ground water infiltration and effluents from coal preparation plants. No process water is used in the mining phase, except for minor consumption in dust suppression, pump coolants, and firefighting needs. Therefore, pollution abatement in this industry must be approached differently than other industries, with reliance on operating and management practices for wastewater source control as well as end-of-pipe treatment technologies. Because of the nature

of stormwater discharges, it is often infeasible to use numeric effluent limits to demonstrate the appropriate levels of control. In such situations, the CWA authorizes EPA, and in turn the Department, to include non-numeric effluent limits in NPDES permits. The 19-CM includes a number of such non-numeric effluent limits. Several of these non-numeric limits require facilities to “minimize” various types of pollutant discharges.

The 11-CM required once a year monitoring for a suite of metals including arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc with no limits. Selenium was limited by the permit to a water quality standard of 20 µg/L. An analysis was conducted across the industry for all these metals using DMR data from January 2015 through March 2021. The analysis showed that the selenium limit was exceeded only one time by one permittee during the permit term, in the 3rd quarter of 2018. For metals parameters other than selenium, about 20% of sample results exceeded the respective water quality standards, but not uniformly with respect to any one parameter throughout the 11-CM permit universe. Some of the data points reported on DMRs differs significantly from the majority of observations. These outliers are believed to be present due to sampling, preservation, or analytical contamination.

The effect of runoff on streams buffering capacity was also considered. Generally, when stream flow increases due to rainstorm runoff, the in-stream metal concentrations immediately decrease due to dilution. Figure 1, below, is a good example to describe streamflow characteristics of small streams where runoff enters the river very quickly, and the stream that was at base flow conditions before the rain started. It shows rainfall, in inches, during each 15-minute increment and the continuous measure of streamflow, in cubic feet per second (ft³/s). The brown in the chart shows that the streamflow is much higher during the storm period than just before it. The line shows that the baseflow was about 50 ft³/s before the river started to rise, but that just a few hours later, at 9:00 AM streamflow was over 6.000 ft³/s – that is about 150 times the amount of water flowing by as during baseflow conditions.

Figure 1. Rainfall and Stream flow Characteristics for a Typical Small Stream (USGS)¹.

Rationales for the specific limits assigned for parameters of concern are identified below:

Temperature & Temperature Difference: The majority of the coal surface mining discharges, even if they represent a dominant flow, are not going to cause water quality standards to be violated for Use I and II waters. Solar heating of settling ponds can cause the temperature of the discharge to be elevated, which could affect Use III and IV waters. In the permit, temperature is treated as any other parameter of concern, by setting a numerical limit. The limits are the receiving water quality criteria for use III and IV waters from COMAR 26.08.02.03-3. As allowed by COMAR 26.08.03.03, the limits ultimately apply to the edge of a 50-foot mixing zone, if that zone is necessary. So depending on the temperature of the effluent, compliance may be monitored at the edge of the zone, at the end of the pipe, internally, or, if the stream exceeds its own criteria, then that must be measured too. To make all these caveats workable for the data storage system (ICIS), we have devised a simple methodology to boil down multiple monitoring results into one number. We named this “temperature difference.” Rather than limit the discharge to the WQS, the registrant subtracts the temperature of the discharge (either end of pipe or at the edge of a 50-foot mixing zone, if needed) from the higher of the ambient temperature or the WQS. The limitation is zero, as anything above zero would mean the discharge temperature is too high. While this methodology is a change in how the temperature limits are implemented, the numerical values of the temperature limits are effectively unchanged from the previous permit.

¹ From 2002 USGS report on Streamflow and Water Cycle.

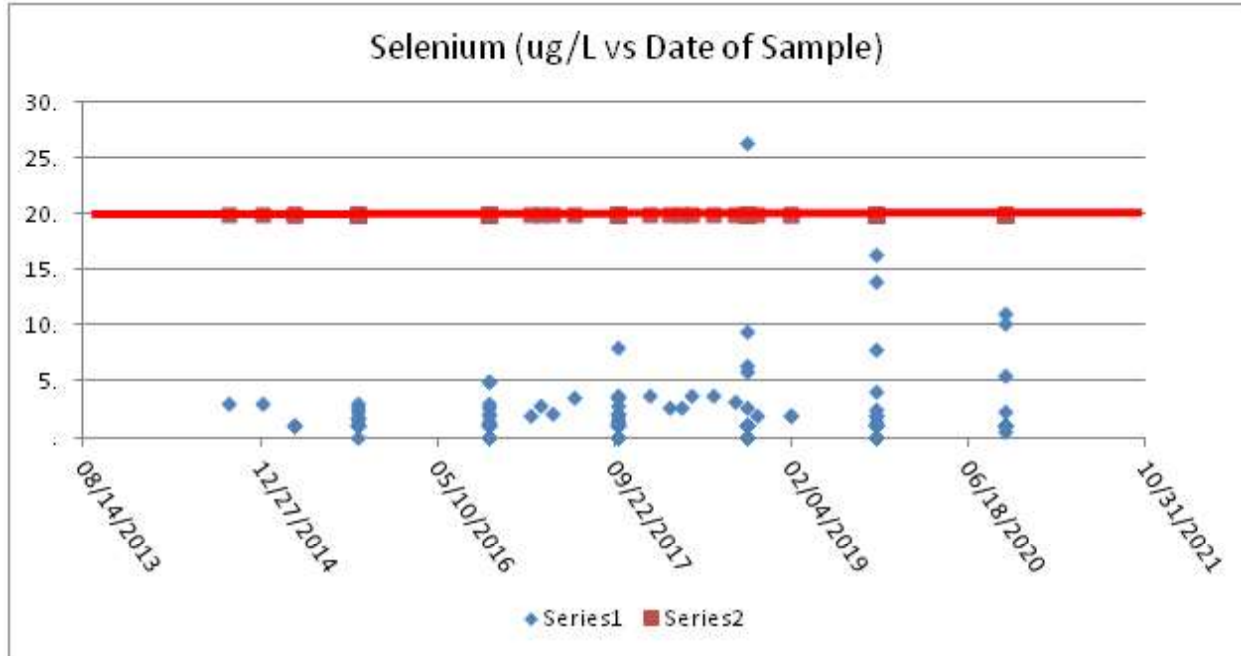
Turbidity: There is no technology-based limitation for turbidity in the ELGs for coal mining. COMAR 26.08.02.03-3 specifies in-stream water quality standards for turbidity, applicable to all designated uses, which states that turbidity in the surface water resulting from any discharge may not exceed 150 units at any time or 50 units as a monthly average. The previous iterations of this general permit implemented a daily maximum limit of 100 NTU and a monthly average limit of 50 NTU. After reviewing permit history, the exact source of the 100 NTU limitation was not found, but it appears to have been chosen to enforce a stricter standard for this type of facility. Based on a review of effluent data, it has not posed a problem. Maintaining the same limitation also avoids any concern regarding anti-backsliding. Therefore, based on best professional judgment, we will maintain the same limitation for this renewal.

Flow: There are no numerical limitations for flow in this permit, but actual flow shall be used to determine annual permit fees if applicable. In lieu of measured flow, the registrant may also provide monitoring via flow estimation, pursuant to the terms of Part V.B.4 of the permit.

Total Suspended Solids: The limits for active mining area discharges of 70 mg/L as a daily maximum and 35 mg/L as a monthly average have been continued from the previous permit. The numeric limits are representative of the “Best Practicable Control Technology Available” (BPT) and “Best Available Technology Economically Achievable” (BAT) requirements for these types of discharges pursuant to 40 CFR Part 434. Suspended solids result from erosion of scarified areas, where vegetation has been removed. The level of sediment concentration in runoff is a function of: slope of the area, residual vegetation, soil type, surface texture, drainage area, precipitation intensity and duration, existing soil moisture, and particle or aggregate size. While sediments could also be a concern for earth-disturbing activities, they are regulated by narrative erosion and sediment control requirements.

Selenium: Selenium is known to be associated with Appalachian coal mining. As a result, the Department limited selenium in the 11-CM permit using the freshwater acute water quality standard of 20 µg/L. Data from 38 facilities over the term of the 11-CM permit showed one sample exceeded the standard with maximum value of 26.4 µg/L, occurring in September 2018. This indicates that either selenium is not prevalent in coal deposits in Maryland or that common treatment practices are sufficiently removing selenium². The freshwater acute standard is protective of aquatic life, therefore it will continue in the renewal permit. Acute is used because of the intermittent nature and short duration of most of these discharges.

² Selenium in its natural state may be easier precipitate than selenium ions present in combusted coal.



Iron & Manganese: The limits continue from the previous permit. The Department uses the ELG BAT limits for iron and manganese (which are also equivalent to the BPT levels). The permit limits active mining area discharges for total iron to 6.0 mg/L as a daily maximum and 3.0 mg/L as a monthly average. The permit limits active mining area discharges for total manganese to 4.0 mg/L as a daily maximum and 2.0 mg/L as a monthly average. Monitoring of manganese is only required when wastewater contains acid or ferruginous mine drainage. The registrant shall indicate on each monthly monitoring report if a neutralizing agent is being used to treat acid or ferruginous mine drainage.

Polycyclic Aromatic Hydrocarbons (PAHs). The 2021 MSGP includes a new provision that requires certain operators to conduct “report-only” indicator analytical monitoring for PAHs bi-annually (twice per year) during their first and fourth years of permit coverage. PAHs are a group of chemicals that are persistent in the environment. PAHs have both natural and man-made sources. Natural sources include wildfires, volcanic eruptions, and degradation of materials within sediments and fossil fuels. Man-made sources include the incomplete burning of organic materials like coal, oil, gas, wood, and garbage, vehicle exhaust, asphalt, coal-tar sealcoat, and creosote (ATSDR, 2011; EPA, 2009; CDC, 2009). According to the U.S. Department of Health and Human Services, coal tars and coal-tar pitches are known to be human carcinogens based on studies in humans and 15 PAHs are listed as “reasonably anticipated to be human carcinogens” (2014). 2021 MSGP Fact Sheet (as modified) Page 62 of 139 PAHs are listed on EPA’s Toxic Pollutants list at 40 CFR 401.15. The Toxic Pollutant List was developed in 1976 and subsequently added to the CWA by Congress in 1977. The list was intended to be used by EPA and states as a starting point to ensure that Effluent Guidelines regulations, water quality criteria and standards, and NPDES permit requirements addressed

the problems of toxics in waterways (EPA, 2020). The Toxic Pollutants list consisted of broad categories of pollutants rather than specific, individual pollutants. Therefore, EPA developed the Priority Pollutant List in 1977 to make implementation of the Toxic Pollutant List more practical for water testing and regulatory purposes. The list of 126 Priority Pollutants can be found in 40 CFR Part 423 (Appendix A). Of the hundreds of known PAHs, EPA has designated 16 as Priority Pollutants: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenzo[ash]anthracene. Many PAHs can have impacts on human health and the environment. Several PAHs have been shown to be extremely toxic to and bioaccumulate in fish and aquatic invertebrates, and are known or probable human carcinogens (EPA Integrated Risk Information System (IRIS) 2014; NRC, 2019; Scoggins, 2007; U.S. Department of Health and Human Services, 2014).

Water Quality Benchmarks – The previous permit required monitoring once annually of a suite of potentially toxic substances that included: aluminum, antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, silver, thallium, zinc, and mercury. There were no limits in the previous permit for these metals, only monitoring to collect data for analysis. A review of these DMR results over the term of the last permit indicated that the majority of the sampling results reported were below acute Maryland water quality standards. The analysis consider only the acute standards due to the intermittent nature of discharges from facilities under this permit.

There were 38 facilities altogether that analyzed the suite of metals. The following is a summary of performance data reported on DMRs between years 2015-2021:

1. **Arsenic** – The freshwater acute water quality standard for 0.34 mg/L. Out of all samples taken, 18% exceeded the WQ standard. Only four active mines out of 38 permitted facilities (about 10%) reported exceedances for arsenic. The average arsenic concentration was 0.24 mg/L.
2. **Cadmium** - The freshwater acute criteria value for cadmium is 0.002 mg/L. Again, out of total amount all reported values, only about 18% of samples were over the water quality standard. As per above, these exceedances were recorded at four active mines out of 38 permitted facilities.
3. **Chromium** - The freshwater acute standard is 0.57 mg/L (Chromium III) or 0.016 mg/L (Chromium VI). Chromium III is a natural element found in nature in rocks, animals, plants, soil, volcanic dust and gases. The Chromium VI is manmade. We have designated Chromium III the pollutant of concern because there is no known source of Chromium VI from the activity of surface coal mining. Out of all samples taken, 15% of samples exceeded the Chromium III acute criteria. All of the exceeding samples came from six facilities and the average concentration of all samples was 0.48 mg/l.
4. **Copper** - The freshwater acute water quality standard is 0.013 mg/L. There were six facilities that exceeded the acute standard. About 21% of total records analyzed were over the water quality threshold.

5. Lead - The freshwater acute water quality standard is 0.065 mg/L. There were 112 records reported on DMRs for lead. About 18.7% of total records analyzed exceeded the standards. These exceedances were reported at 4 active mines out of 38 permitted facilities.
6. Nickel - The freshwater acute water quality standard is 0.47 mg/L. Three mines exceeded the acute standard, representing about 16% of all records analyzed.
7. Silver - The freshwater acute water quality standard is 0.0032 mg/L. Five facilities reported exceedances. The number of exceedances represented 23% of all samples analyzed. The average silver value was 0.036 mg/L.
8. Zinc - The freshwater acute water quality standard is 0.12 mg/L. Three facilities reported exceedances. Total number of exceedances from these facilities amounted to 14% of all records reported.
9. Mercury - The freshwater acute water quality standard is 0.0014 mg/L. Four facilities reported exceedances. About 22% of all records analyzed were over the acute standard.
10. Total Recoverable Aluminum – Aluminum was not limited nor monitored by 11-CM. The benchmark monitoring for Aluminum is being introduced in 19-CM as a new requirement recommended by EPA. The mining sector specific benchmark for Aluminum is 1.10 mg/L as per Table 8.H.2 of the EPA's Multisector General Permit Part 8. Aluminum considered to be toxic because it can inhibit a freshwater aquatic organism's ability to regulate salt concentration and clog fish gills, potentially resulting in death or affecting growth and reproduction.

40 CFR 122.4(d)(1)(i) requires limitations of toxic pollutant parameters at a level which will cause, or have the reasonable potential to cause, or contribute to an excursion of the State water quality standards. The most up to EPA recommended National Recommended Water Quality Criteria table for Aquatic Life can be access at this website:

<https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table>

Aquatic life criteria for toxic chemicals are the highest concentration of specific pollutants or parameters in water that are not expected to pose a significant risk to the majority of species in a given environment or a narrative description of the desired conditions of a water body being "free from" certain negative conditions. Therefore, In lieu of only once a year sampling, the 19-CM will require quarterly monitoring for toxics benchmarks listed in Table 1 below.

If the annual average of quarterly samples for any toxic parameter listed in Table 1 is over the applicable benchmark threshold (daily maximum), or one single quarterly sampling event is over 4 times the applicable benchmark threshold, your facility will be subject to Additional Implementation Measures (AIM) as specified in Part IV.B of the Permit.

If any toxic parameter listed in Table 1 does not exceed the benchmark threshold (as per above), the operator has fulfilled the sector-specific benchmark monitoring requirements for that parameter for the permit term and can apply for discontinuation of benchmark monitoring subject to MDE approval.

Based on the data we have collected during the previous permit cycle, there were exceedances for several metals parameters, but the data did not suggest a significant industry-wide issue for any single parameter. The use of benchmarks in place of annual monitoring will allow facilities and the Department to zero in on the parameters of concern on a site-specific basis. The specific facilities which are proven to have difficulty meeting benchmarks for parameters will be forced to address those through corrective actions while facilities meeting their benchmarks will not face unnecessary limitations or other requirements.

Table 1: Water Quality Benchmarks for Toxic Substances

Parameter	Benchmark (mg/L)	Monitoring Frequency	Source of the Benchmark
Arsenic	0.34	1/Quarter	Acute freshwater criteria at COMAR 26.08.02.03-2 G(1) Table 1
Cadmium	0.002	1/Quarter	
Chromium (III)	0.57	1/Quarter	
Copper	0.013	1/Quarter	
Lead	0.065	1/Quarter	
Mercury	0.0014	1/Quarter	
Nickel	0.470	1/Quarter	
Silver	0.0032	1/Quarter	
Zinc	0.120	1/Quarter	
Aluminum	1.10	1/Quarter	

BMPS for Land Transportation and Warehousing Activities – The 19CM regulates stormwater discharges associated with industrial activity from land transportation and warehousing. Transportation facilities typically have areas for vehicle and equipment storage, cleaning, and maintenance, fueling and material storage. They can use on-site chemicals like solvents, diesel fuel, gasoline hydraulic fluids, antifreeze, and transmission fluids. This permit does not authorize the discharge of vehicle/equipment/surface washwater, including tank cleaning operations. Such discharges must be authorized under a separate NPDES permit, discharged to sanitary sewer in accordance with applicable industrial pretreatment requirements, or recycled on site. .

Tier II Antidegradation Requirements for New Dischargers or Increased Dischargers (Part III.D.2.c of the Permit).

This provision applies to new dischargers, new sources, and existing dischargers whose discharges that flow directly to waters designated by a state or tribe as Tier II (defined in Appendix E) have increased. (In general, any existing discharger required to notify the Department of an increased discharge consistent with Part II.F.1 (i.e., a “planned changes” report) will be considered to have an increased discharge.) Such dischargers must, for antidegradation purposes, implement any additional measures that the Department determines are necessary to comply with the permit’s WQBEL, including the applicable antidegradation requirements (COMAR 26.08.02.04-1 antidegradation policy pursuant to 40 CFR 131.12). The Department may also, per the applicable antidegradation policy, notify operators that they

cannot be covered under the 19-CM due to the unique characteristics of the discharge or the receiving waters, and that they must apply for an individual permit. Conversely, if the Department does not notify an operator that additional measures are needed to ensure compliance with antidegradation requirements, the operator is authorized to discharge under this general permit.

Waters designated as "Tier II" by Maryland can generally be described as follows: Tier II protects "high quality" waters -- waterbodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. Use the interactive Tier II webmap located at: <https://mdewin64.mde.state.md.us/WSA/TierIIWQ/index.html> to assist you. On the map, Tier II watersheds colored orange have NO assimilative capacity.

Water quality may be lowered in Tier II waters where "allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." 40 CFR 131.12(a)(2). The process for making this determination is what is commonly known as "Tier II review." The essence of a Tier II review is an analysis of alternatives to the proposed new or increased discharge. 63 Fed. Reg. 36, 742, 36,784 (col. 1)(July 8, 1998). In no case may water quality be lowered to a level that would interfere with existing or designated uses. 40 CFR 131.12(a)(1), 122.44(d). Maryland has broad discretion in identifying Tier II waters. 63 Fed. Reg. at 36,782-83. In addition, states and tribes may adopt what is known as a "significance threshold." A "significance threshold" is a de minimis level of lowering of water quality below which the effects on water quality do not require Tier II review. *Id.* at 36,783.

Part IV. Corrective Actions

Part IV references a new topic that was not included in the 11-CM permit. It describes conditions that trigger need for corrective action based on whether the condition needs to be eliminated (e.g., if water quality standards are not met) or if a SWPPP review is required to determine if a SWPPP modification is needed. Failure to conduct a required corrective action is a permit violation in and of itself, in addition to any underlying violation(s) that may have triggered the initial requirement for corrective action.

Conditions requiring review and revision to eliminate problem: Registrants are required to review and revise the selection, design, installation, and implementation of their control measures in response to any of the following conditions: an unauthorized release or discharge occurs at the facility; a discharge violates a numeric limit; the registrant becomes aware or department determines that control measures are not stringent enough for the discharge to meet applicable water quality standards; an inspection or evaluation of your facility by a Department official determines that modifications are necessary to meet the non-numeric effluent limits; or a routine facility inspection, or comprehensive site inspection finds that control measures are not being properly operated and maintained.

Conditions requiring review to determine if modifications are necessary: Registrants are required to review the selection, design, installation, and implementation of their control measures to determine if modifications are necessary to meet effluent limits if construction or a

change in design, operation or maintenance at the registrant's facility significantly changes the nature of pollutants discharged in stormwater from the facility, or increases the quantity of pollutants discharged.

Corrective action deadlines: The permit includes specific deadlines for registrants to take corrective actions. It requires that within 24 hours following identification or discovery of any of the triggering conditions, that the registrant must document such discovery. Exceedance of a numeric limit requires immediate notification to the Department. Subsequently, within 14 days of the discovery, the registrant must document corrective actions taken or to be taken to eliminate the condition and any additional review necessary to further investigate the condition. If the registrant determines that changes are necessary following the review, any modifications to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event.

Corrective action report: For any triggering event described above, registrants must document basic information in a report describing the event and the registrants' response to that event. As described above, the permit establishes conditions for both 24-hour and 14-day response periods. Registrants are required to maintain a copy of this documentation with their SWPPP as well as include this information in an annual report.

A Summary of the Proposed AIM Level Triggering Events & Responses. To improve monitoring for toxicity criteria, MDE is proposing a tree-stage protocol that gets progressively more prescriptive with required Stormwater Control Measures (SCMs) and structural changes, and thus more protective when monitoring results exceed or repeatedly exceed benchmark values. The three AIM levels are: AIM Level 1, AIM Level 2, and AIM Level 3. Operators would be required to respond to different AIM levels with increasingly robust control measures, including applying for an individual NPDES permit, depending on the nature and magnitude of the benchmark exceedances. MDE proposes to retain exceptions to AIM triggers based on natural background sources or run-on for all AIM levels.

An exceedance of a benchmark itself does not constitute a permit violation, provided the operator takes the required responses within the allowable deadlines to evaluate the effectiveness of its control measures, with follow-up AIM response where required.

AIM Level 1 (Year 1)

Part IV.B.1a Level 1 Triggering Event

AIM Level 1 has two proposed triggering events. The first trigger of AIM Level 1 is based on a quarterly sampling annual average benchmark exceedance. Here, AIM is triggered when a four-sample average exceeds a benchmark value. If the facility takes less than four benchmark samples and the results are such that an exceedance of the four-quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than four times the benchmark value) then the facility has exceeded the benchmark, triggering AIM Level.

The second trigger of AIM Level 1 is based on the same principle as the first trigger, only this time the exceedance that triggers AIM is a single sampling result that is more than four times the benchmark value. This means that even with three other samples achieving zero values, that single sample would still make the four-sample average exceed the benchmark by up to but less than or equal to two times the benchmark value.

Part IV.B.1.b AIM Level 1 Responses

There are three proposed responses for any Level 1 trigger. First, the facility would need to immediately review existing control measures, the SWPPP, and other on-site activities to see if any actions or SWPPP revisions are necessary; portions of the facility's control measures, SWPPP, and other on-site activities should be reviewed including: sources of pollution, spill and leak procedures, non-stormwater discharges, and selection, design, installation, and implementation of your control measures. Secondly, after reviewing the control measures and SWPPP, the facility would install those additional implementation measures, such as a single comprehensive clean-up, a change in subcontractor, a modification or replacement of an existing SCM, and/or increased inspections, to bring the exceedances below the parameter's benchmark threshold in order to suspend the AIM process. However, a facility could determine that, after reviewing the control measures and SWPPP, that nothing further needs to be done to achieve lower pollutant levels. In this case, the facility would be required to document per Part IV.C and include in the annual report why it expected its existing SWPPP and SCMs to bring exceedances below the parameter's benchmark threshold for the next 12-month period. With the variability of stormwater and the small sample set of monitoring results, it may be reasonable for the facility to conclude that the current control measures are performing appropriately and further monitoring will support that the facility's existing controls will achieve the necessary pollutant reductions. The third response to an AIM Level 1 trigger is that quarterly monitoring would continue into the next year. Even if AIM was triggered in the first quarter of the first year of monitoring, the Department proposes that the facility would first comply with AIM Level 1 requirements, continue monitoring for the remaining three quarters, and then continue monitoring into the following year. The Department considers this a trigger to require submitting the comprehensive annual report so that plans contained in there may be accessed by the Department or interested parties.

Part IV.B.1.c AIM Level 1 Deadlines

The Department proposes that if any actions or modifications to the control measures are necessary from an AIM Level 1 trigger that the operator would be required to implement those actions or modifications within 14 days of the occurrence of the triggering event. If doing so within 14 days is infeasible, the operator would be required to document per IV.C why it is infeasible and then would be required to implement such actions or modifications within 45 days. The Department is proposing the 14-day deadline for AIM Level 1 responses because achieving benchmark averages under the threshold to avoid further AIM requirements should provide the impetus to make timely changes, if deemed necessary.

AIM Level 2 (Year 2)

Part IV.B.2.a AIM Level 2 Triggering Events

The proposed AIM Level 2 triggering events are similar to Level 1, but are in the second year of performing benchmarks monitoring under 19-CM permit.

Part IV,B.2.b AIM Level 2 Responses

Continued exceedances of Level 2 will require installation of structural source controls and/or treatment controls. The treatment technologies or treatment train must be appropriate for the pollutants that triggered AIM Tier 2 and must be more rigorous than the pollution prevention-type measures employed under AIM Level 1. The controls selected must have pollutant removal efficiencies that are sufficient to bring the exceedances below the benchmark threshold. Professional engineer, stormwater professional or geologist should be consulted to assist with the installation of selected controls for the discharge point in question and for substantially similar discharge points, unless for substantially identical outfalls it is demonstrated that AIM Level 2 requirements are not triggered at all discharge points.

As an alternative to structural source controls and/or treatment controls, the operator may opt to increase impervious surfaces for managing industrial stormwater, if such an approach is appropriate and feasible considering the site site-specific conditions. If feasible, the execution must be compliant with regulations for ground water protection and underground injection control (UIC). The analysis that shows infiltration/retention selection must be provided to the Department prior to choosing this option and the Department must concur with the selection.

The final response to an AIM Level 2 trigger is that quarterly monitoring would continue into the next year. The Department considers this a trigger to require submitting the comprehensive annual report so that plans contained in the report may be accessed by the Department or interested parties.

Part IV.B.2.c AIM Level 2 Deadlines

The operator must install the appropriate structural source and/or implement all feasible SCMs to comply with Level 2 within 30 days of the occurrence of the triggering event and document per Part IV.C the location and type of control measures installed and implemented at the site to achieve the non-numeric effluent limits in Part III.D.1.b, and explain how the measures will achieve benchmark thresholds. If it is not feasible within 30 days, the permittee may take up to 90 days to install such measures, and documenting in the SWPPP why it is infeasible to install the measure within 30 days. The Department may also grant additional extension beyond 90 days, based on an appropriate demonstration by the operator.

AIM Level 3 (Year 3)

Part IV.B.3.an AIM Level 3 Triggering Events

The proposed AIM Level 3 triggering events are similar to Level 1, but are in the third year of performing benchmark monitoring under 19-CM permit.

IV.B.3.b AIM Level 3 Responses

The Level 3 response would require an operator to consult a professional engineer, stormwater professional or geologist to prepare an action plan. The operator may take 30 days to select the professional, and an additional 30 days to prepare the action plan for the Department. The action plan should include milestone dates for the installation of additional structure controls, or enhancing existing structural controls. The action plan should provide an adequate demonstration to the Department that the discharge from the facility would not result in any exceedance of water quality standards. The demonstration to the Department must include certain minimum elements in order to be considered for approval by the Department including but not limited to: applicable water quality standards, stormwater flow rates, in-stream flow rates, ambient concentration of the parameters of concern in the receiving waters, any relevant dilution, the hardness of the receiving water, etc.

If Department disapproves such a demonstration the operator must install structural source controls and/or treatment controls within specified time period to meet the water quality benchmarks. If the facility continues to exceed the quarterly benchmark threshold for the same parameter and cannot demonstrate at least a 20% reduction from the previous year performance, even after installation of structural source controls or treatment controls, the Department may revoke coverage under this permit through the development of an individual permit to address site specific water quality limits.

The operator must continue quarterly benchmark monitoring into the next year, and must attach an updated Comprehensive Annual Report with the next DMR submittal.

Part IV.B.3.c AIM Level 3 Deadlines

The Department requires operator to complete the installation of appropriate structural and/or treatment control within 90 days of the Level 3 triggering event. If is not feasible within 90 days, the operator may take additional 30 days to install such measures, documenting in the SWPPP why it is infeasible to install the measures within 90 days. The Department may grant an extension beyond 120 days under documented special circumstances.

The operator does not have to install structural source controls or treatment controls if, with the Department agreement, the operator determines and documents in the SWPPP that the exceedance is solely attributable to natural background sources, run-on sources, or due to an abnormal event.

PART V: Inspections, Monitoring and Reporting

Part V of the 19-CM permit specifies requirements on how to monitor discharges, data recording and retention, submission of testing results, and instructions to follow if a permit non-compliance occurs. This entire section is relatively standard across all of the Department's general NPDES permits and most of it has been carried over verbatim from the 11-CM, with the exception of the section regarding the online discharge monitoring requirements (NetDMR). On October 22, 2015, EPA published the NPDES Electronic Reporting Rule to modernize Clean Water Act reporting. As a result, this permit requires the submission of all reports electronically via EPA's (and MDE's) reporting website, NetDMR. The Department has included its standard language regarding this requirement, which is shared among all of its NPDES permits. The provision also includes inspection requirements for active mining areas (Part V.E). More information regarding this rule can be found at www.epa.gov/compliance/npdes-ereporting.

This Part contains provisions for monitoring discharges to water quality impaired receiving waters. The following is a step-by-step discussion on how an operator should determine appropriate monitoring requirements.

Operators must indicate in their NOI whether they discharge to an impaired water, and, if so, the pollutants causing the impairment, or any pollutants for which there is a TMDL. To assist operators in determining their receiving waters' information, the Department does provide mapping resources including receiving waters' information and their impairment status based on the address of stormwater discharge points the operator provides on the NOI form. This information is also readily accessible at <https://mde.maryland.gov/programs/Water/TMDL/DataCenter/Pages/index.aspx>.

If the discharge is to an impaired water, the monitoring requirements under Part V.A.5.a are triggered; otherwise, a facility has no obligations under Part V.A.5. The Department specifies that facilities will be considered to discharge to an impaired water if the first Water of this State to which they discharge is identified by the state or EPA pursuant to Section 303(d) of the CWA as not meeting an applicable water quality standard, or has been removed from the 303(d) list because the impairments are addressed in an EPA-approved or established TMDL, or is covered by pollution control requirements that meet the requirements of 40 CFR 130.7(b)(1). For discharges that enter a separate storm sewer system prior to discharge, the first Water of this State discharged to is the waterbody that receives the stormwater discharge from the storm sewer system.

When developing TMDLs, the Department and EPA evaluate contributions from upstream segments and contributing waterbodies. As such, in some instances, upstream sources may be identified as a contributor to an impairment. Where the Department has reason to believe that a permitted facility has the potential to not meet applicable water quality standards, notwithstanding any indication in a facility's NOI that it does not discharge to an impaired water, the Department may require the operator to perform additional monitoring

and/or adopt additional control measures to address the potential contribution to the impairment, i.e., to ensure that the discharge is controlled as necessary to meet water quality standards. In these instances, the Department will notify the operator, in writing, of any additional obligations, including monitoring requirements, to meet such water quality-based effluent limit.

The permit requires facilities to monitor for all pollutants for which the receiving waterbody is impaired, with a few noteworthy exceptions as discussed below. For waters impaired by pollutants without an EPA-established or approved TMDL, monitoring is required where a standard analytical test method in 40 CFR Part 136 exists for the pollutant or surrogate parameter. If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, the parameter to be monitored is total suspended solids (TSS). If the pollutant of concern is an indicator or surrogate pollutant, then the pollutant indicator (e.g., dissolved oxygen) must be monitored. No monitoring is required when a waterbody's biological communities are impaired but no pollutant is specified as causing the impairment, or when a waterbody's impairment is related to hydrologic modification, impaired hydrology, or other non-pollutant (e.g., exotic species, habitat alterations, objectionable deposits). If a TMDL has been approved or established that applies to the discharge, the Department will notify the facility of any monitoring requirements based on any assumptions and requirements of the TMDL and any wasteload allocation for the discharge.

Part V.A.5.a Facilities Required to Monitor Discharges to Impaired Waters

The appropriate impaired waters monitoring frequency is determined based on whether there is an approved or established TMDL for the pollutant in the impaired water.

Discharges to impaired waters without an EPA-approved or established TMDL

For those facilities discharging to impaired waters without an approved or established TMDL, annual monitoring is required for each discharge point discharging to an impaired water. For the 19-CM, the Department proposes that operators compare the list of industrial pollutants identified in Part III.E.3 to the list of pollutants for which the waterbody is impaired and for which a standard analytical method exists (see 40 CFR Part 136). The Department proposes that operators must monitor for pollutants that appear on both lists, including "indicator" or "surrogate" pollutants that clearly overlap those lists. This proposal potentially narrows the list of pollutants that operators must monitor for and ensures those pollutant parameters are associated with the industrial activity.

The Department proposes that following three consecutive years of monitoring, impaired waters monitoring is no longer required if the pollutant of concern is not detected and is not expected to be present in the discharge, or is detected but the operator determined that the pollutant's presence is caused solely by the natural background levels. The basis for

discontinuing impaired waters monitoring under this Part must be documented and retained with the SWPPP.

Operators are advised to follow the same guidance provided in Part IV of this Fact Sheet in determining if the natural background exception is applicable. Operators should consult the Department for help, if needed. The same exception may also be available to discharges of pollutants attributed solely to run-on sources. This exception is only available after discussing the situation and receiving guidance and approval from the Department's compliance program.

Any monitoring requirements associated with impaired waters without a TMDL will be automatically prepopulated on a facility's registration letter and the DMR forms in the electronic DMR tool based on the information provided on the NOI form.

The Department notes that, as with both types of monitoring in the 19-SW, operators can combine monitoring activities where requirements are duplicative (e.g., if effluent limits and impaired water monitoring both require testing for the same parameter at the same discharge point).

Discharges to impaired waters with an EPA-approved or established TMDL

If a facility discharges to an impaired water with an approved or established TMDL, operators must monitor for the pollutant(s) for which the TMDL was written unless the Department informs the operator that they are not subject to such a requirement consistent with the assumptions and requirements of the TMDL and its wasteload allocation. The operator must contact the Department's permit program for monitoring parameters and frequency.

The monitoring requirements in Part V.A.5 are intended to provide the Department with further information on the impacts stormwater from permitted industrial facilities have on impaired waters, and to help ensure that the facilities are not causing or contributing to the impairment. For discharges to impaired waters that do not yet have an approved TMDL for pollutants of concern, these monitoring data are important for developing the TMDL to identify potential sources of the pollutants causing the impairment(s) as well as to identify sources that are not likely to contribute to the impairment(s) and thus may not be included in the TMDL or its wasteload allocation. The data are also important for assessing whether additional water quality-based effluent limits, either numeric or qualitative, are necessary on a site-specific basis to ensure that facilities meet water quality standards. For discharges of pollutants to waters with an approved or established TMDL, monitoring data provides a means of ensuring that discharges are controlled consistent with the TMDL, as well as a useful tool to assess the facility's progress toward achieving necessary pollutant reductions consistent with any wasteload allocation.

Part VI: Earth-Disturbing Activities Conducted Prior to Active Mining

Part VI was not included in the 11-CM permit. This part does not apply to stormwater discharges associated with construction activity, defined in 40 CFR 122.26(b)(14)(x) and (b)(15), which acknowledges the distinction between construction and other types of stormwater discharges associated with industrial activity. An exception to this is for construction associated with mining activities, where operators are able to cover earth-disturbing activities in MSGP in lieu of obtaining separate coverage under the General Permit for Stormwater Associated with Construction activity (EPA included salient earth disturbance-related requirements for mining sectors in Part 8 of MSGP). In lieu of this, earth-disturbance activities conducted prior to active coal mining activities can be covered by 19-CM (i.e. the requirements that are not expressly for earth-disturbance). This mining related construction exception provides a more streamlined approach for coal mining operators preferring to be covered by one, instead of two permits.

The provision provides coverage for two classes of earth-disturbing activities conducted prior to active mining activities. First class covers mine site preparation including 'cutting new right of ways' (except when related to access road construction) providing access to the mine site for vehicles and equipment. The second class provides coverage for construction of staging areas to prepare for erecting structures such as house project personnel and equipment and construction of access roads.

The earth-disturbance-related mining requirements in this Part are largely similar to requirements in the MDE's General Permit for Discharges of Stormwater Associated with Construction Activity (14GP), which in general regulates earth disturbance of an acre or more. The requirements include minimizing the area of disturbance, erosion and sediment control design requirements, natural buffers, native topsoil preservation, minimize steep slope disturbances, minimize soil compaction, dewatering practices, pollution prevention, and site stabilization.

The provision clarifies if pre-active mining earth disturbances do not result in an active mine being established, registrants must stabilize the site before permit termination. However, when active mining activities are to occur and a well-delineated active mining area is established, disturbed areas within the active mine area would not need to be stabilized, because the active mining-related 19-CM requirements would then apply up to the point of mine closure. The earth-disturbing activities that occur on areas outside the active mining area (e.g., for expansion of the mine into undeveloped territory) are considered earth-disturbing activities conducted prior to active mining activities, and must comply with the requirements in this Part.

The 19-CM also recognizes that mines are often subject to other regulations and non-NPDES permits (e.g., exploration permit, mining permit, reclamation plan, Surface Mining Control and Reclamation Act (SMCRA)). If these other regulations/ permits have overlapping requirements with the 19-CM and a registrant can demonstrate and document compliance with the other regulations/ permits, MDE shall consider that the registrant has complied with the relevant requirements in the 19-CM.

Part VII: Standard Permit Conditions

The standard permit conditions have been organized to be consistent with the recently issued general permits by the Department. There have been no substantial changes to the language of these conditions from the 11-CM permit.

Part VIII: Authority to Issued General Permits

This section identifies the statutes which provide authority for the Department to issue this and all other general NPDES permits. Language has been unchanged from the 11-CM.

Appendices:

Appendix A – Definitions, Abbreviations, and Acronyms: The standard terms and definitions document have been moved into a separate Appendix A. Those that appeared in the 11-CM were compared with recently issued general permits, and if required in this permit, they have