I. High Priority Areas: Coal Mining Implementation in Virginia

II. Problem Description

Coal Mining activities are one of the leading causes of water impairment in the Mid-Atlantic Region. For example, in Virginia's Tennessee-Big Sandy Basin, which includes most of the mines in Virginia, 16% of streams have been impaired by mining. Parameters of concern include iron, aluminum, manganese, chloride, Total Dissolved Solids (TDS), Total Dissolved Solids (TSS) and biological impairment. The office of NPDES Permits and Enforcement will work closely with VA DMME to ensure a strong NPDES regulatory program is in place to protect human health and the environment. This will be accomplished by coordinating with the state NPDES mining program to ensure that NPDES permits are issued in accordance with governing laws and regulations. Oversight and coordination with the mining enforcement program will reduce the noncompliance rate and identify opportunities for enforcement actions to address widespread noncompliance and multi-state mining operations.

DMME Comments

1. *DMME regulates a number of mining activities in Virginia; will the proposed work plan include mining sectors such as aggregate, phosphate, sand and gravel or will it focus solely on the coal mining sector? This section should specifically identify coal mining if that is the sole focus. Change made*
2. *The problem description states that mining is a leading cause of impairment, is this statement referring to coal mining or all mining sectors? Change made*
3. *TMDLs conducted in the southwest Virginia coalfields have not identified iron and aluminum as stressors. These parameters are typically of concern where there is an abundance of acid mine drainage. Virginia coalfields have few instances of acid mine drainage. ... Mining activities in Virginia may not be abundant of acid mine drainage but we have seen effluent characterization with aluminum levels greater than 750 ug/l. This type of effluent should be identified as parameter of concern and subject to RP.*
4. *Is Virginia perceived to have an elevated noncompliance rate and widespread noncompliance with respect to its coal mining NPDES permits? We claim only that our efforts are to reduce the non-compliance rate. This is a goal for all our programs.*
5. *What is the nature and scope of the oversight and coordination being suggested? This plan defines the scope of the oversight and coordination, in addition to the core permit review responsibilities. ...One tool that we could consider with VA is the use of the checklist to expedite permit review that we are working with PA..*

III. Virginia Mining Program Status

Virginia administers the NPDES mining permitting and enforcement program in Region III. A 2015 state review framework (SRF) review confirmed DMME's progress implementing compliance and enforcement recommendations from a 2010 mining enforcement program review, although DMME does not document gravity and economic benefit considerations in enforcement penalty calculations. DMME continues work to enhance their NPDES data management capacity to meet the requirements of the NPDES Electronic Reporting Rule.

While Virginia's NPDES Mining program is small, their permits include valley fills and involve the narrative criterion and TMDL implementation, where TDS and TSS have been identified as the cause of water quality impairment. VA is attempting to implement watershed-wide wasteload allocations using the VA DMME TMDL Wasteload Evaluation Database . In 2010, EPA conducted a Mining NPDES PQR, which identified 5 areas for improvement, which have been included in section IV- Issues to be addressed.

DMME Comments

1. *The Virginia TMDL approach is not a purely watershed one as each permit has individual limits applied when the entire watershed is over its allocation. The burden of waste load reduction in cases where the watershed exceeds the allocation is proportional to the waste load contribution by a particular operation. VaDEQ operates under a similar philosophy with respect nutrient commitments for the Bay – they refer to it as a Watershed General Permit – we are using this term as short hand*

IV. Issue to be Addressed

- Ensure VA DMME is implementing a strong NPDES permitting and enforcement program that meets Federal requirements.
- Following OW consultation and if necessary, NPDES permitting of discharges from bond released mining activities and ~~o~~Outstanding ~~Red River Coal~~ specific objections.
- Penalty calculation methodology to incorporate economic benefit.
- Incorporation of the following considerations when developing mining permits:
  - Reasonable potential analysis (RP).
  - Inclusion of background water quality data in RP and water quality based effluent limit (WQBEL) development.
  - All parameters of concern identified as having RP have an assigned WQBEL.
  - Use of EPA criteria where the State lacks relevant water quality criteria, i.e., aluminum and chloride.
  - Where TMDLs identify specific waste load allocations for TDS, TSS or other parameter then the NPDES permits shall include WQBELs for those parameters consistent with the TMDL.
- VA's approach to addressing removal of instream outfalls should be evaluated.
- Resolve the VA Withdrawal petition.
- Ensure VA meets its obligations under the E-reporting Rule.

DMME Comments

- *With regard to bullet #2, DMME has no jurisdiction over sites that have the bond released, and therefore, has no authority to require any monitoring. In light of this and the lawsuit involving Red River on this issue, it is our opinion that the referenced specific objection need not be a part of the Plan, although we understand you are just mentioning*

it as an issue to be resolved. We removed specific mention of Red River. This is an issue that needs to be addressed and we will use the activities portion to explain further

- *DMME would like to include a discussion of funding from EPA for its NPDES programs as the agency currently receives no federal funding related to administering the NPDES program. The 106 grants are state grants. The disposition of those grants are the responsibility of the state. VaDEQ is the recipient of the grant. We will list it as an issue to be discussed between VaDEQ/VaDMME/ EPA in activities*
- *Virginia currently includes RP when considering parameters with a numeric effluent limit and with respect to TDS utilizing WET. What specific concerns does EPA have regarding the process? Is EPA suggesting a numeric WQBEL for TDS? The RP process consists of the following elements:*
  - *DMME needs to evaluate the effluent characterization to identify parameters of concern, i.e. effluent concentration greater than the instream criteria.*
  - *For those parameters identified as parameter of concern DMME needs to perform a reasonable potential analysis that should include available dilution, effluent variability, instream criteria including implementation of the narrative water quality criteria. For those parameters where RP is determined, DMME must develop water quality-based effluent limits that could include a compliance schedule.*
  - *For those waters with a TMDL, the WQBEL must be consistent with the TMDL.*
- *Virginia has an instream standard for chloride. VADEQ determines what parameters are to be included in Virginia's surface water criteria and aluminum is not currently listed nor has it been adopted by the VADEQ. It would be difficult for DMME to adopt an EPA standard for aluminum in coal mining discharges when DEQ regulated discharges were not required to meet that same standard. 40 CFR 122.44(d)(1)(vi), allows the permit authority to use an EPA water quality criterion as interpretation of the narrative criterion to perform RP. There is regulatory basis to use the EPA aluminum criterion. Also, VA should add to its triennial review of its WQS the adoption of aluminum water quality criteria.*
- *This requirement does not seem to be in accordance to our current method of utilizing BMPs to reduce waste load in the TMDL watersheds as it suggests a numeric limit to be calculated on a permit by permit basis and included as a numeric limit in NPDES permits. The main concern that we have with the use of BMPs for TDS is that we do not have any documentation where BMPs are effective to address ionic impairments, there is a research paper from Barbara Butler that confirm this statement.*

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V. Activity Plan

- EPA will work with the VA DMME mining program to the remaining area of improvement identified in the Round 3 SRF report, namely incorporation of economic benefit in the penalty calculation.

- Coordinate with VADMME to develop for federal fiscal year 2019 a strategy to address NPDES individually permitted major and non-major facilities in significant non-compliance and category 1 non-compliance. For those sources that are currently in significant noncompliance (SNC) or (category 1) CAT 1, EPA will work with VADMME to bring them into compliance in accordance with the expectations of the Enforcement Management System and, if necessary, use its inspection and enforcement authorities.
- EPA will conduct compliance assurance activities in consultation with VADMME where necessary.
- EPA will conduct quarterly enforcement calls to discuss facilities in Significant Non-Compliance/Category I Non-Compliance, SRF recommendations, State enforcement activities, areas where federal enforcement presence may be warranted and NPDES Electronic Reporting Rule implementation.
- Following consultation with Office of Water, if determined necessary, EPA will work with VA DMME and DEQ on the development of an NPDES permit for the valley fill facilities where Virginia has removed instream ponds where discharges occur through man-made conveyances.
- EPA will initiate monthly permit calls to address the following issues:
    - Explore options to development and implementation of processes to streamline and minimize ~~realtime~~real-time permit review.
    - Upon consultation with Office of Water, resolve~~d the~~ outstanding ~~Red River Coal Mine~~ Specific Objections.
    - Resolve Outstanding withdraw petition.
    - If necessary, development of an NPDES permit for the valley fill facilities where Virginia has removed instream ponds.
- EPA will develop, in consultation with DMME and other mining states, a mining permit and compliance assurance assessment program in 2018. EPA will conduct an assessment of the DMME mining program in 2019.
- Provide assistance to VADMME for NPDES Electronic Reporting Rule implementation activities through monthly conference calls with EPA Region 3.
- EPA will draft a response to the Petition to withdraw NPDES authorization in FY 2020
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- EPA will continue to coordinate with VA DMME to monitor the following cases:

Case	*Action*	*Status*
Alpha Natural Resources	Consent Decree	Consent Decree Monitoring, Quarterly Reports. Considering consent decree modification and termination of certain facilities.
Arch Coal (ICG)	Consent Decree	Consent Decree Monitoring, Quarterly Reports
Southern Coal Corporation (Justice)	Consent Decree	Consent Decree Monitoring, Quarterly Reports. Considering consent decree modification. Recent demand letter sent for unpaid stipulated penalties.

DMME Comments

1. *DMME presented to EPA, its current and recently updated guidelines on the incorporation of economic benefit in penalty calculations. In a follow-up conference call, DMME voiced its opinion that many of the violations that EPA considers Clean Water Act (CWA) violations are in fact violations of the Surface Mining Control and Reclamation Act (SMCRA) and are handled as such. We understand there may be further discussions on this issue. Agreed*
2. *In reference to bullet #6 and its sub-bullets, DMME contends, as mentioned earlier, the Red River Specific Objection should not be a part of this plan. Struck Red River . However, there is a need to resolve this specific objection. We will be consulting with HQ.*

   With regard to the outstanding withdrawal petition, DMME contends that it is up to EPA to resolve. DMME has not heard from the petitioners in several years and implemented changes as a result of the face-to-face meetings and notified EPA of these changes.

   We acknowledge that EPA must respond to the petition. This is not scheduled until 2020. This is intended to give you an idea of our priority activities.

   As mentioned before, the issue of NPDES permitting for valley fills where Virginia has approved removal of instream ponds has been tabled. We will be consulting with OW on their determination. The report out from the meeting that we received is that this issue was punted to OW for decision.

   DMME agrees that we should explore options to streamline and minimize real-time permit review. We believe the process that has been implemented by DMME has been successful, specifically the permits involving TMDL's, and EPA has approved many permits using our approach to watershed water quality improvements.

3. *What are EPA expectations from DMME for the above reference cases since these cases are between EPA and the companies, two of which no longer operate in Virginia? There are no expectations from Virginia where Virginia is not a partner. It is intended to provide you information on the scope of our activities.*

4. *What are the specific expectations of the Enforcement Management System that are being referenced here? Is EPA implying that it will take enforcement and inspection actions in addition to Virginia's current actions? The enforcement management system is a compendium of guidance relative to implementation of the NPDES compliance assurance program. See: https://www.epa.gov/enforcement/enforcement-management-system-national-pollutant-discharge-elimination-system-clean*

5. *What types of EPA presence and what kind of instances are being suggested by the statement "areas where federal enforcement presence may be warranted"? This presence may be interpreted by the regulated community as a threat to state primacy. "Areas where federal enforcement presence may be warranted" as indicated is to be discussed with the state. It may concern a permittee who habitually violates and state actions have not brought a facility into*

compliance, addressing violations discovered during an EPA inspection; supporting a regional or national case development, etc. This is always discussed with the state, and where agreement is not reached it is elevated for discussion to senior management. The concept of state primacy does not exist in the NPDES program as it does in the SMCRA program. In the NPDES program, EPA authorizes the state to implement the program according to the MOA signed between the state and EPA. As part of that MOA, EPA reviews certain classes of permits as required under regulation and maintains independent inspection and enforcement authority as delineated in the MOA

6. *How does EPA propose to include other states in a mining permit and compliance assurance assessment program in 2018? Will other states be involved prior to implementing a program here in Virginia? In FY 2018, probably 2019, we would like to work with the three principal mining states (VA, WV, and PA) and develop assessment objectives and protocols that all parties can agree on.*

VI. Resources Needs

Resource needs.

DMME Comment

1. *DMME does not receive grants or any other monies from the EPA for our program. EPA should assist DMME in securing such funds as the electronic reporting rule alone will require a significant investment in time for at least one DMME employee. The work plan will also involve significant DMME resources. EPA has attempted to provide DMME support and had provide HQ contract money to assist in the electronic uploading of information from your system to EPA's. However, for regular yearly funding, it is the 106 grant program. The disposition of those grants within the state are the responsibility of the state. VaDEQ is the recipient of the grant.*

VII. Measures

The following measures will be tracked to determine success of this effort:

- Significant Non-Compliance and Category I violation rate.
- Complete Petition Response for NPDES Program Withdraw.
- Improvements in data metrics.
- Outstanding PQR/SRF/Mining Assessment Actions Addressed.
- Time for EPA review of permits.

- Permit Backlog.

DMME Comment

1. *Performance measures should be tracked with the understanding that Virginia's compliance/response to the work plan can only be proportional with the amount of resources available to DMME. These are our internal measures and should not add any additional burden upon you.*