UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MEMORANDUM

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SUBJECT: Review of Clean Water Act §402 Permitting for Surface Coal Mines by Appalachian States: Findings & Recommendations

EPA's Office of Wastewater Management, Water Permits Division is pleased to provide you with the final report titled, "Review of Clean Water Act §402 Permitting for Surface Coal Mines by Appalachian States: Findings & Recommendations."

The report summarizes Permit Quality Reviews (PQRs) conducted for Kentucky, Ohio, Tennessee and West Virginia. These reviews address one of the commitments made in the *Memorandum of Understanding among the U.S. Department of the Army, the U.S. Department of the Interior, and the U.S. Environmental Protection Agency Implementing the Interagency Action Plan on Appalachian Surface Coal Mining* to "improve and strengthen oversight and review of water pollution permits for discharges from valley fills under [Clean Water Act] §402 … by taking appropriate steps to assist the States to strengthen State regulation, enforcement, and permitting of surface mining operations under these programs." The PQRs were conducted by teams of EPA Headquarters and Regional staff, working closely with States. We appreciate your staff's time and commitment to this important effort. This review was useful for better understanding National Pollutant Discharge Elimination System (NPDES) permits for surface coal mining and identifying opportunities for EPA Headquarters, Regions and its States to strengthen permits to be more consistent with Clean Water Act requirements.

Please share this report with your States. If you have any questions regarding this effort, please contact Tom Laverty at (202) 566-1869.

Enclosure

Review of Clean Water Act §402 Permitting for Surface Coal Mines by Appalachian States: Findings & Recommendations

July 13, 2010

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Executive Summary

In June 2009, the Department of the Army, Environmental Protection Agency (EPA) and the Department of the Interior (DOI) signed the *Memorandum of Understanding among the U.S. Department of the Army, the U.S. Department of the Interior, and the U.S. Environmental Protection Agency Implementing the Interagency Action Plan on Appalachian Surface Coal Mining* (June 11, 2009). The Memorandum of Understanding (MOU) reflects an agreement among the agencies to strengthen the environmental reviews of Appalachian surface coal mining projects under the Clean Water Act (CWA), National Environmental Policy Act (NEPA), and the Surface Mining Control and Reclamation Act (SMCRA). Under the MOU, EPA and the other signatory agencies agreed to take both short- and longer term actions that would reduce the harmful environmental consequences of surface coal mining. The short-term actions were to be undertaken in 2009 pursuant to existing laws, regulations, and other authorities. The agencies will also implement a longer term process for gathering public input, assessing the effectiveness of current regulatory authorities and procedures and, where appropriate, taking regulatory action.

One of EPA's short-term MOU commitments was an agreement to "improve and strengthen oversight and review of water pollution permits for discharges from valley fills under [Clean Water Act] §402 … by taking appropriate steps to assist the States to strengthen State regulation, enforcement, and permitting of surface mining operations under these programs." This document provides the findings of a Permit Quality Review (PQR) performed to assess Appalachian surface mining National Pollutant Discharge Elimination System (NPDES) permitting under CWA §402. This document also provides suggestions on how to improve the quality of these NPDES permits.

The PQR findings showed that current permitting practices can be more effective in addressing adverse environmental and water quality effects associated with surface coal mining by more robustly conducting analyses required by the CWA. Based on the review, EPA made several preliminary findings regarding the four Appalachian State NPDES programs reviewed, including:

- The four States reviewed do an effective job in implementing technology-based limitations based upon the coal mining effluent limitations guidelines (40 CFR 434).
- There was little evidence in the NPDES permit administrative records to demonstrate that meaningful water quality impact assessments are performed for facilities covered under NPDES general permits.
- The NPDES permit administrative records either do not clearly document, or provide little documentation regarding ambient and effluent data, or data from similar mines, used to assess water quality impacts and reasonable potential analysis.
- State permitting authorities generally do not assess whether actual or proposed discharges from surface mining operations have a reasonable potential to cause or contribute to excursions of narrative water quality standards.
- The states vary in the degree to which they have sufficient documentation to support reasonable potential determinations and water quality-based effluent limit development for numeric criteria.
- No documentation was found to indicate that States request data beyond that required in the permit application form to support a reasonable potential analysis, establish effluent

limits or require effluent monitoring for whole effluent toxicity for surface mining discharges.

- Communication is challenging among the different agencies and offices responsible for surface coal mine permitting under CWA §402, §404 and SMCRA.
- Several States provide limited staff and resources for NPDES permitting of surface coal mines relative to the number and significance of these types of discharges.

EPA Headquarters encourages EPA Regional efforts to continue working proactively with authorized States to improve the quality of State-issued NPDES permits for surface coal mining. In that regard, we offer specific recommendations:

- Regions should request information (e.g. specific policies and procedures) from each State as to how that State is applying applicable numeric and narrative water quality standards within its permitting decisions.
- Regions should review, as appropriate, general permits, notices of intent, and individual permits, and provide comments on eligibility, water quality-based effluent limitations, and in particular, antidegradation.
- Regions should evaluate whether required and appropriate data are submitted with permit applications, and encourage permitting authorities to consider permit applications incomplete if the data characterization is not sufficient. Permitting authorities should consider data from similarly situated mines in their reasonable potential analyses for new facilities.
- Regions should consider objecting to permits that do not assess reasonable potential effectively, or fail to implement numeric and narrative standards.
- Regions should work with States to improve documentation in the administrative records for each permit to include site- or receiving water-specific information, reasonable potential determinations and bases for any limits or other permit requirements, including how the permit implements narrative water quality standards in a manner consistent with the CWA.
- EPA Regions and their States should examine opportunities to continue to more fully integrate NPDES, SMCRA, and §404 coal mine permitting processes (i.e., water quality characterization, data collection, review and assessment, permit condition development, monitoring and enforcement).
- States should ensure that sufficient staff is provided to identify and characterize any mine-related water quality impacts.
- Regions should foster additional dialogue on information and tools EPA could provide to the States to translate their narrative criteria into numeric effluent limits.

When reviewing State-issued permits, we strongly encourage you to ensure that the items discussed above are addressed in a manner consistent with the CWA and EPA's implementing regulations. In instances in which the Region concludes that a proposed permit is not consistent with the CWA, the Regions should work closely with States to make improvements. Historically, Regions have used several tools to try and resolve concerns regarding the sufficiency of State NPDES permits, ranging from comment letters to face-to-face meetings, and we encourage Regions to continue to utilize those tools. If, however, discussions with the State do not produce a proposed permit that satisfies the requirements of the Act, an objection to the issuance of the proposed permit would be an appropriate response. EPA will evaluate whether reviewed NPDES permits comply with the CWA and its implementing regulations. CWA §402 and EPA's regulations provide EPA Regional offices with the

discretion to object to permits that fail to comply with such CWA requirements. In response, the State or other interested parties may request a hearing and provide additional information supporting their position. If a hearing is requested, then after the hearing EPA has discretion to reassert its objection, modify its objection, or withdraw its objection. If EPA continues to object (or if no hearing was requested) and if EPA's objections are not satisfactorily resolved by the State permitting authority, authority to issue the permit will pass to EPA.

The Regions provided a draft of this report to the States in April 2010. EPA received comments from three States (Kentucky, Ohio, West Virginia), and has revised the report where appropriate.

Regions should share this report with their States, and if any error or updates are appropriate, we will amend this report. Regions should also provide action items and schedules agreed to by the States to correct significant deficiencies.

I. Summary of EPA Responsibilities Pursuant to the Appalachian Surface Coal Mining Memorandum of Understanding

The CWA entrusts EPA with overall responsibility to administer its provisions, including protection of human health, water quality, and the environment in coalfield communities throughout Appalachia. This responsibility also includes preserving the long-term integrity of Appalachian watersheds, which is important in protecting their ecological condition and maintaining safe, clean, and abundant water for local communities. Under the *Memorandum of Understanding Among the U.S. Department of the Army, the U.S. Department of the Interior, and the U.S. Environmental Protection Agency Implementing the Interagency Action Plan on Appalachian Surface Coal Mining* (June 11, 2009) (hereafter referred to as the Action Plan), EPA is responsible for completing specific short-term actions intended to help address the harmful environmental consequences of Appalachian coal mining operations and to ensure that future mining remains consistent with federal law. One of the short term actions under the Action Plan to be completed by the end of 2009 addresses permits issued under §402 of the Clean Water Act (i.e., NPDES permits). Specifically, the Action Plan provides that:

> "…EPA will improve and strengthen oversight and review of water pollution permits for discharges from valley fills under CWA §402, and of State water quality certifications under CWA §401, by taking appropriate steps to assist the States to strengthen State regulation, enforcement, and permitting of surface mining operations under these programs…"

The Action Plan also specifies longer term actions that EPA, as a signatory agency, will complete. The Action Plan provides that, "[t]he signatory agencies will review their existing regulatory authorities and procedures to determine whether regulatory modifications should be proposed to better protect the environment and public health from the impacts of Appalachian surface coal mining. At a minimum, the agencies will consider:

> "Revisions to how surface coal mining activities are evaluated, authorized, and regulated under the CWA."

This report presents EPA's initial findings for the short term action to review, improve, and strengthen CWA §402 permitting of surface coal mines in Appalachia, and documents EPA's NPDES permit quality review (PQR) for §402 permitting of surface coal mines. NPDES program and permit reviews are generally routinely conducted in the NPDES program, with improvements that are required and tracked. The MOU established an enhanced coordination procedure for 79 pending Appalachian surface coal mine projects currently being reviewed by EPA and the Army Corps of Engineers for mining operations in Kentucky, Ohio, Tennessee and West Virginia; these States were selected for the initial phase of the PQR as well. Since findings were similar in many of these States, EPA will assess if additional reviews are necessary.

Subsequent sections of this report describe actions undertaken by EPA to review §402 permitting of surface coal mines in Kentucky, Ohio, Tennessee, and West Virginia; present an overview of respective State coal mine NPDES permit programs; describe findings; and, provide recommendations to improve permit program effectiveness. Appendix A presents an overview of preliminary findings of the PQR in the four States. Appendix B provides a summary of numeric water quality criteria for the four States, Appendix C features the mining PQR checklist

used to assess, and Appendix D includes a brief-format summary for each NPDES permit reviewed by EPA.

II. Overview of EPA Process to Address §402 Permits

The Office of Water worked closely with EPA Regions 3, 4, and 5 to assess the quality of State-issued CWA §402 (NPDES) permits for surface coal mining operations with respect to permitting requirements in the Appalachian States of Tennessee, Ohio, Kentucky and West Virginia. EPA also assessed permits for their compliance with applicable federal requirements. The goal of this assessment is to strengthen State-issued NPDES permits to better address the impacts of surface coal mining.

EPA undertook a permit quality review (PQR) process for NPDES permits associated with 79 pending Appalachian surface coal mine projects currently being reviewed by EPA and the U.S. Army Corps of Engineers under enhanced coordination procedures. The NPDES permits associated with this process were identified through extensive discussions with EPA Regions, using State data systems to verify that the correct facilities were identified. The PQR process also involved researching program materials and conducting site visits and interviews with §402 coal mine permitting personnel in Kentucky, Ohio, Tennessee, and West Virginia. EPA also reviewed available applications (or notices of intent), statements of basis (or fact sheets) and NPDES permits associated with the 79 pending Appalachian surface coal mine projects in each of these States.[1]

Each site visit was conducted by a team comprised of EPA headquarters, EPA Regional, and contractor personnel. The on-site visits were critical in increasing EPA's understanding of §402 permit development and implementation for surface coal mines. EPA reviewed and discussed with State permitting staff select §402 surface coal mine permits and files containing each permits administrative record to assess overall quality and consistency with applicable core NPDES program requirements. Prior to conducting the site visits, EPA researched the structure of the States' respective surface mining permitting programs, as well as applicable water quality standards, and shared NPDES permit lists with the States.. The review team then met with State NPDES permitting personnel and discussed the program scope and process, including the permitting workflow from the application receipt and review, through the permit drafting process and the administrative procedure steps. The site visits were conducted on the following dates: Tennessee – September 10-11, 2009; West Virginia - September 22-23, 2009; Kentucky – September 24-25, 2009; Ohio – October 8, 2009.

EPA's evaluation involved focused permit reviews, based on the available permit files and statements of basis (or fact sheets) of §402 surface coal mining permits issued by these States and subject to enhanced coordination between EPA and the U.S Army Corps of Engineers. The review team also interviewed permit writers and reviewed other permits and supporting documentation to assess their consistency with NPDES program requirements. The review focused on permit quality and included a review of the permit application, limits, monitoring requirements, special conditions, standard conditions, correspondence, documentation, and administrative process, as well as other factors. The scope of this review and evaluation is limited to permits and did not include an enforcement program review. As such, there are no

[1] EPA reviewed available permit files for NPDES permits associated with the 79 pending surface mining projects, where permits had been issued by the State. With §404 actions pending, some permits (and permit coverages) for the actions had not yet been developed or issued, and could not be reviewed during the PQR. For activities covered under NPDES general permits, EPA reviewed whatever file information was available and provided by the state during the site visit. A list of permits reviewed by EPA is presented in Appendix D.

enforcement conclusions, and this report does not evaluate or endorse any existing enforcement practice.

EPA developed a checklist to facilitate the interviews with State personnel and to promote consistency during the permit reviews of surface coal mine permits (Appendix C). The review team assessed and developed short-form summaries of each available permit on the enhanced coordination list; summaries are included in Appendix D. Specific findings of the reviews are reflected in this report and serve as the basis for recommendations included herein.

As noted above, the PQR focused on the NPDES permit development and issuance processes in Kentucky, Ohio, Tennessee and West Virginia. The PQR did not collect detailed information on other aspects of State water quality program implementation such as water quality standards development, water quality monitoring and assessment, or compliance monitoring and enforcement.

III. Findings of the Permit Quality Review

The information presented provides findings and recommendations of the permit quality review (PQR). The information was collected during the site visits, interviews, and review of the supporting materials discussed above. Appendix A provides an overview of the four Appalachian State programs and Appendix D captures more detailed findings for each permit reviewed. The overall findings address State-specific findings, as well as basic NPDES permit components, and address certain aspects of permit administration.

The preliminary recommendations are based on the site visits and PQR findings of this report.[2] Should Regions identify similar concerns when reviewing draft or proposed permits in the future, they are encouraged to work with their authorized States to resolve the Region's concerns. As noted below, however, where discussions with the State do not produce a proposed permit that satisfies the requirements of the Act, an objection to the issuance of the proposed permit would be an appropriate response. The Water Division Directors of the three Regions are encouraged to work together to ensure a comparable level of review and response across Appalachia.

A. Overview of State Surface Coal Mine NPDES Permit Programs

Surface coal mines typically require a permit issued under the Surface Mining Control and Reclamation Act (SMCRA), as well as two distinct permits issued under the CWA: a §404 permit for the discharge of dredged or fill material, and a §402 permit for wastewater discharge.[3] Kentucky, Ohio, and West Virginia are authorized to issue SMCRA permits, which require that surface coal mining operations meet specified environmental protection performance standards. These standards require minimizing the disturbances to the prevailing hydrologic balance at the mine-site, in associated offsite areas, and to the quality and quantity of water in surface and ground water systems both during and after surface coal mining operations and during reclamation. In Tennessee, SMCRA permits are issued by the federal Office of Surface Mining Reclamation and Enforcement (OSM), which coordinates with NPDES personnel.

Surface coal mines also require a CWA §402, or NPDES, permit if they discharge pollutants from a point source to waters of the U.S. via a point source. NPDES permits for coal mines are issued by each respective State's environmental agency or department. Kentucky, Ohio, and Tennessee each have not classified surface coal mines as "major" NPDES facilities. West Virginia has one coal mine that has been designated a major facility; all others are non-major facilities. Permits for non-major industrial facilities generally cover less environmentally significant activities, and therefore require less EPA review and require less documentation in the administrative record than permits for major facilities. EPA is currently assessing whether and how States and EPA Regions are using the existing "major" facility criteria to identify the more environmentally significant coal mining operations, and whether additional criteria or guidance might be appropriate.
In addition, surface coal mining activities that discharge dredged or fill material in waters of the U.S. (e.g., place overburden in a stream) will require a CWA §404 permit, which is issued by the

[2] EPA acknowledges that the Agency has received petitions to withdraw the West Virginia and Kentucky NPDES programs. This review did not specifically assess the specific assertions in the petitions. Therefore, the preliminary recommendations and conclusions reached here are not directly applicable to assertions raised in such petitions.
[3] Multiple permits or permit coverages may be issued under each of the permitting programs to authorize various activities at a single mining operation. Because the permits cover different aspects of the mining operation, there is frequently not a one-to-one correspondence among the §402, §404 and SMCRA permits.

U.S. Army Corps of Engineers (USACE).[4] Federally-issued SMCRA permits and §404 permits issued by the USACE require certification under CWA §401.

1. Kentucky

KPDES permits are issued by the Kentucky Department of Environmental Protection (KYDEP), Division of Water (KYDOW), Surface Water Permit Branch. KYDEP issues KPDES permits for approximately 2,133 coal mines in the State, approximately 100 of which are covered under individual KPDES permits. The remaining 2,033 facilities are subject to a KPDES general permit for coal mines (KYG040000; effective Aug. 1, 2009).[5] KYDEP currently provides approximately one full-time equivalent (FTE) to administer the KPDES program for the coal mining sector. EPA reviewed materials for 48 proposed facilities in Kentucky.

The KPDES general permit for coal mine operations covers all forms of mining and coal preparation plants, with the following exceptions (for which an individual permit is required):

- new or expanded operations proposing to discharge directly into a water body classified as a Cold Water Aquatic Habitat or and Outstanding State Resource Water
- new or expanded operations proposing to discharge directly into or to a direct first or second order tributary of a publicly-owned lake or reservoir
- new or expanded operations proposing to discharge directly into a water body that has been categorized as an Outstanding National Resource Water or as an Exceptional Water
- new or expanded operations involving the dredging of coal from waters of the Commonwealth
- new or expanded operations involving the wet beneficiation (washing) of coal
- new or expanded operation involving the disposal of coal slurry into waters of the Commonwealth or underground injection
- any operations using or proposing to use Anhydrous Ammonia as a treatment option
- new or expanded operations within five miles upstream of an existing drinking water intake
- any operation discharging directly to a water of the Commonwealth that has been listed, in the most recently developed CWA §305 (b) report or §303(d) list, as impaired for one or more of the pollutants commonly associated with coal mining including sedimentation, total suspended solids (TSS), total dissolved solids (TDS), conductivity, iron, manganese and metals
- any operation that meets the definition of a coal remining operation found in 40 CFR 434 ("a coal mining operation at a site on which coal mining was previously conducted and where the site has been abandoned or the performance bond has been forfeited.
- any operation proposing to dispose of solid or special wastes within the mining area

[4] CWA §404 authorizes the Corps of Engineers to issue general permits on a nationwide, regional or state basis. General permits promulgated by Corps Headquarters, after public notice and comment, for nationwide application are called nationwide permits. General permits must be re-authorized every five years. In addition to general permits, standard (individual) permits are issued by Corps Districts, pursuant to CWA §404, to authorize activities that, because of the nature of the activity or potential environmental impacts, do not qualify for coverage under a general permit.

[5] Forty-four (44) of the facilities subject to the coal mine NPDES general permit are on the enhanced coordination permit list.

- any operation classified as an alkaline mine (a mine with drainage which, before treatment, has a pH equal to or greater than 6.0 SU and total iron concentration less than 10 mg/l.)
- any operation which the KYDOW determines that an individual permit would better address the discharges from that operation
- coal mining operations which have not been permitted under KRS Chapter 350.

The Kentucky surface coal mine general permit Notice of Intent (NOI-CM) to obtain coverage under the general permit requests typical general permit application information,[6] but also requests some specific effluent data (at least one sample analysis of effluent from an outfall in each affected watershed for 24 parameters, e.g., metals, selenium, cyanide, and total phenols). If there are no existing discharges, a permittee can use data from an adjacent existing activity that is substantially identical, and where no such activity is occurring, the permittee has up to two years following issuance of permit coverage to submit the data. Applicants seeking coverage under the permit for new or expanded discharges to "High Quality" waters must submit an NOI and a Socioeconomic Demonstration and Alternatives Analysis (SDAA) and undergo a public participation process.

The general permit establishes eight sets of effluent limitations applicable to acid or ferruginous mine drainage from coal preparation plants and associated areas, active mining areas, and post mining areas for existing and new wastewater discharge sources. These are based on, and are consistent with, the effluent limitation guidelines (ELGs) at 40 CFR Part 434 for applicable discharges.

The general permit establishes an acute limit for total recoverable iron of 4.0 mg/l, in accordance with 401 KAR 10:031, Section 6, but does not include other water quality-based numeric limits. The general permit provides that existing coal mines must conduct and submit to KYDOW a one-time analysis for parameters[7] from a representative outfall in each affected watershed. Neither the permit nor fact sheet indicates how these data will be evaluated or used; in addition, these data sets were not observed in the permit files during the site visit.

Discussions with KYDEP staff indicate that, for precipitation related discharges, one effluent sample is initially screened and compared with the acute water quality criterion. Consistent with KYDEP implementation procedures, if the contaminant level exceeds 70% of the acute water quality criterion in fewer than five samples, additional data are required; and, if subsequent results are consistent, a limit is required. Facilities subject to the coal mine general permit would then be required to obtain an individual KPDES permit. Records documenting the data analysis described by KYDEP staff were not found during the site visit review of select NOIs. Neither the individual permits nor the general permit contain requirements for whole effluent toxicity (WET) testing, as required by 40 CFR 122.44(d)(1)(ii) and (iii).

As noted above, Kentucky's coal mine general permit is not available to any operation discharging directly to a water of the Commonwealth that has been listed, in the most recently

[6] This includes: permittee information, general site information, specific site information, Corps of Engineers CWA §404 permit information, other environmental approvals, effluent characteristics, BMP plans, certification, and NOI preparer information.

[7] Total Recoverable (Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium and Zinc), Free Cyanide, Total Phenols, and Hardness (as mg/l $CaCO_3$).

developed §305 (b) report or §303(d) list, as impaired for one or more of the pollutants commonly associated with coal mining including sedimentation, total suspended solids, total dissolved solids, conductivity, iron, manganese and metals. KYDEP also has developed ArcMap total maximum daily load (TMDL) data layers to support permit staff in determining whether a facility seeking coverage under the general permit is potentially affected by a TMDL.

The general permit requires twice monthly monitoring for parameters for which effluent limits exist. Permittees are also required to monitor for flow and conductivity. Kentucky water quality standards at 401 KAR 10:031 establish narrative water quality criteria for conductivity (as well as TDS, TSS, and toxicity); neither the general permit nor fact sheet discuss how the monitoring data collected for conductivity will be evaluated against the narrative water quality criteria. The general permit also provides that within the term of the permit, each mining operation authorized by the general permit must conduct and submit to KYDOW a one-time benthic macroinvertebrate assessment (the method is dependent on the receiving stream) immediately downstream of an outfall in each HUC 14 impacted by the mining operation. The results of these assessments were not observed in the files during the site visit, and it is unclear how this data will be used in the permitting process.

The Kentucky Department of Natural Resources (KYDNR), Division of Mine Permits (DMP) staff conducts inspections of coal mines (including NPDES compliance). An MOU between KYDEP and KYDNR was revised on March 8, 2007 and addresses the respective compliance and enforcement responsibilities of each department.[8]

2. Ohio

NPDES permits for surface coal mines in Ohio are issued by the Ohio EPA, Division of Surface Water (DSW). The Ohio EPA DSW issues NPDES permits for approximately 250 coal mines in the State. Approximately 50 of these facilities are covered under individual NPDES permits issued by the Ohio EPA District offices (mostly underground coal mines and coal washing facilities). The remaining 200 facilities are subject to a general permit[9] for coal mines (OHM000003; effective March 1, 2009), which addresses coal mine wastewater and stormwater discharges. The OHIO EPA DSW currently provides approximately one employee to administer the NPDES program for the coal mining sector. EPA reviewed material for three proposed mining facilities in Ohio.

The Ohio coal mine general permit NOI requests typical applicant information. The NOI does not require the submittal of water quality data.

The effluent limitations in the new coal mine general permit appear to be consistent with the ELGs at 40 CFR Part 434 for applicable discharges. Individual NPDES coal mine permits for underground coal mines and coal washing facilities in Ohio also implement the ELG.

The coal mine general permit also includes numeric water quality-based effluent limitations for pH. The general permit does, however, include requirements that coal mines must meet "General Effluent Limitations" specified in the permit, including six narrative conditions, such as

[8] 2006 Commonwealth of Kentucky Department for Environmental Protection State Review Framework Report. http://www.epa.gov/compliance/resources/reports/srf/srf-rd1-rev-ky.pdf

[9] The fact sheet was not available for review; therefore, an evaluation of the fact sheet is not included in this PQR.

the requirement that discharges be free of substances that are toxic to aquatic life, and free of substances that impair instream or downstream designated uses. There is no discussion in the general permit of how Ohio EPA DSW will determine compliance with these general effluent limitations or that the permit is expected to achieve protection of narrative conditions. The general permit does not contain requirements for WET testing. Ohio has narrative criteria for toxicity and TSS, and has established biological water quality criteria (3745-1-04; 3745-1-07).

Ohio's coal mine general permit does not specifically address impaired waters or waters subject to TMDLs, although the general permit indicates that it does not cover discharges that cause or contribute to a violation of water quality standards. Permit writers have access to TMDL information and these data are being integrated into Ohio's data system. Some final TMDLs exist, and several TMDLs are scheduled to be completed in the future. For individual permits, final TMDLs are implemented upon permit reissuance.

The coal mine general permit requires monitoring for all parameters for which there are effluent limits, as well as for flow, specific conductance (i.e. conductivity), and total precipitation. This monitoring is conducted for both new facilities and permit renewals. While EPA's review of supporting materials did not find documentation of the evaluation of conductance monitoring data, Ohio EPA indicated that monitoring data is evaluated to ensure that narrative water quality criteria (e.g., toxicity, biological criteria) are implemented.

Individual coal mine permits were not reviewed as part of this PQR, however, based on discussions with Ohio EPA staff, permit writers consider data and trends identified in EPA NPDES Application Form 2C (Wastewater Discharge Information - Existing Manufacturing, Commercial, Mining, And Silvicultural Operations) and, if reasonable potential exists (based on DSW's spreadsheet program/tool), then additional limits or monitoring requirements are added consistent with State policy.

Ohio EPA relies on DNR to monitor and enforce the NPDES general permit. Ohio EPA is responsible for the enforcement of individual permits.

3. Tennessee

The Tennessee Department of Environment and Conservation (TNDEC), Division of Water Pollution Control (DWPC), Surface Mining Section (SMS), issues NPDES permits for surface coal mines in Tennessee. Tennessee issues NPDES permits to a relatively small number of surface coal mines;[10] there are approximately 25 active coal mines with NPDES permits, and approximately 100 additional coal mines with NPDES permits but are not actively mining (these facilities continue to discharge pollutants). Tennessee issues only individual NPDES permits to surface coal mines. TNDEC currently provides approximately 2.5 full-time equivalents (FTE) to administer NPDES permits for the coal mining sector. EPA reviewed materials for 7 proposed mining facilities in Tennessee, one of which was part of the enhanced coordination process. The

[10] Tennessee DEC asserts that it does not allow the creation of valley fills. Based on discussion with DEC staff, the state has legislation in place and long standing policy that the state does not allow the filling of streams with overburden from mining operations. DEC uses OSM buffer criteria (100 feet) as a guide. This approach is based on environmental concerns and state geology. DEC believes that §404 was not intended to be used to authorize valley fills.

permits reviewed that were not part of the enhanced coordination included limits consistent with 40 CFR 434, Subpart C.

Tennessee uses EPA NPDES permit application Form 1 (General Information), Form 2C (Wastewater Discharge Information - Existing Manufacturing, Commercial, Mining, And Silvicultural Operations), and Form 2D (New Sources and New Dischargers: Application for Permit to Discharge Process Wastewater) for surface coal mine permits. The effluent limitations in permits appear to be consistent with the ELGs at 40 CFR Part 434 for applicable discharges.

With regard to water quality-based effluent limits, the review did not find reasonable potential analysis (for numeric or narrative criteria) in the administrative records for permits reviewed. For new facilities, permits require the owner/operator to sample and analyze pollutants specified in (Item V) Form 2C and submit results to TNDEC, which reviews data and modifies the permit if necessary to protect designated uses. This approach is consistent with the approach described by TNDEC staff during the site visit. TNDEC staff indicated that water quality-based effluent limits are generally developed using EPA procedures. Often for coal mine permits the receiving water has zero as its low flow, which allows SMS to directly compare the effluent pollutant levels with State water quality standards. For these permits, the SMS staff assumes half of the water quality standard for background in its reasonable potential analysis when site-specific data are not available.

Tennessee has narrative water quality standards for TSS, toxicity, iron, and biological integrity (1200-4-3-.03). Tennessee water quality standards provide that the "[i]nterpretation and application of narrative criteria shall be based on available scientific literature and EPA guidance and regulations" (1200-4-3-.02(10)). However, State does not appear to provide an explicit procedure for translating these narrative criteria into numeric values, and the permits reviewed did not contain WET requirements.

Approved TMDLs in Tennessee are posted on the TNDEC website and are available for review by permitting staff. For draft TMDLs, the staff coordinates with TNDEC personnel in Nashville to remain informed. Tennessee uses a watershed cycle approach for TMDL development and for non-coal mine NPDES permitting. TNDEC indicated that this approach is not feasible for coal mine permitting due to the need to coordinate NPDES permitting with SMCRA permitting, and because of the high concentration of coal mines in a relatively small number of watersheds.

OSM, which is the primary regulatory authority for coal mines, implements and enforces NPDES permit requirements in the field. OSM conducts inspections, reviews discharge monitoring reports (DMRs), develops Notices of Violations (NOVs), and performs some monitoring. In addition, TNDEC staff also perform inspections (at times in conjunction with OSM), reviews DMRs, develop NOVs, and conduct enforcement. TNDEC leads any enforcement action that is based on an NPDES violation.

4. West Virginia

NPDES permits and SMCRA permits are administered by the West Virginia Department of Environmental Protection (WVDEP), Division of Mining and Reclamation (DMR). The DMR has three regional offices and one central office in the State, and administers approximately 1,356 NPDES permits for coal mines. The State has approximately 1,800 SMCRA coal mine permits (one NPDES permit may have more than one associated SMCRA permit). The majority

of surface coal mining NPDES permits in West Virginia are individual permits. The DMR currently supports approximately 18 full-time equivalent (FTE) positions to administer the NPDES program for the coal mining sector, and is currently in the process of filling three vacancies. West Virginia has a multi-module DMR permit application form for NPDES mining permits that are designated MR-5. Required monitoring information includes effluent data (conventional, non-conventional, metals, cyanide and total phenols, sulfate, total aluminum, iron and manganese, and others if present), as well as a benthic survey and biological toxicity testing data, if completed in the three years prior to application.

Surface coal mine NPDES permits in West Virginia are individual permits. EPA reviewed permits, rationales and supporting documentation provided by WVDEP for fourteen individual permits during the PQR site visit.[11] WVDEP has asserted that EPA did not review the correct and complete documentation for permits associated with the enhanced coordination process at the time of the site visit. In response to this, EPA also conducted a review of additional materials provided by WVDEP in May 2010 and has made revisions as needed in this report.

Of the materials provided to EPA for review, permit files for four facilities did not include fact sheets or "rationales;"while ten included rationales. The rationales provided to EPA for review were brief, one to two pages in length, and typically include facility-specific information that documents that a site-specific evaluation was conducted, and provides facility name and location information, receiving stream use (using state codes), a list of "parameters of concern" (yes/no indication on an established list of pollutants: pH, total and dissolved aluminum, iron, manganese, and others), a "Justification Review" paragraph, types of effluent limitations (under which outfalls are listed as technology-based, water-quality-based, best professional judgment, etc.), special conditions or other monitoring requirements (using state codes), and whether the application contains valleyfills/refuse, ephemeral streams, or intermittent/ perennial streams. Although very brief, these rationales provide a basic level of facility-specific information regarding each permit.

West Virginia included coal mining point source ELG requirements in surface coal mining permits reviewed. In some cases more stringent water quality-based requirements are imposed for relevant parameters based on numeric criteria. West Virginia NPDES permits incorporate by reference State regulations (47 CSR 30) that address NPDES standard permit conditions. Under the "duty to comply" the State regulations specify that discharges must not cause a violation of applicable water quality standards adopted by WVDEP in 47 CSR 2 (47-30-5(1)(f)). These State water quality standards include numeric and narrative criteria. However, no permits reviewed translated narrative criteria into effluent limits.

During the site visit, WVDEP staff indicated that, for new facilities, at least six months of ambient monitoring is required to establish baseline water quality. For renewals, effluent monitoring data are submitted pursuant to the permit application form requirements. WVDEP staff indicated that benthic data are typically provided as part of the permit application (on the permit application form such data are required if they were developed within 3 years of application for a permit), however, it is not known how such data are used.

[11] Twenty-three West Virginia NPDES coal mine permits are on the enhanced coordination permit list; 14 of these were identified as issued, the others were identified as pending.

In West Virginia, wasteload allocations are included in TMDL documents, and prepared using an analysis of monitoring data collected over a four year period, watershed modeling and calculations, in accordance with established water quality standards. The TMDLs prescribe that new discharges to impaired waters must meet criteria-at-end-of-pipe requirements for pollutants of concern. Permits are issued on a watershed-basis aligned with the TMDL development process. Final TMDLs are typically implemented upon NPDES permit reissuance. WVDEP uses its Baseline Water Quality Workbook (BWQ) to develop permit limits for coal mines. BWQ parameters include flow, pH, iron, manganese, total aluminum, dissolved aluminum, and selenium (the BWQ can consider additional parameters if they are specified by the permit writer). Based on the interview, if data indicate that pollutant levels are above the applicable water quality criteria, a limit is included in the permit. For Tier II waters (all new permits), limits are based on the use of no more than 10% of assimilative capacity (per antidegradation policy, i.e., beyond 10% is significant degradation). For the 14 permits reviewed, 6 of the 14 included limits for all the standard BWQ parameters, and 8 included limits for all of the standard BWQ parameters except selenium (none of the 14 permits included limits for more than BWQ parameters). Only 3 of the 14 permits included documentation that indicated that reasonable potential was evaluated for BWQ parameters plus chlorides and zinc (no limits were deemed necessary for chlorides or zinc). Given the limited documentation available for review, it was difficult to assess the extent to which other parameters, including narrative water quality criteria, are evaluated. West Virginia has narrative criteria for toxicity (§47-2-3).

The same inspectors implement SMCRA and NPDES permits (e.g., there are 35 inspectors in the Logan office). NPDES violations can be enforced under NPDES or SMCRA (SMCRA permits require compliance with NPDES effluent limitations).

B. General Findings and Preliminary Recommendations

The following findings and preliminary recommendations are based on the site visits of the permit quality review.[12] Should Regions identify similar concerns when reviewing draft or proposed permits in the future, they are encouraged to work with their authorized States to resolve the Region's concerns. As noted below, however, where discussions with the State do not produce a proposed permit that satisfies the requirements of the Act, an objection to the issuance of the proposed permit would be an appropriate response. The Water Division Directors of the three Regions, in cooperation with EPA Headquarters, are encouraged to work together to ensure a comparable level of review and response across Appalachia.

Under the CWA, EPA's implementing regulations require NPDES permits to contain technology-based effluent limits and, where necessary to protect water quality, water quality-based effluent limits. All permits reviewed by EPA included appropriate technology-based limits for pollutant parameters listed in the effluent limitation guidelines for coal mining (40 CFR Part 434). However, EPA has identified certain preliminary concerns common to the vast majority of permits reviewed that warrant immediate attention to ensure that water quality is protected. These findings are based on observations from both ongoing program oversight and a focused Permit Quality Review (PQR) of permits for surface coal mining activities, including detailed discussions with State permit writers. As a result, when Regional offices exercise their

[12] EPA acknowledges that the Agency has received petitions to withdraw the West Virginia and Kentucky NPDES programs. This review did not specifically assess the specific assertions in the petitions. Therefore, the preliminary recommendations and conclusions reached here are not directly applicable to assertions raised in such petitions.

authority to review draft or proposed State NPDES permits, Regions should evaluate several aspects of those permits as detailed below.

Some discharges at surface coal mining sites are authorized through State-issued general NPDES permits. However, the use of general permits may not be appropriate for all mining facilities within a specific State. It should be noted that although NPDES general permits offer certain administrative advantages, such permits may not be as effective as individual permits for surface coal mining in their ability to ensure the protection of water quality because general permits may not adequately consider or address site-specific effluent and receiving water conditions on a case-by-case basis. In such instances, individual permit coverage would be appropriate.

1. Ambient and Effluent Data

To determine whether a discharge may cause or have reasonable potential to cause or contribute to an excursion of a numeric or narrative water quality standard, permitting authorities generally gather as much data as practicable to characterize the nature of the effluent and the receiving water. Permitting authorities generally rely on permit application data to characterize the nature of the effluent, and the quality of the receiving water is determined by searching state and federal data systems to identify any relevant monitoring data.

To characterize the effluent, existing dischargers applying or reapplying for NPDES permit coverage are required to provide the permitting authority with screening data for a suite of pollutants and pollutant parameters listed in the applicable NPDES permit application form. However, for new (proposed) discharges, the application form for an individual permit requires an estimate of the effluent characteristics. In addition to data specifically required by permit applications, 40 CFR Section 122.21 allows permitting authorities to request any additional data as necessary to support an assessment of potential water quality impacts (e.g., conductivity and total dissolved solids). Facilities applying for coverage under an NPDES general permit are required to submit information specifically identified in the Notice of Intent (NOI) provisions of the general permit.

Ambient and Effluent Data Findings

For surface mining operations, the PQR determined that significant amounts of ambient water quality data were generated by the proposed mining operations as part of the application process for both the §404 and SMCRA permits. For example, the Baseline Water Quality (BWQ) monitoring conducted prior to mining operations provides significant quantitative chemical characteristics and biological assessments for the waters downstream of the proposed mining activities.

EPA's review of permits and associated records found that States generally did not adequately document or explain how information submitted by applicants was used to characterize the nature of their actual or proposed discharges. In particular, where facilities had proposed to discharge, but had not yet begun construction or operation, the files contained little discussion of how the permitting authority projected or anticipated the types and concentrations of pollutants expected in the effluent, such as consideration of data from similarly situated mines in reasonable potential analyses for new facilities, as noted in Chapter 3.2 of EPA's 1991 Technical Support Document (TSD) for Water Quality-based Toxics Control (EPA/505/2-90-001 PB91-127415).

In general, there was little documentation or evidence that permitting authorities were coordinating the data collection during the concurrent §402, §404, and SMCRA permitting efforts to ensure that the baseline data supported decisions made across all programs. Further, where discharges had not commenced, there was no indication that applicants were submitting existing data gathered as part of §404 or SMCRA permit applications, or that permitting authorities used effluent characteristics from similar/adjacent mining operations in conjunction with ambient data to determine whether the proposed discharge would cause or have a reasonable potential to cause or contribute to an excursion above a narrative or numeric water quality standards. In West Virginia, however, there is some coordination between the §402, 404 and SMCRA permitting processes. Data from receiving streams, adjacent operations, §303(d) lists and TMDLs are shared and documented, and limits derived when applicable.

Ambient and Effluent Data Recommendations

Where effluent data are available (e.g., for existing discharges), EPA's expectation is that permitting authorities must use all valid and representative data to determine whether the discharge causes, has the reasonable potential to cause, or contributes to an excursion of any numeric and narrative water quality criteria and standards. For new (proposed) discharges, the permitting authority should require the applicant to characterize anticipated pollutant concentrations and loads using data from similar discharges and/or based on characteristics of local soils and geology. These data may be from mining facilities located adjacent to, having similar geologic characteristics, or from ambient data collected as part of the §404 or SMCRA permit applications. Permitting authorities should independently use these data if not submitted by the applicant or can reject the application as not sufficient. Ambient water quality data collected as part of the SMCRA and §404 permitting processes should be included in the NPDES permit development process and, where appropriate, should be incorporated as "background" conditions in reasonable potential analyses.

It is the responsibility of the applicant to characterize wastewater proposed to be discharged from the permitted facility. In order to have a complete NPDES permit application, the applicant must provide data that properly characterizes its discharge, to enable a permit writer to complete a reasonable potential analysis at the time of permit issuance. Data may be secured through evaluation of similarly situated facilities in adjacent watersheds or similar practices in the same ecological or geological setting.

Since valley fills, impoundments and sediment ponds would be constructed before the data would be submitted, and data is most likely available to characterize these discharges, EPA strongly recommends that the permitting authority determine that a permit application that lacks effluent data that properly characterizes the discharge is incomplete. See 40 CFR 122.21(e) (a permit application is determined to be complete at the discretion of the permitting authority) and 40 CFR 122.21(g)(13) (the applicant shall provide to the Director, upon request, such other information as the Director may reasonably require to assess the discharge). Such data would allow the permitting authority to characterize the effluent to determine whether the discharge causes, has the reasonable potential to cause, or contributes to an excursion of applicable state water quality standards and would consequently allow the permitting authority to determine whether a water quality-based effluent limit is necessary in the permit.

2. Limit Development, Reasonable Potential & Antidegradation Analyses

Regulations at 40 CFR 122.44(d)(1)(i) require that effluent limitations must be established to control all pollutants or pollutant parameters that are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any narrative or numeric water quality standard.

The CWA and EPA's implementing regulations require NPDES permits to contain technology-based effluent limits and, where necessary to protect water quality, water quality-based effluent limits. EPA has reason to believe that discharges from surface coal mining activities have a significant potential to cause nonattainment of applicable narrative water quality standards downstream of valley fills, impoundments and sediment ponds. Discharges from Appalachian coal mines have been found to have a high potential to impact aquatic life uses.[13,14] Numerous studies, data submitted to permitting authorities for proposed mining activities, and some State §303(d) lists have shown high levels of conductivity and total dissolved solids and sulfates to be a primary cause of water quality impairments downstream of such mine discharges.

Based on observations from both ongoing program oversight and a focused Permit Quality Review of permits for surface coal mining activities, including detailed discussions with State permit writers, EPA identified certain preliminary concerns common to the vast majority of permits reviewed that warrant immediate attention to ensure that water quality is protected.

Limit Development, Reasonable Potential & Antidegradation Analyses Findings

a. Application of Narrative Criteria

The majority of Appalachian States do not currently have applicable numeric water quality criteria that account for the effects associated with high levels of conductivity, total dissolved solids and sulfates. In lieu of such numeric criteria, these States all have applicable narrative water quality criteria, such as the following from Kentucky's standards: "Surface waters shall not be aesthetically or otherwise degraded by substances that … (d) Injure, are chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish and other aquatic life". Furthermore, Kentucky's water quality standards include the following: "(f) …Total dissolved solids or specific conductance shall not be changed to the extent that the indigenous aquatic community is adversely affected."[15] However, in addition to the applicable narrative standards, Ohio also has a chronic criteria for total dissolved solids (1500 mg/L) and conductivity (2400 µS/cm).

EPA's review found that none of the State permits reviewed incorporated provisions that would implement the relevant narrative water quality standards relating to discharges that increase the levels of conductivity, total dissolved solids, and sulfates. The permits do not contain limits

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[13] Gregory J. Pond , Margaret E. Passmore , Frank A. Borsuk , Lou Reynolds , and Carole J. Rose . (2008) Downstream effects of mountaintop coal mining: comparing biological conditions using family- and genus-level macroinvertebrate bioassessment tools. *Journal of the North American Benthological Society* **27**:3, 717-737

[14] U.S. EPA. The Effects of Mountaintop Mines and Valley Fills on Aquatic Ecosystems of the Central Appalachian Coalfields (External Review Draft). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09/138A, 2010.

[15] 401 KAR 5:301, Section 2

based on whole effluent toxicity (WET) and/or a chemical-specific numeric interpretation of the narrative criteria, as required by 40 CFR 122.44(d)(1)(v) and (vi). In addition, the permits' statements of basis/fact sheets do not provide information indicating that the narrative criteria were considered as part of a reasonable potential analysis and development of appropriate numeric effluent limitations. Although EPA's review of each permit is case-specific, EPA expects that a permit that fails to include provisions implementing the narrative water quality standards, and fails to explain why such an omission is appropriate under the regulations, will not be consistent with the requirements of the CWA.[16]

The specific means by which narrative water quality criteria must be interpreted to derive chemical-specific water quality-based effluent limits is provided by 40 CFR 122.44(d)(1), and outlined below. As EPA explained in its preamble, "state narrative water quality criteria must be attained and maintained in the same way as all water quality criteria. Narrative water quality criteria have the same force of law as other water quality criteria, and NPDES permits must contain effluent limits necessary to attain and maintain all applicable water quality criteria, including narrative criteria."[17] As provided by 40 CFR 122.44(d)(1)(vi), where a State has not established a numeric water quality criterion, the permitting authority must establish effluent limits in one of three ways (40 CFR 122.44(d)(1)(vi)(A)-(C)):

(A) Establish effluent limits using a calculated numeric water quality criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use. Such a criterion may be derived using a proposed state criterion, or an explicit state policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's Water Quality Standards Handbook, October 1993, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents; or,

(B) Establish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under §304(a) of the CWA, supplemented where necessary by other relevant information; or

(C) In certain circumstances, establish effluent limitations on an indicator parameter for the pollutant of concern.

The preamble to 40 CFR §122.44(d)(1)(vi), explains that, "It is EPA's intent that the three options in subparagraph (vi) will allow the permitting authority to set effluent limits to control discharges (in the absence of state numerical water quality criteria for all pollutants of concern) that interfere with attaining and maintaining designated uses, while at the same time, giving the

[16] In the limited cases in which a state determines that it is infeasible to calculate a numeric effluent limit to implement a narrative water quality standard, the state should include in the permit appropriate WET limits and best management practices (BMPs) to control or abate the discharge of pollutants, consistent with 40 C.F.R. Section 122.44(k)(3). In these limited circumstances, the state would need to document the basis for its determination that a numeric effluent limit for the narrative standard was infeasible to calculate, and would need to include associated provisions for monitoring the effectiveness of BMPs. Monitoring should include in-stream conditions of aquatic biota consistent with state biocriteria. Should downstream impacts exceed biocriteria, provisions for adaptive remedial action should be included.

[17] 54 Fed. Reg. 23875 (June 2, 1989)

permitting authority sufficient flexibility to account for site-specific impacts on aquatic life or human health."[18]

The regulations at 40 CFR 122.44(d)(1)(v) provide that, where the permitting authority determines that a discharge causes, has the reasonable potential to cause or contributes to an in-stream excursion above a narrative criterion, the permit must contain effluent limits for WET. The exception to this requirement is where the permitting authority can demonstrate [as provided by 40 CFR 122.44(d)(1)(vi)] in the fact sheet or statement of basis, that chemical-specific limits (in this case for conductivity, total dissolved solids or sulfates) are sufficient to attain and maintain applicable numeric and narrative State water quality standards

b. Applicable Numeric Criteria

All the permits reviewed by EPA included appropriate technology-based limits for pollutant parameters listed in the effluent limitation guidelines for coal mining (40 CFR 434). States have adopted these effluent limitations guidelines and the permits reviewed indicate that States are including effluent limitations based on these guidelines in permits for surface coal mine facilities. West Virginia permits also include requirements that are as stringent as, or more stringent, than the 40 CFR 434 requirements. Specifically, West Virginia considers the need for water quality-based effluent limitations for certain pollutants in addition to the technology-based effluent limitations required under §434, and considers the State's antidegradation policy in the development of these water quality-based effluent limitations.

However, many of the reviewed permits did not appear to contain additional limits where necessary to protect water quality standards (Appendix B contains a summary of State water quality criteria) as required by the Clean Water Act by methods outlined in 40 CFR 122.44(d)(1)(ii) and, more specifically, in the Technical Support Document (TSD), or other established State procedures. EPA's review of the administrative records found that parameters known to be present in the effluent, based on data submitted with the permit applications, were often not assessed for the reasonable potential to cause or contribute to an excursion above water quality standards. Where a surface coal mining discharge is found to have reasonable potential to exceed a numeric water quality standard, the regulations require that NPDES permits include water quality-based effluent limits (WQBELs) based on the existing numeric water quality criteria in State water quality standards.

While the PQR found that some permits did incorporate all relevant numeric water quality standards, many permits omitted them. Although each permit requires a case specific analysis in general, an NPDES permit that fails to show evidence of a parameter-specific reasonable potential analysis will be inconsistent with the requirements of the CWA. Furthermore, EPA expects that in many, if not most cases, the available science will demonstrate that there is a reasonable potential for these discharges to cause or contribute to an excursion above numeric or narrative water quality standards, thus making water quality-based effluent limits necessary.

As discussed above, EPA's regulations at 40 CFR 122.44(d)(1)(i) require limitations for all pollutants that have the reasonable potential to cause or contribute to an exceedance of water quality standards. The permitting authority should use data from representative sampling results to perform reasonable potential analyses, documentation of which should be included as part of

[18] 54 Fed. Reg. 23878 (June 2, 1989)

the permit fact sheet or rationale, and be available for review in the administrative record. For new facilities or new discharges that are not currently permitted, which are not expected to have facility-specific effluent data available at time of permit issuance and do not have data from other applicable federal databases, the reasonable potential analysis should utilize available data from nearby existing discharges for similar mines as described in Section 3.2 of the TSD. The reasonable potential analysis should account for receiving water background pollutant concentrations to adequately determine available assimilative capacity (if appropriate) when determining the need for an effluent limitation. If the reasonable potential analysis indicates that the effluent will cause or contribute to the exceedance of the applicable numeric water quality standard or criterion, the permit must require a limit based on the applicable water quality standard or criterion.

Additionally, in cases where there is an approved TMDL for the receiving waterbody, the receiving waterbody is listed as impaired on the State's approved §303(d) list, or a downstream waterbody may be affected by the discharge, it will be important that the reasonable potential analysis include an analysis of the pollutants for which the TMDL was established, for which the waterbody is listed as impaired, or for pollutants that may affect downstream waters.

c. Antidegradation Analyses

During the onsite interview with State personnel, antidegradation policies and procedures were identified and discussed as they relate to surface coal mine permitting. All four States indicated that they had antidegradation implementation procedures in place and were following established processes during the development of permits.

In Kentucky, a Socioeconomic Demonstration and Alternatives Analysis is required under the State's antidegradation policy for discharges into high quality waters, and documents the justification for allowing some degradation of the high quality waters. In every case, it was determined that the use of assimilative capacity was acceptable. In West Virginia, permit limitations are calculated in order to ensure that the allocation was below the de-minimis threshold established in the States' antidegradation procedures. Tennessee has a complex antidegradation implementation procedure; however, documentation of this review was limited. In Ohio, an antidegradation review was conducted for the general permit; proposed facilities discharging into high quality waters are not eligible for general permit coverage, although documentation of this was limited.

It should be noted that a review of the adequacy of antidegradation policies and procedures were not performed as part of the PQR. States may benefit from additional guidance in this area.

Limit Development, Reasonable Potential & Antidegradation Analyses Recommendations

EPA Regions should request that States provide documentation describing how States will interpret their narratives and perform reasonable potential analyses and, where necessary, develop effluent limits (or other permit conditions) to ensure compliance with narrative water quality standards. The State should provide a detailed description of the decision-making process, including the types and sources of data used to characterize both expected effluent quality and receiving water quality with respect to narrative water quality standards. Baseline water quality analyses required for SMCRA permit applications, and projected or estimated effluent concentrations characterizing expected effluent quality, are expected to be used to

inform each State's decisions. In documenting how to interpret and implement their narrative standards, States should take into account the NPDES regulations in 40 CFR 122.44(d)(vi). These regulations require the consideration of relevant information pertaining to pollutants that may cause or contribute to an excursion above an applicable State narrative water quality standard.

At a minimum, should the record indicate that a reasonable potential exists, the permitting authority must demonstrate in the administrative record, based on site-specific information, how the permit implements the narrative water quality standards in a manner that is consistent with the CWA, and Regions are encouraged to review such a record carefully

EPA's current regulations in 40 CFR 122.44(d)(1)(v) and (vi) provide a clear expectation that where a discharge causes, or has the reasonable potential to cause or contribute to an excursion above a narrative criterion, the State must include whole effluent toxicity (WET) limits and/or chemical-specific limits based on a numeric interpretation of the narrative criterion. For surface coal mining facilities where a reasonable potential to cause or contribute to an excursion above a narrative criterion exists, States must require WET testing and WET limits in permits, unless the permitting authority can demonstrate that chemical-specific limits established pursuant to 40 CFR 122.44(d)(1)(vi) (in this case for conductivity, total dissolved solids or sulfates) are sufficient to attain and maintain applicable numeric and narrative State water quality standards. Requirements related to this demonstration are provided in 40 CFR 122.44(d)(1)(vi).

The state must provide adequate documentation in the permit fact sheet or statement of basis to demonstrate that it has assessed reasonable potential and, where necessary, developed effluent limits (or other permit conditions) adequate to protect all applicable water quality standards, including narrative water quality standards. EPA will review the adequacy of the state's explanation in its fact sheet or statement of basis, considering the available scientific and other information. Where EPA concludes that the state's explanation is not adequate, or the state fails to provide an explanation of how it has interpreted or applied its narrative water quality standards, EPA may object to the permit in accordance with the provisions of 40 CFR Section 123.44(c).

Antidegradation regulations require that all permits include limits sufficient to maintain and protect existing uses. For outstanding national resource waters (Tier 3), antidegradation requires the maintenance and protection of ambient water quality (e.g., no lowering of water quality). For high quality waters (Tier 2), where water quality exceeds the level necessary to protect the use, EPA will particularly focus on ensuring that a State has made the finding that allowing lower water quality is "necessary to accommodate important social or economic development in the area in which the waters are located." (40 CFR 131.12(a)(2)) This amounts to a two-part test: demonstration of the extent to which the discharge is "necessary" in the manner and magnitude proposed, and its importance for social or economic development.

The finding of necessity is among the most important and useful aspects of an antidegradation program. EPA expects an alternatives analysis to evaluate whether the proposed discharge is "necessary." This analysis should include consideration of a range of less-degrading or non-degrading alternatives to the direct discharge or to the manner of discharge (e.g., non-discharging options, relocation of discharge, alternative processes, and innovative treatments). In the finding of social or economic importance of a proposed activity, EPA expects the State to analyze the

social and/or economic impact associated with the lowering of water quality. The State should provide documentation to support its antidegradation analysis.

3. Permit Documentation

Under federal regulations, specified draft NPDES permits, including permits for major facilities and general permits,[19] are required to have an accompanying fact sheet that meets specific regulatory criteria and explains the basis for the permit requirements (40 CFR 124.8; also see 124.56). Fact sheets document the key information regarding a facility and its associated discharges, as well as the significant factual, legal, methodological and policy issues considered and addressed in preparing a draft permit. As such, fact sheets document the considerable work performed in developing NPDES permits, and help ensure that all relevant permitting issues are fully considered and addressed. For non-major facilities, documentation requirements are less rigorous; however, the need for a clear record of decision remains an important element of the public participation process and leads to enhanced transparency in the permitting process.

Permit Documentation Findings

With the exception of one West Virginia surface coal mine, all of surface coal mining facilities in Kentucky, Ohio, Tennessee, and West Virginia are non-majors, and therefore, fact sheets are not required when these permits are drafted. Nevertheless, Kentucky, Ohio, Tennessee, and West Virginia reported that it was their current practice to develop a fact sheet or permit rationale for their respective surface coal mine permits.

The process to grant coverage under the general permits in Kentucky and Ohio requires a review of the Notice of Intent (NOI) and, in Kentucky, any effluent or ambient data associated with the proposed discharge. The State files did not contain documentation regarding the findings of the NOI review or documentation of whether any site-specific water quality assessments were performed prior to granting permit coverage. Further, NOIs are not required for existing discharges covered under the previous general permit in order to continue coverage under the current general permit.

Kentucky developed a 33-page fact sheet to accompany its coal mine general permit. This fact sheet explains the basis for the requirements in the general permit. However, in light of recent scientific studies linking surface coal mining discharges to water quality impacts, the fact sheet does not specifically explain how State water quality criteria will be implemented under the general permit for the categories of dischargers provided coverage under the permit, as required by 40 CFR 122.28(a)(3).

Ohio indicated that it did not conduct a site-specific water quality assessment for each facility seeking coverage under the general permit (based on information provided with an NOI); thus, documentation was not available in the permit files.

Tennessee develops fact sheets for the individual permits it issues for surface coal mines. These fact sheets explain the basis for the permit requirements.

[19] A fact sheet also can be required where the Director finds that the draft permit is the subject to wide-spread public interest or raises major issues. (124.8(a)).

West Virginia's practice is to develop a brief 1-2 page "rationale" for its NPDES coal mine permits; although rationales were missing from several of files reviewed during the PQR. Each rationale includes facility-specific information that documents that a site-specific evaluation was conducted, and provides facility name and location information, receiving stream use (using state codes), a list of "parameters of concern" (yes/no indication on an established list of pollutants: pH, total and dissolved aluminum, iron, manganese, and others), a "Justification Review" paragraph, types of effluent limitations (under which outfalls are listed as technology-based, water-quality-based, BPJ, etc.), special conditions or other monitoring requirements (using state codes), and whether the application contains valleyfills/refuse, ephemeral streams, or intermittent/ perennial streams. Although very brief, these rationales provide a basic level of facility-specific information regarding each permit.

Most of the West Virginia rationales indicate that permit limits are water quality-based. Discussion with staff indicated that this is because WVDEP considers its coal mine permit limits to be water-quality-based (required under the States antidegradation policy). Nevertheless, it is presumed that all facilities reviewed during this PQR are also subject to the coal mining ELGs and, as such, the permit, fact sheet, or rationales should include some discussion of the applicability of 40 CFR Part 434 to the discharge. In addition, the rationale pages include a "yes" or "no" check box for specified pollutants of concern, but they do not discuss how these parameters were derived. Additional discussion of pollutants of concern would help interested parties understand how, and the extent to which, water quality was assessed. Finally, in some cases, the permits established effluent limitations for pollutants that were not listed as parameters of concern. There should be consistency between what is indicated as a parameter of concern and what is limited in the permit. These rationales would also benefit from a more complete explanation of the basis and calculation of water quality-based effluent limitations. States would benefit from an updated application regulation to ensure under individual or general permits, reasonable potential analysis is performed. States and Regions should also consider if general permits are appropriate for surface coal mining.

Permit Documentation Recommendations

Based on the findings of this review, State permitting authorities generally should develop more complete fact sheets/rationales and administrative records to support surface mining permits. Even in cases where a fact sheet is not specifically required (i.e., a state-issued permit for a non-major facility) it is good practice to include one so that the public and the permittee understand the basis for conditions in the permit, including the applicability of technology-based effluent limitations and the consideration of numeric and narrative water quality criteria and applicability of water quality-based effluent limits.

Good fact sheets/rationales provide a summary of data and calculations used to assess "reasonable potential" and develop effluent limits, document that all applicable regulatory requirements have been considered, and provide a transparent record of the decision making and administrative process. Further, the administrative record should contain documentation supporting the final permit decision including the application, fact sheet/rationale, response to comments received, and any other information that would help the public understand how the permit decisions were made. Some specific recommendations to strengthen the documentation process include:

- Development of a surface coal mine permit fact sheet template

- Designate more significant surface mining operations as "major" facilities, or have the Director find that certain permits are of wide-spread public interest or raise major issues (which would require a fact sheet that meets federal regulatory requirements).
- Work with States to establish guidelines for a complete administrative record
- A complete administrative record for each permit including all terms, limits and conditions, which is accessible to the public.

Where general permits are used to grant NPDES permit coverage to discharges from coal mining operations, each NOI should be evaluated to determine whether granting coverage under the general permit will ensure that all numeric and narrative water quality standards are protected. Given the recent scientific studies characterizing effluent discharged by surface coal mining operations, and the effects on downstream water quality, where information in the NOI does not demonstrate that the discharge will not cause or contribute to an excursion above narrative or numeric water quality standards, it would be appropriate to deny coverage under the general permit and instead require an individual permit application and develop an individual NPDES permit containing site-specific water quality-based effluent limits and conditions.

In light of these scientific studies, and the case-specific analysis necessary to ensure that surface coal mining activities will achieve water quality standards, coverage under general permits may not be appropriate. Regions are strongly encouraged to advise the permitting authorities whether the Region agrees that general permits are appropriate for these discharges or whether the Region believes that, in light of the environmental impacts caused by these discharges and the need for tailoring permit conditions by receiving water, permitting authorities should require individual permits in all instances. When reviewing a general permit, Regions should review it closely to ensure that it includes all relevant CWA requirements. Some general permits and State NPDES Memoranda of Agreement (MOAs) provide EPA with the opportunity to review notices of intent to be covered under a general permit.

EPA encourages the Region to review notices of intent for general permit coverage for future significant surface mining operations For example, EPA and Kentucky have entered into a MOA that sets out EPA's role in reviewing both individual NPDES permits and individual NOIs to be covered under the general permit. Under the MOA, EPA notified Kentucky in a June 16, 2009 letter that EPA was exercising its option to review and comment, prior to issuance or modification, all draft NPDES individual permits and NOIs for all proposed coverages under an NPDES general permit for projects being evaluated under the ECP process. As a result, under the MOA, EPA will review the general permit NOIs and has 10 days to notify the Kentucky Division of Water of any objection to the applicant's suitability for coverage under the General Permit.

4. Communication

The multiple state and federal authorizations required for surface coal mines makes the permitting process inherently more complex than for activities where only an NPDES permit is required. The permitting agencies responsible for implementing NPDES permits, SMCRA permits, §404 permits, and §401 certifications each have their own specific mission and each operate according to its own requirements and procedures. Yet, each of these permits (and certifications) includes core elements that address aspects of water quality protection. As a result, it is important that each permitting agency work together from the initiation of the

permitting process to perform a comprehensive assessment and ensure that the three permitting processes are coordinated and integrated.

Communication Findings

EPA found no evidence during this review that a fully integrated permitting process (including a coordinated collection of data and assessment of actual and potential water quality impacts across programs) was occurring.

Kentucky, Ohio, Tennessee and West Virginia have each developed largely informal coordination processes for issuing NPDES and other permits relevant to coal mines. Tennessee and West Virginia work at the beginning of the process to identify jurisdictional waters and key issues through an interagency site visit and pre-permit meeting, respectively. Kentucky holds a monthly meeting between KYDEP and KYDNR, and has an MOU in place regarding compliance and enforcement. Ohio conducts basic coordination, and increases coordination when it is necessary. The limited degree of communication may curtail the ability of the permitting departments and agencies to effectively share relevant information, identify key issues, and exert leadership in particular areas.

The coordination of permit implementation appears to be important as well, given that different State departments develop and implement aspects of these permits in three of the four States. NPDES permits for coal mines are issued by each respective State's environmental agency or department. Within these departments, such permits are issued by sub-divisions that focus on mining. Implementation of NPDES permit requirements are monitored primarily by personnel from the agency or department that develops the SMCRA permit. In Tennessee, the federal OSM develops the SMCRA permit, although TNDEC staff participates in certain oversight responsibilities. In Kentucky and Ohio, the Department of Natural Resources develops the SMCRA permit, and in West Virginia, NPDES permits are developed by the WVDEP, Division of Mining and Reclamation (DEC/DMR); however, the final permit is issued under the authority of the Division of Water and Waste Management. Inspectors from this same Division implement NPDES permit requirements in the State. All other NPDES permits in West Virginia are both developed and issued by the Division of Water and Waste Management, Water Permitting Section (Appendix A).

Communication Recommendations

Communication and coordination between the departments and agencies that issue §402, §404, and SMCRA permits and §401 certifications is very limited for all States reviewed, and is generally informal. EPA and other federal and State regulatory agencies should promote more formal coordination between §402, §404, and SMCRA permit development, as well as §401 certification, with the objective of identifying water quality concerns early in the permitting process and using all available data, resources, and mechanisms to address these concerns. Involvement early on in the process can ensure more comprehensive environmental permitting of surface mining facilities.

EPA Regions and their States should examine opportunities to more fully integrate NPDES, SMCRA, and §404 coal mine permitting processes (i.e., water quality characterization, data collection, review and assessment, permit condition development, monitoring and enforcement).

Specifically, the following actions would strengthen the coordination across permitting programs:

- Develop procedures among all State and federal agencies involved in the regulations of coal mining activities, to define goals and coordinate practices to identify water quality issues, and to collect and use all available data, resources, and mechanisms to address these water quality issues.
- Consider a more formal approach for integrating the cumulative hydrologic impact analysis developed as part of SMCRA application process and the water quality impact assessment performed as part of the NPDES permitting process.
- The States should require or promote cross-agency review and approval of key water quality assessment information (e.g. cumulative hydrologic impact analysis, NPDES reasonable potential and limit development analysis, and the §404 water quality impact evaluation, including the State §401 analysis and certification).

5. State §402 Program Resources for Surface Coal Mine Permitting

Limited State resources dedicated to NPDES surface coal mining permitting make it challenging for States to give each facility the individual attention needed to evaluate potential water quality concerns and associated permit conditions. It also limits the States' ability to consider additional monitoring or study data that may provide insight into water quality conditions. Finally, resource constraints appear to curtail the ability of these States to fully coordinate NPDES permitting with other coal mining permitting activities.

State §402 Resources Findings

The review found that limited staff and resources significantly affect the ability of the NPDES permitting authorities in some States to properly evaluate data, assess possible impacts, coordinate with other permit programs (i.e. SMCRA and §404) and document permitting decisions. The four States examined as part of the PQR have very limited resources dedicated to developing large numbers of NPDES surface coal mine permits. Kentucky has the largest number of surface coal mine permits and the fewest dedicated full time employees (FTEs) (2,133 facilities/1-2 FTE). This appears to be one reason Kentucky has chosen to use a general permit for coal mines. West Virginia has the second largest number of coal mine permits (1,356), but does have 15 NPDES coal mine permit writers in four regional offices. Ohio has only one NPDES staff person responsible for its general permit, which covers 200 coal mines. Finally, Tennessee has 2.5 FTEs responsible for 125 permits.

State §402 Resources Recommendations

Recommendations to address resource constraints include:

- Examine alternatives for providing additional resources or shifting existing resources to State coal mine permit programs.
- Provide experienced staff to review and evaluate available water quality assessment data (ambient monitoring, studies, TMDLs, 303(d) lists, etc.). Ensure that sufficient staff is provided to identify and characterize any mine-related water quality impacts.
- Consider the use of additional water quality protection training for NPDES and other coal mine permitting staff, and develop additional templates and guidance at the State level to help standardize and streamline the permitting process.

- Where general permits are used to streamline permitting processes and reduce staffing needs, ensure that these permits are developed and administered in a manner that addresses all relevant water quality issues posed by surface coal mines.

APPENDIX A

OVERVIEW OF COAL MINING NPDES PQR PRELIMINARY FINDINGS

APPENDIX A: OVERVIEW OF COAL MINING NPDES PQR PRELIMINARY FINDINGS[1]

State Approach	Tennessee	West Virginia	Kentucky -General Permit	Ohio - General Permit
Which agency issues the NPDES permit?	DEC – Div. of Water Pollution Control, Surface Mining Section	DEP – Div. of Mining & Reclamation	DEP – Surface Water Permit Branch	OH EPA –Div. of Surface Water
Which agency issues the SMCRA permit?	OSM (federal)	DEP – Div. of Mining & Reclamation	DNR – Div. of Mine Permits	ODNR – Div. of Mineral Resources Management
Which agency issues the 404 permit?	USACE	USACE	USACE	USACE
Which agency issues the §401 certification?	DEC	DEP – Div. of Mining & Reclamation	DNR	OH EPA –Div. of Surface Water
Which agency conducts monitoring/ enforcement?	OSM implements and enforces NPDES permit requirements in the field. DEC/SMS also conduct DMR reviews, perform inspections, develop NOVs, and conduct enforcement. DEC leads any enforcement based on an NPDES violation.	DEP/DMR inspectors implement SMCRA and NPDES permits.	DNR/DMP staff conducts inspections of coal mines (including NPDES compliance). DNR/DMP receives monitoring reports and review violations. Violations that are identified are forwarded to the NPDES permit staff and NPDES enforcement.	EPA relies on DNR (EPA does not actively monitor DNR enforcement). OH EPA enforces individual permits.
Does the State use a specific coordination process?	Pre-mining site visit.	Pre-mining meeting.	Follow regulatory deadlines. Monthly meeting MOU – DEP/ DNR for compliance/ enforcement	Informal, as needed.
Does the State use general permits for coal mines?	No (used a general permit in the past)	No	Yes	Yes
How many NPDES coal mine permits?	123 total (25 active)	1356	2133 (approximately 2000 under general permit)	250 (200 under general permit)
Approximate State staffing (FTEs) dedicated to NPDES coal mine permit issuance.	2.5	15 in four regional offices.	1-2	Columbus – 1 SE dist – 5-6
Are NPDES coal mine permits major or non-major permits?	Non-major	Non-major (nearly all)	Non-major	Non-major

[1] Appendix A provides observation from review of permits provided to EPA by State, interviews of permitting management and staff in State, and additional information provided by EPA Regions.

APPENDIX A: OVERVIEW OF COAL MINING NPDES PQR PRELIMINARY FINDINGS[1]

State Approach	Tennessee	West Virginia	Kentucky -General Permit	Ohio - General Permit
Does the State develop fact sheets for NPDES coal mine permits?	Yes	1-2 page rationale.	Most under GP. GP coverage FS.	Most under GP. Individual – 1 page rationale.
What application forms are used?	State uses Form 1 and Form 2D (new) and 2C (renewal)	State has Form 1. Guide says use MR-5 (several modules).	Use Form 1, Form 2C. NOI – Coal Mining (CM)	Has Form 1, 2C. NOI -4494(1/09).
Are any applications (e.g., NPDES, SMCRA) combined? Specify.	No	No	No	No
Does the State implement the coal mine ELGs?	Yes	Yes	Yes	Yes
Does the State assess RP and impose WQBELs when warranted?	New - Use ELG, and require effluent data for RP analysis within 2 years. DEC does RP when data are submitted. Exist – Conduct RP based on data from application. State conducts biological monitoring.	Baseline Water Quality parameters include conventional, non-conventional, metals, cyanide and total phenols, sulfate, total aluminum, iron and manganese, and others if present. Existing – Sample per application. If data indicate pollutant levels are above the applicable water quality criteria, a limit is included in the permit. For Tier II waters (new permits), limits based on use of no more than 10% assimilative capacity (per antidegradation policy, i.e., beyond 10% is significant degradation). If there are high levels of selenium in the baseline water quality or coal seam analysis, SMCRA requires a selenium handling plan. If a plan is required, a limit is included in the NPDES permit.	GP includes total recoverable iron limit based on acute WQS. NOI and GP require one-time submittal of water quality data. Precip discharge. Screen. Sample discharge, compare with acute criteria. If >90% get more sample to verify. (sample/lab limits). IP. Continuous discharge. 5 samples (prefer 12). Limit if >90% of acute. 70-90=monitoring. <70 nothing. GP requires a one-time benthic macroinvertebrate assessment, and monitoring for conductivity.	GP - Does not address water quality. Based on the ELG background document. Primary metals either cannot be treated, or occur at low levels. IP - If RP (based on DSW spreadsheet), then permit writers follow State policy. The GP requires monitoring (only) for specific conductance.

APPENDIX A: OVERVIEW OF COAL MINING NPDES PQR PRELIMINARY FINDINGS[1]

State Approach	Tennessee	West Virginia	Kentucky -General Permit	Ohio - General Permit
Does the State implement narrative WQS?	TN has narrative standards for: TSS, Toxicity, Iron, Biological integrity. Permit includes limits for TSS and iron. Other parameters are not expressly addressed in permit/ fact sheet. Interview - State has biological monitoring data.	WV has narrative standards for toxicity. Interview - Benthic survey data typically provided as part of the permit application (required in application if conducted within 3 years). Not clear how these data are or will be used.	KY has narrative standards for specific conductance, TSS, TDS, and Toxicity. GP requires one-time submittal of benthic data and monitoring for conductivity. Not clear how these data are or will be used.	Ohio has narrative standards for TSS, Toxicity, and Biological criteria. GP requires compliance with narrative standards specified in the permit. No implementation process or data is specified in the permit. Interview - DNR does check in-stream indicators. They use water indicators.
Does the State include WET requirements in coal mine permits?	No.	No	No	No
Does the State implement antidegradation requirements?	Yes – Staff indicate State process is burdensome.	Yes – Dictates WQ approach and affects assimilative capacity allowed in calculating limits.	Yes – State has developed a streamlined application and submittal process to justify lowering of WQ.	OH EPA uses a special AD process for the coal mine GP. A public hearing is required and the entire permit is subject to the antidegradation process.
Do NPDES coal mine permits authorize or address in-stream treatment?	Interview - TN reported that it does not consider headwater, ephemeral streams as Water of the State, and does not allow treatment in waters that it does consider water of the State.	Not addressed in 402 permits. Construction of sedimentation pond is authorized in 404 permit. Generally, sedimentation ponds are placed as close as practicable to toe of valley fill.	GP expressly does not authorize in-stream treatment. Requires 404 permit, with §401certification. §401 certification adopted by reference in GP.	Interview - 404 permit required for in-stream treatment structures (if subject to 404, not subject to §402).

APPENDIX B

SUMMARY OF STATE NUMERIC WATER QUALITY CRITERIA

APPENDIX B: SUMMARY OF STATE NUMERIC WATER QUALITY CRITERIA

	KY – Warm Water Aquatic Habitat		OH – Aquatic Life		TN – Fish and Aquatic Life		WV – Warm Water Fishery Streams	
	Acute µg/l	Chronic µg/l	Acute* µg/l	Chronic* µg/l	Acute µg/l	Chronic µg/l	Acute µg/l	Chronic µg/l
Aluminum	NS	NS	NS	NS	NS	NS	750*	87*
Antimony	NS	NS	900	190	NS	NS	NS	NS
Arsenic	340	150	340**	150**	340 (III)*	150 (III)*	NS	NS
Beryllium	NS	NS	HD	HD	NS	NS	130	NS
Cadmium	HD	HD	HD	HD	2.0**	0.25**	HD	HD
Chromium	HD	HD	HD	HD	570 (III)**	74 (III)**	HD	HD
Chromium VI (D)	NS	NS	16	11	16*	11*	16	11
Copper	HD	HD	HD	HD	13	9	HD	HD
Iron	4000	1000	NS	NS	Narr.		1.5	1.5
Lead	HD	HD	HD	HD	65**	2.5**	HD	HD
Manganese	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	1.4	0.77	-	-	-	-	2.4	-
Mercury (D)	-	-	1.4	0.77	1.4*	0.77*	-	-
Mercury (TR)	-	-	1.7	0.91	-	-	-	-
Methyl mercury	-	-	-	-	-	-	-	0.012
Nickel	HD	HD	HD	HD	470**	52**	HD	HD
Selenium	20	5	-	-	20	5	20	5
Selenium D	-	-	NS	4.6	-	-	-	-
Selenium TR	-	-	NS	5.0	-	-	-	-
Silver	HD	NS	HD	1.3	3.2**	NS	HD	HD
Thallium	NS	NS	79	17	NS	NS	NS	NS
Zinc	HD	HD	HD	HD	120**	120**	HD	HD
Total Cyanide	NS	NS	-	-	-	-	-	-
Free Cyanides	22	5.2	46	12	22	5.2	22	5
Total Phenols	NS	NS	-	-	-	-	-	-
Phenol	NS	NS	4700	400	NS	NS	NS	NS
TDS	NS	NS	NS	1500000***	NS	NS	NS	NS
Chloride	1200000	600000	NS	NS	NS	NS	860000	230000
Sulfates	NS	NS	NS	NS	NS	NS	NS	NS

HD indicates that State has a numeric water quality standard that is hardness dependent.
NS – Indicates no numeric water quality standard for this use.
D – Dissolved.
TR – Total recoverable.

KY – 401 KAR 10:031. Surface water standards. Sec. 6. Table 1.
http://www.lrc.ky.gov/kar/401/010/031.htm

OH – Ohio River Basin Aquatic Life and Human Health Tier I Criteria and Tier II Values contained in and developed pursuant to Chapter 3745-1 of the Ohio Administrative Code (OAC). (See OAC 3745-1-32 for the human health criteria applicable to the Ohio River mainstem.) Table numbers within this table refer to Chapter 3745-1 of the OAC. Ohio EPA, Division of Surface Water. 10/20/09

http://epa.ohio.gov/portals/35/wqs/Ohioval13.pdf
http://www.epa.state.oh.us/portals/35/rules/01-07.pdf 3745-1-07 Water use designations and statewide criteria.
Acute reflects outside mixing zone maximum (OMZM), Chronic reflect outside mixing zone average (OMZA).
** Standard is same for dissolved and total recoverable.
*** Equivalent 25°C specific conductance value is 2400 micromhos/cm.

TN -- 1200-4-3-.03 CRITERIA FOR WATER USES.
http://www.state.tn.us/sos/rules/1200/1200-04/1200-04-03.pdf
* Dissolved.
** Expressed as dissolved and hardness dependent.

WV -- 47CSR2 APPENDIX E, TABLE 1.
http://www.wvdep.org/Docs/14901_47CSR2_Final_rule_2008.pdf
Not including trout streams, or wetlands.
* Dissolved.

APPENDIX C

MINING PERMIT QUALITY REVIEW CHECKLIST

NPDES Permit Quality Review (PQR)

For Coal Mines

Assessment Packet

September 2, 2009
(DRAFT)

U.S. Environmental Protection Agency
Office of Water – Office of Wastewater Management
Water Permits Division
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

DISCLAIMER

Please note that the checklists and other assessment tools provided in this National Pollutant Discharge Elimination System (NPDES) Permit Quality Review Assessment (PQR) Packet address development of wastewater discharge permits under. NPDES permit development is governed by existing requirements of the Clean Water Act (CWA) and the United States Environmental Protection Agency (EPA) NPDES implementing regulations. CWA provisions and regulations contain legally binding requirements. This document does not substitute for those provisions or regulations.

Assessment criteria presented in this document are not binding; the permitting authority may consider other approaches consistent with the CWA and EPA regulations. When EPA assesses permit quality, it will make each assessment on a case-by-case basis and will be guided by the applicable requirements of the CWA and implementing regulations, taking into account information related to the particular situation. This document incorporates, and does not modify, existing EPA policy and guidance regarding the development of NPDES permits. EPA may change this assessment packet in the future.

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APPENDIX C: MINING PERMIT QUALITY REVIEW CHECKLIST

1.0 Overview

On a rotating basis, the Office of Wastewater Management, Water Permits Division (WPD) at EPA Headquarters (HQ) reviews Regional NPDES programs. During these reviews, WPD staff review topics related to NPDES program implementation including permit backlog, priority permits, action Items, and withdrawal petitions. A large component of each review is the PQR which assesses whether a State adequately implements the requirements of the NPDES Program as reflected in the permit and other supporting documents (e.g., fact sheet, calculations).

Through this review mechanism, EPA HQ promotes national consistency, identifies successes in implementation of the base NPDES program, and identifies opportunities for improvement in the development of NPDES permits. The findings of the review may be used by EPA to identify areas for training or guidance, and by the Region to help identify or assist States in determining any needed action items to improve their NPDES programs.

This NPDES PQR Assessment Packet provides an overview of the PQR process and the type of information that EPA Headquarters assesses during its permit reviews for coal mines. Included are the “central tenets of the NPDES program,” review checklists and questions for the core review and all the topic specific reviews, and a generic PQR site visit outline.

The goal of the checklists is to assess and document whether the permit and administrative record provide a complete, comprehensive, and transparent record of permit development. As such, the checklist responses are not intended to judge the "correctness" or "incorrectness" of permit limits and conditions. Rather, the checklists are intended to guide a comprehensive evaluation of the NPDES permit development process by a knowledgeable EPA or State NPDES permit reviewer.

2.0 PQR Checklists and Questions

2.1 Core Permit Review Checklists

2.1.1 Industrial Permit Checklist

Pre-Site Visit Review Information

		Response	Comment
1.	NPDES Permit number of facility:		
2.	Name of facility:		
3.	Permit Reviewer (Last Name):		
4.	Date of pre-site visit review (MM/DD/YYYY):		
5.	Is the draft permit complete? (Y/N)		
6.	Is the Fact Sheet or Statement of Basis complete? (Y/N)		

Site Visit Review Information

		Response	Comment
7.	Date of site visit review (MM/DD/YYYY)		
8.	Is the file copy of permit the same as the pre-site visit review version? (Y/N)		
9.	Is the file copy of the Fact Sheet/Statement of Basis the same as the pre-site visit review version? (Y/N)		
10.	Did the agency provide a public comment period that met at least the minimum 30-day requirement? (Y/N)		
11.	What outreach efforts were made for the public comment period? Newspapers? (Y/N) Mailing lists? (Y/N) Other? (describe)		
12.	Has the facility received other relevant permits and certifications? SMRCA? (Y/N) 404? (Y/N) 401 cert? (Y/N)		
13.	Does the file (or administrative record) contain appropriate supporting information (e.g., permit application, permit rationale, limit calculations)? (Y/N)		
141.	Is a complete copy of the permit application (including all attachments, diagrams, maps etc.) available in the file? (Y/N)		
15a.	If yes, was the complete permit application submitted in a timely manner (i.e., 180 days prior to discharge or permit expiration)? [see 122.21(c)]		
15b.	If yes, did the applicant provide all of the appropriate analytical data, including metals, cyanide, total phenols, and required GC/MS fractions? [122.21(g)(7)]		
15c.	Was the application signed by an appropriate corporate official? (Y/N)		
16.	For effluent data provided in the permit application, were analytical detection levels sufficiently sensitive to assess compliance with applicable water quality standards? (Y/N) (e.g.: metals with WQ standards EPA method 200.8, mercury EPA method 245.7 or 1631)		
17.	Does the file indicate that the permit writer obtained and reviewed DMR/compliance data? (Y/N)		
18.	Are there any outstanding compliance orders? (Y/N)		

APPENDIX C: MINING PERMIT QUALITY REVIEW CHECKLIST

Facility Information

		Response	Comment
19.	Do the record and permit describe the physical location of the facility (e.g., address, lat/long)? (Y/N)		
20.	Do the record and permit provide the name of the receiving water body(s) to which the facility discharges? (Y/N)		
21.	Are all outfalls from the facility properly identified and authorized in the permit? (Y/N)		
22.	Do the permit and application describe the location (lat/long) for each outfall and the associated receiving water?		
23.	Does the record or permit contain a description of the wastewater treatment process? (Y/N)		

Permit Cover Page/Administration

		Response	Comment
24.	Does the permit term exceed 5 years? (Y/N)		
25.	Does the permit contain specific authorization-to-discharge information (from where to where, by whom)? (Y/N)		
26.	Does the permit contain appropriate issuance, effective, and expiration dates and authorized signatures? (Y/N)		
27.	Is the NPDES permit combined with the mine's operating permit? (Y/N) If no, skip to 28.		
27a.	For a combined permit, are the NPDES requirements segregated from the other permit requirements? (Y/N)		
27b.	If the NPDES requirements are not clearly segregated from other requirements, are they clearly identified? (Y/N/NA)		

Effluent Limits - General Elements

		Response	Comment
28.	Does the record describe the basis (technology or water quality) for each of the final effluent limits? (Y/N)		
29.	Does the record indicate that any limits are less stringent than those in the previous NPDES permit? (Y/N)		
30.	Des the record discuss whether "anti-backsliding" provisions were met? (Y/N)		

Technology-Based Effluent Limits (Effluent Guidelines and BPJ)

		Response	Comment
31.	Does the record adequately document the Effluent Limitations Guidelines categorization process, including an evaluation of whether the facility is a new source or an existing source? (Y/N/NA)		
32.	Does the permit contain phases addressing new active areas as they are opened and/or active areas transitioning to post mining? (Y/N)		
32a.	If yes, does the permit require the facility to notify the permitting authority when mining begins in a new area and/or an area transitions to post mining? (Y/N/NA)		
33.	Does the record adequately document the calculations used to develop all technology-based effluent limits? (Y/N)		

		Response	Comment
34.	**Coal Preparation Plants** Are discharges from coal preparation plants and coal preparation plant areas authorized by the permit? (if no, skip to 35)		
34a.	If pH before treatment is <6 SU, are the daily max/monthly ave limits in mg/l for Fe (7/3.5), Mm (4/2), TSS (70/35), and pH (6 to 9 SU) included in the permit? Note: if New Source Fe limits are 6/3.		
34b.	If the pH before treatment is >6 SU, are limits for Fe (7/3.5), TSS (70/35), and pH (6 to 9 SU) included in the permit? Note: if New Source Fe limits are 6/3.		
35.	**Acid or Ferruginous Mine Drainage** Are Acid or Ferruginous mine drainage discharges authorized? (if no, skip to 38) Note: Acid or Ferruginous means drainage with a pH <6 su or Fe >10 mg/l prior to any treatment.		
35a.	Are limits for: Fe (7/3.5), MN (4/2), TSS (70/35), and pH (6 to 9 SU) included in the permit? Note: if New Source, Fe limits are 6/3.		
36.	**Alkaline Mine Drainage** Are Alkaline mine drainage discharges authorized? If no, skip to 39. Note: Alkaline mine drainage means drainage with a pH >6 SU and FE <10 mg/l prior to any treatment.		
36a.	Are limits for: Fe (7/3.5) TSS (70/35), and pH (6 to 9 SU) included in the permit? Note: if New Source, Fe limits are 6/3.		
37.	**Post Mine Areas** Are post mine area discharges authorized? If no, skip to 38.		
37a.	If reclamation area discharges are authorized, are settleable solids limits (0.5 ml/l) and pH (6 to 9 SU) included? (Y/N/NA)		
37b.	If Acid or Ferruginous drainage from underground workings of underground mines is authorized, are limits for: Fe (7/3.5), Mn (4/2), TSS (70/35), and pH (6 to 9 SU) included? (Y/N/NA) Note: if New Source Fe limits are 6/3.		
37c.	If Alkaline drainage from underground workings of underground mines is authorized, are limits for: Fe (7/3.5), TSS (70/35), and pH (6-9 su) included in the permit? (Y/N/NA) Note: if New Source Fe limits are 6/3.		
38.	**Commingled Discharges** If commingled discharges are permitted, are the most stringent limits for any component applied? (Y/N/NA)		
39.	**Alternate pH limits** If alternate pH limits are applied so that Mn limits can be achieved, are exceedances of pH above 9 minimized?		
40.	**Steep Slope or Precipitation Alternate Limits** Are alternative limits included in the permit? (Y/N) If no, skip to 41.		
40a.	If alternative effluent limits are included in the permit, are they consistent with 40 CFR 434.63? (Y/N)		

		Response	Comment
40b.	Note: 40 CFR 434.63 allows alternative effluent limits as follows: For: discharges of: alkaline drainage except un-commingled underground drainage, steep slope drainage (>20% slope), and coal preparation plant area excluding acid or ferruginous coal refuse pile drainage, are discharges from 10-year 24-hour or greater precipitation events limited for settleable solids (5 ml/l) and pH (6 to 9 SU)? (Y/N/NA)		
40c.	For: acid or ferruginous coal pile drainage are discharges from precipitation events greater than 1-year 24-hour, but less than or equal to 10-year 24-hours limited to settleable solids (0.5 ml/l) and pH (6-9 su)? (Y/N/NA)		
40d.	For: acid or ferruginous mine drainage except steep slope or mountaintop removal drainage, controlled surface discharges, and discharges from underground workings; are discharges resulting from precipitations events less than or equal to the 2-year, 24-hour event limited to Fe (7 mg/l), settleable solids (0.5 ml/l), and pH (6 to 9 SU)? (Y/N/NA)		
40e.	For: acid or ferruginous mine drainage except steep slope or mountaintop removal drainage, controlled surface discharges, and discharges from underground workings; are discharges resulting from precipitation events greater than the 2-year, 24-hour event and less than or equal to the 10-year 24 hour event limited to seattleable solids (0.5 ml/l) and pH (6 to 9 SU)? (Y/N/NA)		
40.	For discharges resulting from precipitation event greater than the 10-year 24-hour event including: alkaline drainage from underground and surface mines; acid or ferruginous drainage from coal piles, underground and controlled surface mine discharges; steep slope and mountaintop removal mines; underground mines which are commingled with other discharges; or from reclamation areas, are limits for pH (6 – 9 su) included in the permit? Y/N/NA)		
41.	**Re-mining** Is re-mining addressed by the permit? (Y/N) If no, skip to 42.		
41a.	Does the record contain a re-mining evaluation? (Y/N)		
42.	Does the record indicate that any limits were developed based on Best Professional Judgment (BPJ)? (Y/N) If no, skip to 43.		
42a	If yes, does the record indicate that the limits were developed considering all of the criteria established at 40 CFR 125.3(d)?		
43.	Are technology-based permit limits expressed in appropriate units of measure (i.e., concentration, mass, SU)? (Y/N)		
44.	Are all technology-based limits expressed in terms of both maximum daily and monthly average limits? (Y/N) If yes, skip to 45.		
44a	If no, is there justification for not including both daily maximum and monthly average limits? (Y/N)		
45.	Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ? (Y/N)		

Water Quality based Effluent Limits

		Response	Comment
46.	Does the record clearly identify the name of the receiving water(s) and the location within the receiving water(s) where each discharge will occur? (Y/N)		
47	Does the record describe (list) the designated uses of the receiving water(s) to which the facility discharges (e.g., contact recreation, aquatic life use)? (Y/N)		
48.	Does the file indicate that the permit writer obtained and reviewed water quality data (e.g., pollutant concentrations, stream flows) for the receiving water (Y/N/NA)		
49.	Were background pollutant concentrations used in the RP analysis? (Y/N) If yes, skip to 50.		
49a.	If background pollutant concentrations were not used in RP analysis, are data required to be collected by the permit? (Y/N//NA)		
49b.	If background data were not used in RP analysis, does the Fact Sheet/Statement of Basis explain why not? (Y/N)		
50.	Does the file indicate that the permit writer obtained and reviewed water quality data useful for determining RP for narrative standards? (chlorides, calcium, magnesium, potassium, conductivity, total dissolved solids, and WET)? (Y/N)		
51	Does the record document that a **water quality impact assessment** (i.e., RP/WQBEL calculations or other WQ model) was performed for this discharger? (Y/N) If no, Skip to 52.		
51a.	Does the record show that a WQ impact assessment was performed for all relevant outfalls at this facility? (Y/N)		
52	Does the record show that the WQ impact assessment was performed in accordance with the State/Region implementation procedures? (Y/N)		
53.	Does the record show that pollutants such as TDS, conductivity, sulfate, potassium, calcium, magnesium, and WET were addressed in the water quality analysis? (Y/N)		
54.	Does the record indicate that narrative Water Quality Standards were assessed? (Y/N)		
54a.	If yes, does the record describe how any resulting limits or permit conditions were derived? (Y/N/NA)		
55.	Does the record describe how “pollutants of concern” were selected for the WQ impact assessment? (Y/N)		
56.	Does the record indicate that any pollutants were missing from the WQ impact assessment (e.g., detected in the effluent or otherwise regulated by TBELs, but no WQ impact assessment performed)? (Y/N)		
57.	Did the WQ impact assessment (i.e., calculations/WQ model) provide an allowance for dilution? (Y/N)		
57a.	If yes, does the record describe how the dilution allowance was determined (e.g., complete/incomplete mixing, critical flow assumptions, mixing zone size)? (Y/N)		
57b.	If yes, did the WQ impact assessment account for contributions from other sources (e.g., ambient/background concentrations/other discharges)? (Y/N/NA)		
58.	Based on the WQ impact assessment, does the permit contain numeric effluent limits for all pollutants that have a reasonable potential to cause or contribute to an excursion of applicable WQ standards? (Y/N/NA)		
59.	Does the record provide WQBEL calculations for all pollutants that were found to have “reasonable potential”? (Y/N/NA)		
59a.	If yes, are the calculation procedures consistent with the State’s implementation procedures? (Y/N/NA)		

		Response	Comment
60.	Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the record? (Y/N)		
61.	For all final WQBELs, are both long-term (e.g., average monthly) and short-term (e.g., maximum daily, instantaneous) effluent limits established? (Y/N/NA)		
62.	Does the record indicate that the permit will allow new or increased loadings to the receiving water? (Y/N)		
62a.	If yes, does the record indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy? (Y/N/NA)		

Impairments / TMDLs

		Response	Comment
63.	Does the record indicate whether the receiving water(s) is/are impaired, or not, for any uses (i.e., that the receiving water(s) is/are listed on the State's 303(d) list)? (Y/N) If no skip to 64.		
63a.	If the receiving water is impaired, did the permit writer require submittal of effluent data for evaluation of the parameters listed as causing the impairment? (Y/N)		
63b.	If the receiving water is impaired, does the record clearly indicate how the impairment was addressed in the permit? (Y/N/NA)		
64.	Does the permit allow the discharge of a pollutant that is listed as the cause of an impairment? (Y/N) If no, skip to 65		
64b.	If the permit allows the discharge that is listed as the cause of an impairment, does it limit that pollutant to criteria at the end of the pipe? (Y/N)		
65.	Does the record indicate whether a TMDL has been completed for the receiving water? (Y/N) If no, skip to 66.		
65a.	If a TMDL has been completed for the receiving water, does the record indicate whether it included a waste load allocation (WLA) for the discharge(s) being permitted? (Y/N/NA)		
65b.	If a WLA was included for the discharge, does the record indicate that appropriate limits are included in the permit? (Y/N/NA)		
65c.	If no WLA was included for the discharge, is the TMDL adequately addressed by the permit and Fact Sheet/Statement of Basis? (Y/N)		

Monitoring and Reporting Requirements

		Response	Comment
66.	Does the permit require at least annual monitoring for all limited parameters? (Y/N)		
66a.	If no, does the record indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver? (Y/N)		
67.	Does the record describe the rationale for monitoring location(s) and frequency(s)? (Y/N)		
68.	Does the permit require testing for Whole Effluent Toxicity? (Y/N)		
	WET notes:		

Special Conditions

		Response	Comment
69.	Does the permit include a compliance schedule? (Y/N) If no, skip to 70.		
69a.	Does the compliance schedule include specific benchmarks? (Y/N)		
69b.	Does the record show that the compliance schedule will lead to compliance with the permit limitation as soon as practicable? (Y/N)		
70.	Did the previous permit include a compliance schedule? (Y/N) If no, skip to 71.		
70a.	If the previous permit included a compliance schedule, does the new permit include a compliance schedule for the same parameter? (Y/N)		
70b.	Does the record show that the permittee now complies with the limits addressed in the previous compliance schedule? (Y/N)		
71.	Does the permit require development and implementation of a Best Management Practices (BMP) plan or site specific BMPs? (Y/N)		
71a.	If yes, does the permit adequately incorporate and require compliance with the BMPs? (Y/N/NA)		
72.	If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements? (Y/N/NA)		
73	Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations? (Y/N/NA)		

Standard Conditions

		Response	Comment
74.	Does the permit contain all 40 CFR 122.41 standard conditions? (Y/N)		

List of Standard Conditions – 40 CFR 122.41

- Duty to comply
- Duty to reapply
- Need to halt or reduce activity not a defense
- Duty to mitigate
- Proper O & M
- Permit actions
- Property rights
- Duty to provide information
- Inspections and entry
- Monitoring and records
- Signatory requirement
- Reporting requirements
- Planned change
- Anticipated noncompliance
- Transfers
- Monitoring reports
- Compliance schedules
- 24 hour reporting
- Other non-compliance
  - Bypass
  - Upset

75.	Does the permit contain the additional standard condition for non-municipals regarding notification levels [40 CFR 122.42(a)]? (Y/N)		

2.1.2 Mixing Zones Checklist

		Response	Comment
1.	Can you determine the size, location, and placement of the mixing zones from the fact sheet and permit?		
2.	What is the magnitude difference between the applicable chemical criteria and permit limit for WQBELs?		
3.	Is the permit consistent with the State's mixing zone policy?		
4.	Has the permit writer assumed complete and total mixing at the point of discharge, thereby granting the full dilution. In those circumstances, is there a documented basis for such a conclusion? Is such a thing explicitly allowed under the State's WQS/permitting implementation regulations?		
5.	Where mixing zones have been granted, has there been any other consideration of other discharges in the vicinity of the permittee's discharge?		
6.	As a basic question, if a mixing zone has been allowed, is there any description of the basis for the mixing zone granted? If it is just based on the defaults contained in the State's WQS is that apparent from the fact sheet?		

2.1.4 Antidegradation Questions

		Response	Comment
1.	Was antidegradation addressed in the permit rationale? (Y/N)		

2.2 Topic Specific Checklists and Questions

2.2.1 Mercury Permit Checklist

		Response	Comment
1.	Does the permit or fact sheet list the regulation and/or a Method of testing (Method 245.7 or 1631)?		
2.	Does the permit have a limit?		
3.	Is the limit, if any, consistent with the method listed?		
4.	If the answer is no for any of the above questions, is there any explanation or narrative justification for it?		

Discharge Monitoring Reports (DMRs)

		Response	Comment
1.	Do they DMRs reflect the permit limits and conditions (including proof or the appropriate rainfall event when alternative limits are applicable per 40 CFR 434.63(e)? Y/N:		
2.	Does the DMR contain the appropriate certification Statement and signature of an appropriate corporate officer? Y/N:		
3.	Is the DMR data input into a database? Y/N: Name of the database:		

3.0 On-site Visit Outline

Staff Attending:

Proposed Schedule (based on State workday):

Day 1:

8:00 am - 8:30 am Introductions and Schedule Review
8:30 am - 10:00 am Preliminary Interview (Permitting process and workflow)
10:00 am - 11:30 am File Review
11:30 am - 12:30 pm Lunch
12:30 pm - 4:00 pm File Review (continued)

Day 2:

8:00 am - 9:00 am Follow-up questions (technical follow-up based on file reviews)
9:00 am - 11:00 am File review wrap up (verifying findings; copying materials)
11:00 am - 11:30 am Closing meeting

Logistics:

A meeting room or workspace where the PQR Team can review files and complete checklists would be great. If the State can have the requested files already available in the room, which would greatly streamline the effort.

The initial interview on the first day will be more process oriented. There is no formal list of questions, but our plan is to discuss the permitting workflow from the application receipt and review, through the drafting process and policy, and the administrative procedure steps

The "core" file review is conducted using a standard checklist which we'd be happy to provide. We also have some particular subject areas that we are highlighting to answer some very specific questions. The subject specific questions are more "yes/no" kinds of things; I don't think we have these written down. Other than a little bit of logistical support (finding copies of missing things, etc), we have been conducting the file reviews without State folks present.

Following the initial file review, we would like to meet with senior technical permitting staff to ask follow-up questions regarding how permit limits and conditions were developed. The focus will likely be water quality and technology limit development.

APPENDIX D

PERMIT QUALITY REVIEW SUMMARIES

List of Permits Reviewed for Permit Quality Review (PQR) in Kentucky

Individual Permits:
KY0094285, ICG Knott
KY0105783, Matt Co.
KY0106691, Matt Co.

Permits not reviewed from Enhanced Coordination Process (not available for review at time of visit):
KY0107310, Clintwood Elkhorn
KY0040495, Czar Coal

General Permit Notices of Intent Reviewed:

KYG042309, Martin County Coal
KYG043989, ICG Hazard
KYG044464, Premier Elkhorn
KYG044470, Premier Elkhorn Coal
KYG044500, Argus Energy
KYG044906, CAM Mining
KYG045423, FCDC
KYG045425, Middle Fork Dev.
KYG045524, Apex Energy
KYG045589, CAM Mining
KYG045609, Consol of KY
KYG045783, The Raven Co.
KYG045810, Clintwood Elkhorn
KYG045818, ICG Hazard
KYG045876, Cheyenne Resources
KYG045879, Apex Energy
KYG045943, Frasure Creek Mining
KYG045961, Czar Coal
KYG045981, Miller Bros. Coal
KYG046024, Consol of KY
KYG046049, Bear Fork
KYG046088, BDCC Holdings
KYG046100, Miller Bros. Coal
KYG046169,46189, Licking River Resources
KYG046173, CAM Mining
KYG046177, Leeco, Inc.
KYG046197, Leeco, Inc.
KYG046205, Nally & Hamilton
KYG046221, Candle Ridge Mining
KYG046229, Premier Elkhorn Coal
KYG046237, Frasure Creek Mining
KYG046264, Miller Bros. Coal
KYG046266, Miller Bros. Coal
KYG046267, Johnson Floyd Coal
KYG046272, Premier Elkhorn Coal
KYG046278, FCDC
KYG046282, Frasure Creek Mining
KYG046283, Miller Bros. Coal
KYG046287, Wolverine Resources
KYG046300, Wolverine Resources
KYG046301, Apex Energy
KYG046309, CAM Mining
KYG046313, Nally & Hamilton
KYG046377, Enterprise Mining

General Information	
Facility Name/ Applicant Name	KPDES Coal General Permit
Permit Number (NPDES & SMCRA or 404 if available)	KYG040000
Description of proposed activity	Covers discharges of “acid or ferruginous mine drainage” from existing source, new discharger, and new sources. Permit excludes coverage of operations classified as “alkaline mines”.
Reviewer/Date	LaDuca; 11-16-2009.
Is the NPDES permit complete? Status of permit.	Yes, Final.
Major or minor facility?	N/A - General
Is there a Fact Sheet or Statement of Basis?	Yes.

Does the permit term exceed 5 years?	No (8-1-2009 through 7-31-2014).
Is the permit application complete?	NOIs are filed for coverage. Some NOIs were reviewed while on-site.
Does the fact sheet discuss pollutants of concern?	Yes.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Yes, 40 CFR 434.
Are the permit limits consistent with the ELG?	Yes.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	The Fact Sheet notes requirements for Acidity, Alkalinity, and Oil and Grease are based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes – The Fact Sheet generally mentions stream use and antidegradation classifications and impaired waters. The Fact Sheet explains why the acute WQC for iron is established.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a "reasonable potential" analysis conducted?	There is no discussion of RP or application of WQBELs in the GP. The GP does include data collection requirements. It is unclear as to how the resulting data, if submitted, will be evaluated.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	Metals, total phenols, and hardness analyses are required with the NOI for evaluation. There is no discussion of WET in the GP.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received "monitor only" requirements	N/A – There is no RP discussion. There are monitoring requirements (one-time) as part of the GP, but the GP does not discuss how those data will be evaluated.
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was social or economical justification (SEJ) included or referenced?	Yes.
Does the permit include a compliance schedule? Describe.	Yes – Only for existing facilities that received coverage prior to permit expiration (12/31/2008), granted 1 year from effective date of GP to comply with daily maximum limit for total recoverable iron (4.0 mg/L).
Does the permit/fact sheet address impairments and TMDLs?	Yes – The GP generally notes there may be impaired waters which receive authorized discharges. The GP does not cover discharges to a 303(d)-listed water impaired for pollutants associated with coal mining.
Does the permit allow in-stream treatment?	No – The GP specifically prohibits in-stream treatment systems.
Comments	
-The GP establishes eight sets of limits and monitoring requirements ("A1" through "A8" in the GP), based on discharge type. -The GP requires a one-time biological (benthic macroinvertebrate) assessment immediately downstream of an outfall. Also requires a one-time analysis of the effluent for metals, total phenols, and hardness (if multiple outfalls but are similar, discharger must demonstrate prior to submitting single sample representative of multiple outfalls). Unclear as to how data will be used/evaluated. -The Fact Sheet provides a detailed justification of limits and monitoring requirements that are established for each type of discharge. In addition to a narrative discussion, the Fact Sheet provides tables of limits and monitoring requirements, including the applicable WQS or ELGs (with regulatory citations). -Some regulatory citations in the Fact Sheet do not appear to match up with regulations on KDOW website (http://www.lrc.ky.gov/kar/TITLE401.HTM). -The Fact Sheet discusses antidegradation and how KY regulations (401 KAR 10:030) establish new procedures for implementing antidegradation in GPs. KDOW may require additional analyses, control measures, or other conditions to comply with antidegradation requirements upon receipt of an NOI for the GP. Therefore, applicants seeking coverage for new or expanded discharges to "High Quality" waters must submit an NOI and a Socioeconomic Demonstration and Alternatives Analysis (SDAA) form.	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Knott County Mining – Coal Prep Plant
Permit Number (NPDES & SMCRA or 404 if available)	NPDES: KY0094285, SMCRA: 860-8012
Description of proposed activity	Coal preparation plant
Reviewer/Date	K. J. Shell; 9/24/2009.
Is the NPDES permit complete? Status of permit.	Yes.
Major or minor facility?	Minor
Is there a Fact Sheet or Statement of Basis?	Yes.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Yes.
Does the fact sheet discuss pollutants of concern?	Yes, but appears to be a limited discussion.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Yes.
Are the permit limits consistent with the ELG?	Yes.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	It is not clear which if any pollutant limits are based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes, the receiving water is named and water quality standards are included in the fact sheet.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	There is no discussion of a reasonable potential analysis conducted, except for consideration of iron (limits based on WQS).
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No, there is no discussion of these parameters.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	It is unclear; there is no discussion of a water quality assessment/ reasonable potential analysis. The record indicates effluent limits are based on ELGs or BPJ, and that limits for iron are based on WQS.
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Yes.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	No – there is no discussion of impairments or TMDLs.
Does the permit allow in-stream treatment?	No.
Comments	
The permit record indicates effluent limits are based on the ELGs or BPJ, except for Iron. It appears a water quality assessment was conducted for Iron, and that resulting effluent limits for Iron are based on the Water Quality Standards.	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Matt/Co Inc.
Permit Number (NPDES & SMCRA or 404 if available)	NPDES – KY0105783; SMCRA – 836-0307
Description of proposed activity	Surface mine. See comment (1).
Reviewer/Date	Hair; 9/24/2009.
Is the NPDES permit complete? Status of permit.	Yes. See comment (1).
Major or minor facility?	Minor
Is there a Fact Sheet or Statement of Basis?	Yes.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Yes.
Does the fact sheet discuss pollutants of concern?	There is no discussion of how pollutants of concern were selected.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Yes (Acid or Ferruginous Mine Drainage discharges).
Are the permit limits consistent with the ELG?	Yes.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	There is no indication that any permit requirements are based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a "reasonable potential" analysis conducted?	There is no discussion of reasonable potential or data.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	There is no indication that these parameters were addressed in the water quality analysis.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received "monitor only" requirements	It is unclear; there is no discussion of reasonable potential.
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	For the old permit (2005) there is no discussion, but for the new application (2007), a full antidegradation analysis is prepared.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	No – there is no discussion
Does the permit allow in-stream treatment?	No – there is no discussion
Comments	
(1) Permit for existing operation dated 7/13/2005; application for expansion dated 10/12/2007. The 2007 activity (i.e., planned expansion) has not been permitted.	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Matt Co.-Sugarloaf Branch
Permit Number (NPDES & SMCRA or 404 if available)	NPDES: KY0106691, SMCRA: 836-5488
Description of proposed activity	Surface mine; this is a new permit.
Reviewer/Date	Syed; 9/24/2009.
Is the NPDES permit complete? Status of permit.	Yes. A draft permit was available for review.
Major or minor facility?	Minor
Is there a Fact Sheet or Statement of Basis?	Yes.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Yes.
Does the fact sheet discuss pollutants of concern?	No.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	The application states that the ELGs do not apply.
Are the permit limits consistent with the ELG?	According to the fact sheet, permit limits are consistent with the ELGs.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	There is no specific discussion of what is based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes, the receiving water is named and water quality standards are included in the record.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	There is no indication that a reasonable potential analysis was conducted.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No, there is no discussion of these parameters.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	It is unclear; there is no discussion of a water quality assessment/ reasonable potential analysis.
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Yes; it is a brief discussion and it is the reason for the individual permit being issued. Discharges are to a high quality water of the State.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	No – there is no discussion of impairments or TMDLs.
Does the permit allow in-stream treatment?	No.
Comments	

Kentucky Notices of Intent Summaries:

NPDES Permit	Facility Owner	Facility Name	NOI[1] Complete?	Antidegradation/ HQAA[2] Analysis?	Coverage Granted	Comments
KYG042309	Martin County Coal	Findlay Branch Mine	None received	None submitted	Unknown	2002 coverage--current status unknown. Incomplete letter 7/6/2009.
KYG043989	ICG Hazard	ICG Hazard	Received, date unknown	N/A	Granted 9/26/2006	Enforcement orders included.
KYG044464	Premier Elkhorn	U/T Old Beefhide	Received, date unknown	N/A	Granted 2/16/2006	
KYG044470	Premier Elkhorn Coal	Premier Elkhorn Coal	Received, date unknown	N/A	Granted 1/13/2004	SMCRA application complete.
KYG044500	Argus Energy	Argus Energy	Received 7/21/2009	Complete	Pending	Effluent characterization received with NOI.
KYG044906	CAM Mining	CAM Mining	Received 6/21/2007	Received 6/21/2007	Granted 1/22/2008	
KYG045423	FCDC	FCDC	Received 1/2/2008	Received 10/13/2008	Granted 12/30/2008	
KYG045425	Middle Fork Dev.	Middle Fork Dev.	Received 3/31/2009	Yes 4/3/2009, Incomplete	Pending	New NPDES: KYG046340
KYG045524	Apex Energy	Apex Energy	Received, date unknown	N/A	Granted 1/13/2004	
KYG045589	CAM Mining	CAM Mining	Resubmitted 9/17/2009	Not submitted.	Pending	
KYG045609	Consol of KY	Area 80	Received 11/15/2005	N/A	Granted, date unknown.	Public notice 1/31/2006. Transferred to new owner.
KYG045783	The Raven Co.	The Raven Co.	NOI Incomplete	N/A	Pending	
KYG045810	Clintwood Elkhorn	Clintwood Elkhorn	Received 7/25/2006	Received 8/22/2008	Pending	Incomplete letter 8/28/2009. HQAA unacceptable.
KYG045818	ICG Hazard	Bearville North	NOI not submitted	N/A	N/A	Ownership Transfer
KYG045876	Cheyenne Resources	Cheyenne Resources	Received, date unknown	N/A	Granted 1/13/2004	
KYG045879	Apex Energy	Apex Energy	Received, date unknown	N/A	Granted 1/13/2004	1/17/2003 Letter of approval

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

NPDES Permit	Facility Owner	Facility Name	NOI[1] Complete?	Antidegradation/ HQAA[2] Analysis?	Coverage Granted	Comments
KYG045943	Frasure Creek Mining	Frasure Creek Mining	Not known.	Not clear from file if completed.	Not clear from file if granted	Multiple name changes since 2005 NOI. Prior owner (ICG) granted coverage from 2006.
NPDES Permit	**Facility Owner**	**Facility Name**	**NOI[1] Complete?**	**Antidegradation/ HQAA[2] Analysis?**	**Coverage Granted**	**Comments**
KYG045961	Czar Coal	Czar Coal	None received	N/A	Pending	Previous coverage in 2004.
KYG045981	Miller Bros. Coal	Miller Bros. Coal	Received, date unknown	N/A	Granted 3/24/2006	
KYG046024	Consol of KY	Slone Br Mine	Received, date unknown	N/A	Granted 2/16/2006	No effluent data.
KYG046049	Bear Fork	Bear Fork	Received, date unknown	N/A	Grated, date unknown	
KYG046088	BDCC Holdings	Cherries Branch	Received, date unknown	N/A	Granted 2/16/2006	
KYG046100	Miller Bros. Coal	Miller Bros. Coal	NOI Incomplete, signed 10/19/2006	Received 11/16/2004	Granted 1/12/2007	Fact sheet 11/21/2006
KYG046169 & 46189	Licking River Resources	Licking River Resources	Received 8/11/2006	None.	Granted 11/30/2006, Issued 1/15/2007	Public Notice 1/17/2007
KYG046189	Licking River Resources	Licking River Resources	Received, date unknown	Yes, no water quality info.	Granted 2/20/2007	Socioeconomic justification included
KYG046173	CAM Mining	Cane Branch	Received 12/4/2006	Received 12/5/2006	Granted 1/22/2008	
KYG046177	Leeco Inc.	Stacy Branch Surface Mine	Not avail for review.	Received 5/23/2007	Granted 7/23/2007	Public notice 7/16/2007. Socioeconomic justification included.
KYG046197	Leeco Inc.	Elk Lick	Received 1/17/2007	Dated 5/21/2007	Granted 2/20/2007	
KYG046205	Nally & Hamilton	Blacksnake Branch No. 1	Received 2/19/2007	Yes, approved.	Granted 4/6/2007	Only Maps and HQAA available for review.
KYG046221	Candle Ridge Mining	Candle Ridge Mining	Received, 1/13/2004	Yes.	Granted 11/21/2007	Socioeconomic justification included
KYG046229	Premier Elkhorn Coal	Premier Elkhorn Coal	Received, date unknown	Yes.	Granted 3/4/2008	Socioeconomic justification included

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NPDES Permit	Facility Owner	Facility Name	NOI[1] Complete?	Antidegradation/ HQAA[2] Analysis?	Coverage Granted	Comments
KYG046237	Frasure Creek Mining	Frasure Creek Mining	Received, date unknown	Yes, socioeconomic info only.	Granted 4/16/2008	HQAA included description of treatment costs.
KYG046264	Miller Bros. Coal	Frasure Branch Mine	Received 9/10/2007	Received 1/30/2008, revised 2/20/2008	Pending	Incomplete letter 7/15/2009.
KYG046266	Miller Bros. Coal	Miller Bros. Coal	Received 10/18/2007	Received 1/23/2008	Pending	Incomplete letter 7/16/2009, effluent data, inadequate HQAA.
KYG046267	Johnson Floyd Coal	Johnson Floyd Coal	Received 10/18/2007	Received 9/12/2008	Granted 3/25/2009	
KYG046272	Premier Elkhorn Coal	Premier Elkhorn Coal	Received 2/4/2008	Received 5/23/2008	Granted 7/24/2008	
KYG046278	FCDC	FCDC	Received 2/6/2008, Incomplete.	None.	Pending	NOI Incomplete. No effluent data.
KYG046282	Frasure Creek Mining	Frasure Creek Mining	Not avail for review.	Yes 1/23/2009	Granted 5/20/2008	NOI was incomplete. Public Notice 5/20/2008
KYG046283	Miller Bros. Coal	Miller Bros. Coal	NOI Incomplete 7/29/2009	Incomplete.	Pending	
KYG046287	Wolverine Resources	Jake Fork and Stoney Branch Surface Mine	NOI Incomplete	Incomplete.	Pending	
KYG046300	Wolverine Resources	Wolverine Resources	NOI Incomplete	Not acceptable 7/2009	Pending	
KYG046301	Apex Energy	Apex Energy	NOI Incomplete	Incomplete.	Pending	Incomplete letter 7/2009, HQAA
KYG046309	CAM Mining	Tom's Branch Surface Mine	Received, date unknown	N/A	Pending.	
KYG046313	Nally & Hamilton	Nally & Hamilton	Received, Incomplete.	N/A	Pending	Needed effluent data, letter sent 7/8/2009
KYG046377	Enterprise Mining	Enterprise Mining	Received, Incomplete 7/2009	N/A	Not issued	Will become individual permit.

Notes:
1. Notice of Intent for coverage under the General Permit, submitted by permittee.
2. HQAA indicates High Quality Water Alternatives Analysis.

List of Permits Reviewed for Permit Quality Review (PQR) in Tennessee

Individual Permits:
TN0079529, Premium Coal Area 19

General Information	
Facility Name/ Applicant Name	Premium Coal Co., Inc. Area 19
Permit Number (NPDES & SMCRA or 404 if available)	TN0079529; Holds SMCRA permit; 401 Certification. 404 permit pending.
Description of proposed activity	Coal mine.
Reviewer/Date	D. Hair; 9/10/09.
Is the NPDES permit complete? Status of permit.	Yes. Final. New Discharger.
Major or minor facility?	Minor.
Is there a Fact Sheet or Statement of Basis?	Fact sheet complete.
Does the permit term exceed 5 years?	No
Is the permit application complete?	Yes
Does the fact sheet discuss pollutants of concern?	No discussion of how POCs were selected.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Yes. 40 CFR 434. Subpart C (Acid or Ferruginous Mine Drainage). NSPS.
Are the permit limits consistent with the ELG?	Yes.
Are alternative limits included in the permit?	No. Permit includes alternative monitoring for precipitation.
Note any permit requirements based on BPJ	
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	The permit identifies receiving waters.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a "reasonable potential" analysis conducted?	No. New facility. Effluent data are required to be submitted within 2 years and, according to the permit, RP will occur at that time.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No RP conducted. NA
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received "monitor only" requirements	No RP conducted yet. NA
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Yes.
Does the permit include a compliance schedule? Describe.	The permit has a compliance schedule for silver and mercury, but limits for these parameters were not identified.
Does the permit/fact sheet address impairments and TMDLs?	The permit does not identify or address impairments or TMDLs.
Does the permit allow in-stream treatment?	The permit does not address in-stream treatment.
Comments	
Permit includes limit for parameters in ELG, and a daily maximum for settleable solids. No RP. New facility. Permit allows two years to submit effluent data (Item V, NPDES Form 2C). Permit includes monitoring and reporting for storm water discharges from access and haul roads.	

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List of Permits Reviewed for Permit Quality Review (PQR) in West Virginia

Individual Permits:
WV0057126, Colony Bay Coal Co.
WV0060097, Green Valley Coal Company
WV1017128, Independence Coal Company
WV1020234, Coyote Coal
WV1020706, Independence Coal Company
WV1020765, Marrowbone Development
WV1021061, Bluestone
WV1021346, Paynter Branch Mining
WV1021583, Eastern Associated Coals
WV1021630, Pioneer Fuel
WV1022156, Wildcat
WV1022296, Alex Energy, Inc.
WV1023039, Hobet Mining
WV1023098, CoalMac, Inc.
WV1029690, CONSOL of Energy (draft)

Permits not reviewed from Enhanced Coordination Process:
(Permit materials not available for review at time of site visit)
WV1023365, Brooks Run Mining
WV1022270, Alex Energy, Inc.

(Permit materials not drafted at time of site visit)
WV1020145, ICG Eastern, LLC
WV1022229, Atlantic Leasco
WV1022539, Coyote Coal Company
WV1029924, Frasure Creek Mining
WV1019708, Consol of Kentucky
WV1021460, Premium Energy, Inc.

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General Information	
Facility Name/ Applicant Name	Colony Bay Coal Company – Colony Bay Surface Mine
Permit Number (NPDES & SMCRA or 404 if avail)	WV0057126, SMCRA: S-7-81, 404 (Corps): 200602290
Description of proposed activity	Operate & maintain Surface mine(s) S-15-81 & S-5009-89 and to discharge treated and storm water.
Reviewer/Date	LaDuca; 10/09/2009.
Is the NPDES permit complete? Status of permit.	Final permit. Permit contains necessary sections; however, it does not clearly indicate an effective date and it does not clearly indicate where each outlet discharges to a receiving stream (incl. corresponding receiving stream to each outlet).
Major or minor facility?	Unknown (from review of permit, Rationale, and PCS).
Is there a Fact Sheet or Statement of Basis?	A Rationale Page consists of one page.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Yes, based on review of additional materials provided by WVDEP.
Does the fact sheet discuss pollutants of concern?	The Rationale lists pollutants of concern but does not discuss the basis for focusing on these pollutants or how effluent limitations were developed.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Unclear. Presumed it is subject to Part 434; however, there is no mention of ELGs or the application of ELGs anywhere.
Are the permit limits consistent with the ELG?	TSS and Mn appear to equivalent to 434.32; however, there is no discussion of ELGs in this permit or rationale.
Are alternative limits included in the permit?	Table 1 is named “Alternate Storm Limitations”, and the Effluent Limits/Monitoring Requirements Table refers to Section A (for Settleable Solids); therefore, it appears limits for Settleable Solids may be based on Alternative Limits.
Note any permit requirements based on BPJ	Rationale page lists “0” are based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	The Rationale page lists the receiving waters, it does not clearly specify WQSs. The Rationale Page designates a “1”; whereas the WQS use letters (i.e., A through E). Presumed 1 = A, but it is not clear.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Unclear; the Rationale Page does not discuss consideration of data, or a water quality assessment/ RP analysis.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	These parameters are not specified in the Rationale Page.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	It is unclear which pollutants, if any, demonstrate RP. POCs listed in section 3.B of the Rationale include pH, Fe, Mn, and Al (dissolved and total). These parameters received effluent limits and monitoring requirements. “L” type limits included for: Flow, pH, TSS, settleable solids, Fe, Mn, and AL (Total and Dissolved)
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	The public notice advertisement states “An anti-degradation review has been conducted. Tier 1 protection is afforded because effluent limitations ensure compliance with water quality criteria for all designated uses.” However, there is no additional language pertaining to the review.
Does permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	Rationale Page only states “…on-bench outlets have been assigned TMDL type L Effluent Limitations.” There is no additional discussion of WLAs, or development of WQBELs.
Does the permit allow in-stream treatment?	There is no mention of in-stream treatment.
Comments	
EPA reviewed additional material for this permit, provided by WVDEP in May 2010. WVDEP provided the permit renewal application and associated attachments, but did not provide a new rationale or permit, even though the comments state that the PQR was conducted on the wrong permit. Additional materials provided by WVDEP also did not include anti-degradation calculation worksheets.	

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General Information	
Facility Name/ Applicant Name	Blue Branch Coal Refuse Disposal Facility / Green Valley Coal Company
Permit Number (NPDES & SMCRA or 404 if available)	WV0060097
Description of proposed activity	Reissuance to discharge treated water and stormwater runoff from haulroads/access roads
Reviewer/Date	Duckworth; 09/25/09.
Is the NPDES permit complete? Status of permit.	Yes, Final.
Major or minor facility?	Unknown
Is there a Fact Sheet or Statement of Basis?	Not for 2008 permit. Rationale dated 10/27/2003 for prior permit.
Does the permit term exceed 5 years?	No
Is the permit application complete?	Application not available in the materials reviewed. Application for prior permit provided.
Does the fact sheet discuss pollutants of concern?	N/A – No fact sheet/rationale in materials provided for 2008 permit. 2003 Rationale identifies parameters of concern..
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Not specified/ discussed. Appears subject to 40 CFR 434.
Are the permit limits consistent with the ELG?	At or below ELG limits.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	N/A
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	N/A – No fact sheet/rationale available for review for 2008 permit. 2003 Rational identifies receiving waters...
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	Not in permit. No fact sheet/rationale available for review.
Was a “reasonable potential” analysis conducted?	No indication of RP in materials available for review for 2008 permit. WQBELs worksheet for outfall 001 for prior permit. 2003 Rationale indicates that outfall 002 has tech-based limits, and 006 and 008 have WQBELs (documentation for 006 and 008 not identified in materials reviewed).
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	Unknown.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	“L” type limits included for: Flow, pH, TSS, settleable solids, Fe, Mn, and AL (Total and Dissolved)
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	N/A – No fact sheet/rationale available for 2008 permit. 2003 Rationale discusses anti-degradation review..
Does the permit include a compliance schedule? Describe.	No
Does the permit/fact sheet address impairments and TMDLs?	No
Does the permit allow in-stream treatment?	No.
Comments	
Receiving stream monitoring (same time as discharge monitoring): flow, turbidity, pH, iron, manganese, aluminum. Permit file materials for prior permit (Modification 4) were submitted. Additional material provided to EPA in May 2010 included new WQBEL worksheets for outfall 001, and the 2003 rationale for Modification 4.	

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General Information	
Facility Name/ Applicant Name	Constitution MTR Surface Mine / Independence Coal Company
Permit Number (NPDES & SMCRA or 404 if available)	WV1017128
Description of proposed activity	Open and operate the mine and to discharge treated water and stormwater runoff – title page states that the permit conforms to anti-deg, Mn 5 mile rule, and aluminum criteria.
Reviewer/Date	Duckworth; 9/23/09.
Is the NPDES permit complete? Status of permit.	Yes, Final.
Major or minor facility?	Unknown
Is there a Fact Sheet or Statement of Basis?	Rationale page.
Does the permit term exceed 5 years?	No
Is the permit application complete?	Yes.
Does the fact sheet discuss pollutants of concern?	Included in Rationale, but no discussion of how they were chosen.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Yes. Appears to be 40 CFR 434.
Are the permit limits consistent with the ELG?	The Permit Rationale page indicates that Outfalls 001, 003, 009, 011, and 016 are subject to TBELs. ELG is not specified.
Are alternative limits included in the permit?	Alternate storm limitations.
Note any permit requirements based on BPJ	
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes, rationale page provides designated uses for streams.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a "reasonable potential" analysis conducted?	The reasonable potential analysis was conducted jointly with antidegradation analysis. Materials provided in May 2010 do include WQBEL calculation sheets.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	Selenium.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received "monitor only" requirements	"L" type limits included for: Flow, pH, TSS, settleable solids, Se, Fe, Mn, and AL (Total and Dissolved).
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	The reasonable potential analysis was conducted jointly with antidegradation analysis.
Does the permit include a compliance schedule? Describe.	No
Does the permit/fact sheet address impairments and TMDLs?	No
Does the permit allow in-stream treatment?	No
Comments	
Aluminum translator study. EPA reviewed additional documentation, including the 401 certification, 1998, 2003 and 2006 draft permits, 2005 revised permit application, baseline water quality analysis with WQBEL calculation sheets, and topographic maps. Although West Virginia noted an extensive permit record for this facility, analyses were not included in earlier permit files, and the analysis remains inadequately documented. Discrepancies between the reasonable potential analysis and final limits were also noted.	

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General Information	
Facility Name/ Applicant Name	Hewitt Creek No. 1 Surface Mine / Coyote Coal Co LLC
Permit Number (NPDES & SMCRA or 404 if available)	WV1020234
Description of proposed activity	Open and operate mine and to discharge treated and stormwater.
Reviewer/Date	Duckworth; 10/21/2009.
Is the NPDES permit complete? Status of permit.	Yes, final.
Major or minor facility?	Minor.
Is there a Fact Sheet or Statement of Basis?	One page Rationale.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Application for current permit not included in materials reviewed.
Does the fact sheet discuss pollutants of concern?	Rationale list parameters of concern. No discussion.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Not specified/ discussed. Appears subject to 40 CFR 434.
Are the permit limits consistent with the ELG?	At or below ELG limits.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Rationale lists stream names and uses letter A-E corresponding to WV WQS.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Previous permit’s RPA Wasteload Allocation Worksheets included for Fe, Mn, and Al in p.115-130 of NPDES Application&Permit.pdf (CD2). Final limits for Mn do not match permit.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	“L” type limits included for: Flow, pH, TSS, settleable solids, Fe, Mn, and AL (Total)
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Rationale indicates antidegradation was conducted for prior permit and that this permit is not for new or expanded discharge.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	Rationale indicates final TMDL is not applicable, and no receiving streams listed as impaired.
Does the permit allow in-stream treatment?	No.
Comments	

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General Information	
Facility Name/ Applicant Name	Independence Coal Company – Glory Surface Mine
Permit Number (NPDES & SMCRA or 404 if available)	NPDES: WV1020706, SMCRA: S-5001-02, 404 (Corps): 200401451
Description of proposed activity	Operate & maintain Surface mine(s); to highwall/auger; to operate two tire disposal areas; to discharge collected water and storm water from adjacent permits, and to discharge treated water and storm water from the operation.
Reviewer/Date	LaDuca; 10/09/2009.
Is the NPDES permit complete? Status of permit.	The permit contains necessary sections; however, it does not clearly indicate an effective date and does not clearly indicate where each outlet discharges to a receiving stream (incl. corresponding receiving stream to each outlet). Status: Final.
Major or minor facility?	Unknown (from review of permit, Rationale, and PCS).
Is there a Fact Sheet or Statement of Basis?	A 2-page draft rationale exists for the WV1020706 permit issued 3/25/2004.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Application not available for the WV1020706 permit issued 5/1/2007 in materials reviewed; however, an application dated 2003 was available and appears to be associated with the WV1020706 permit issued 3/25/2004.
Does the fact sheet discuss pollutants of concern?	The draft rationale associated with the 2004 permit lists pollutants of concern but does not discuss the basis for focusing on these pollutants or how effluent limitations were developed.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Unclear. Presumed it is subject to Part 434; however, there is no mention of ELGs or the application of ELGs anywhere.
Are the permit limits consistent with the ELG?	TSS and Manganese appear to be equivalent to those in 434.32; however, there is no discussion of ELGs in this permit.
Are alternative limits included in the permit?	Yes. Appears based on ELG (with some additional parameters).
Note any permit requirements based on BPJ	There is no indication there are permit requirements based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes. The draft rationale (2004) identifies receiving streams and associated uses (A, B, C, and D).
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Yes – for the 2004 permit. For all discharge points, WLA and assimilative capacity and subsequent calculations of WQBELs were included in the file, to support the effluent limitations established in the WV1020706 permit (issued 3/25/2004). BWQ data (6 parameters/flow) from 4 BWQ stations were in the file. All worksheets identify applicable discharge points and final effluent limits matched WQBELs except for Aluminum (Total). No effluent limits were needed for Chlorides or Zn.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No indication parameters were addressed in materials provided for review.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	Yes. RP was assessed for Fe, Chlorides, Mn, Zn, Al. WQBELs established for Fe, Mn, Al. Monitor – Flow, Al (D). “L” type limits included for: Flow, pH, TSS, settleable solids, Fe, Mn, and AL (Total and Dissolved).
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	The draft rationale (for 2004 permit) states antidegradation information was provided October 2003 and an antidegradation evaluation was conducted.

Does the permit include a compliance schedule? Describe.	The permit (Section D.5) allows a compliance schedule to conduct a Dissolved Aluminum Translator Study.
Does the permit/fact sheet address impairments and TMDLs?	Permit does not address impairments or TMDLs. The draft rationale (for 2004 permit) does not discuss impairments or TMDLs.
Does the permit allow in-stream treatment?	Item 7 of the draft rationale (for 2004 permit) states “the application contains instream ponds – drainage area >200 acres”.
Comments	

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General Information	
Facility Name/ Applicant Name	Taywood West Surface Mine / Southern West Virginia Resources
Permit Number (NPDES & SMCRA or 404 if available)	WV1020765
Description of proposed activity	Reissuance to accept drainage from S-95-85/WV1003682, O-5006-00/WV1020741 and U-5057-89/WV1008218 and to discharge treated water and stormwater runoff
Reviewer/Date	Duckworth; 09/22/09.
Is the NPDES permit complete? Status of permit.	Yes, Final.
Major or minor facility?	Unknown.
Is there a Fact Sheet or Statement of Basis?	Rationale page.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Yes. Entire application not provided, but appears that portions relevant to water quality have been included.
Does the fact sheet discuss pollutants of concern?	Pollutants are identified.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	New source under 40 CFR 434
Are the permit limits consistent with the ELG?	Yes, but rationale page indicates limitations are WQBELs.
Are alternative limits included in the permit?	Alternate Storm Limitations.
Note any permit requirements based on BPJ	No.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Rationale page lists uses A, B, C and D for both streams and also categorizes them as Tier II waters.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Yes; conducted jointly with antidegradation analysis. WQBEL worksheets were provided for prior permit. For prior permit, all limits are consistent with WQBELs except outfall 20 for Fe. Numerous limits in current permit exceed WQBELs calculated for prior permit. No current WQBEL worksheets provided for review.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	There was no apparent discussion of these pollutants. RP provided for prior permit.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	“L” type limits included for: Flow, pH, TSS, settleable solids, Fe, Mn, and AL (Total and Dissolved).
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Public notice advertisements on page 55 and 62 of 102 states “An anti-degradation review has been conducted.” However, there is no additional language pertaining to the review.
Does the permit include a compliance schedule? Describe.	No
Does the permit/fact sheet address impairments and TMDLs?	No
Does the permit allow in-stream treatment?	No.
Comments	
Cover letter states “see Section D Item 5 for Special Conditions.” However, there is no section D.5. Water quality documentation provided for prior permit (6/05-6/08).	

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General Information	
Facility Name/ Applicant Name	Contour and Auger No. 1 Mine / Bluestone Coal Corporation
Permit Number (NPDES & SMCRA or 404 if available)	WV1021061
Description of proposed activity	Open and operate 2 mines and to discharge treated water
Reviewer/Date	Duckworth; 9/28/09.
Is the NPDES permit complete? Status of permit.	Yes, Final.
Major or minor facility?	Unknown.
Is there a Fact Sheet or Statement of Basis?	No.
Does the permit term exceed 5 years?	No, only 4 years.
Is the permit application complete?	Application not available. Interoffice Memo on page 78 of 83 discusses application review.
Does the fact sheet discuss pollutants of concern?	N/A – No fact sheet/rationale available for review.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Not specified/ discussed. Appears subject to 40 CFR 434.
Are the permit limits consistent with the ELG?	At or below ELG limits.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	No.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	N/A – No fact sheet/rationale available for review.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	No.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	“L” type limits included for: Flow, pH, TSS, settleable solids, Fe, Mn, and AL (Total and Dissolved)
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Handwritten notes indicate low Mn limit based on antidegradation. Otherwise, antidegradation not documented in materials reviewed.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	No.
Does the permit allow in-stream treatment?	No.
Comments	
Aluminum translator study Included NPDES Re issuance Advertisement for a different discharger in the permit file. Handwritten notes at the front of the permit indicate that the rationale page is incomplete, Does not explain how limits were calculated. Notes also indicate that the wasteload calculation sheet was not included.	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Paynter Branch Mining (South Surface Mine)
Permit Number (NPDES & SMCRA or 404 if available)	NPDES - WV 1021346 SMA – S400106
Description of proposed activity	Surface mine. New application.
Reviewer/Date	Sherman; 10/23/09.
Is the NPDES permit complete? Status of permit.	Yes. Final permit.
Major or minor facility?	Not indicated. (Nearly all WV coal mines are minor permits).
Is there a Fact Sheet or Statement of Basis?	1-page Rationale (for 1/19/07 draft permit).
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Not included in original materials reviewed. Application appears to be complete in additional materials provided.
Does the fact sheet discuss pollutants of concern?	Identifies parameters of concern: pH, Fe, Mn, Al(D), Al (T). No discussion.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Not specified/ discussed. Appears subject to 40 CFR 434.
Are the permit limits consistent with the ELG?	At or below ELG limits.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	Rationale indicates BPJ Outlets: 0
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	No. Rationale identifies stream use by numeric designation (no explanation or key). State WQS use letters or letter and numbers to designate use categories (see, sec. 47-2-6).
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	WLA and WQBELs worksheets are in the file for all outfalls. For outfalls 6-16 and 22-31, the WQBELs in the worksheets are lower than the limits in the permit. However, final limits for outfalls 6-16 and 22-31 appear to be based on anti-deg/social-economic justification and documentation (other than the SEJ) for these final limits was not identified in the materials available.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	WLA Worksheet – No (addressed Fe, Mn, Al). WQBEL Calculations – No (addressed Fe, Chlorides, Mn, Zn, Al).
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	WLA – Fe, Mn, Al. RP – Fe, Chlorides, Mn, Zn, Al. WQBELs – FE, Mn, Al (T) [Note: State considers all limits WQ-based due to anti-degradation]. Monitor – Flow, Al (D). “L” type limits included for: Flow, pH, TSS, settleable solids, Fe, Mn, and AL (Total and Dissolved)
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Yes. Rationale indicates Anti-degradation (AD) performed. Rationale indicates SEJ was submitted and WQBELs were used instead of AD limits. SEJ advertisement indicates Tier 2 analysis conducted.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	TMDL review performed.
Does the permit allow in-stream treatment?	No.
Comments	
Very limited rationale page. No indication of how POCs were selected, limits not included in Rationale. No description of outfalls. No discussion of applicability of ELG or subcategory. Alternative limits not too clear. Monitoring location not clearly specified. Rationale indicates “Valleyfills/refuse” is N/A.	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Huff Creek Surface Mine #1 / Eastern Associated Coal, LLC
Permit Number (NPDES & SMCRA or 404 if available)	WV1021583
Description of proposed activity	Discuss treated and stormwater runoff.
Reviewer/Date	Duckworth; 10/13/2009;
Is the NPDES permit complete? Status of permit.	Yes, Final.
Major or minor facility?	Unknown.
Is there a Fact Sheet or Statement of Basis?	Rationale page.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Application seems complete for a new facility and contains Benthic Report and Baseline Surface Water Analyses for each outfall; letter included with Final Permit that recommends approval of application.
Does the fact sheet discuss pollutants of concern?	Yes.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Not specified/ discussed. Appears subject to 40 CFR 434.
Are the permit limits consistent with the ELG?	At or below ELG limits.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	No.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Rationale page discusses that all outlets (001-021) are water quality based outlets.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Not identified in materials reviewed.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	Selenium limits included and discussed in Justification Review on Rationale Page.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	“L” type limits included for: Flow, pH, TSS, settleable solids, Se, Fe, Mn, and AL (Total and Dissolved).
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Public notice advertisements on page 85 and 87 of 109 state “An anti-degradation review has been conducted.” Justification Review states “Anti-deg review was performed on the BWQ points assigned by DEP. All outlets will be assigned limits based on the anti-deg.” However, there is no additional language pertaining to the review.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	No.
Does the permit allow in-stream treatment?	No.
Comments	
Cover page calls facility “Surface Mine near Kopperston”, while Rationale and supporting information call facility “Huff Creek Surface Mine #1” Included draft permit in the permit file. Dissolved aluminum was added to the permit. Rationale Page lists N/A for #6 questions about Valley Fill, but Drainage/Proposal Map indicates Valley Fills will be part of this plan.	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	MT 5 Surface Mine / Pioneer Fuel Corporation
Permit Number (NPDES & SMCRA or 404 if available)	WV1021630
Description of proposed activity	Open and operate the MT 5 Surface Mine
Reviewer/Date	Duckworth; 10/19/2009.
Is the NPDES permit complete? Status of permit.	Yes, Final. Draft permit from 2005 contains pertinent analyses.
Major or minor facility?	Unknown.
Is there a Fact Sheet or Statement of Basis?	No. Yes, in draft permit.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	Yes.
Does the fact sheet discuss pollutants of concern?	Yes.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Not specified/ discussed. Appears subject to 40 CFR 434.
Are the permit limits consistent with the ELG?	At or below ELG limits.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	N/A.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Yes. The reasonable potential analysis was conducted jointly with antidegradation analysis.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	Selenium is limited in the permit.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	“L” type limits included for: Flow, pH, TSS, settleable solids, Se, Fe, Mn, and AL (Total and Dissolved).
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	The reasonable potential analysis was conducted jointly with antidegradation analysis.
Does the permit include a compliance schedule? Describe.	Yes, Aluminum, for the entire duration of the permit.
Does the permit/fact sheet address impairments and TMDLs?	No fact sheet/rationale available in materials reviewed.
Does the permit allow in-stream treatment?	No.
Comments	
Transfer from Appalachian Fuels. Interim Aluminum limits. No announcements, memos or Rationale page.	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Wildcat No. 2 Surface Mine
Permit Number (NPDES & SMCRA or 404 if available)	NPDES: WV1022156, SMCRA: S-3016-06, 404 (Corps): 200602033
Description of proposed activity	Operate & maintain Wildcat No. 2 surface mine and to discharge treated and storm water.
Reviewer/Date	LaDuca; 10/09/2009.
Is the NPDES permit complete? Status of permit.	The permit contains necessary sections; however, it does not clearly indicate an effective date and does not clearly indicate where each outlet discharges to a receiving stream (incl. corresponding receiving stream to each outlet). Status: Final.
Major or minor facility?	Unknown (from review of permit, Rationale, and PCS).
Is there a Fact Sheet or Statement of Basis?	A Rationale Page consists of two pages.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	The application reviewed (print-out from a system application) appears to be complete.
Does the fact sheet discuss pollutants of concern?	Lists pollutants of concern; no further discussion of consideration or development of their effluent limitations.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Unclear. Presumed it is subject to Part 434; however, there is no mention of ELGs or the application of ELGs anywhere.
Are the permit limits consistent with the ELG?	TSS and Manganese appear to be equivalent to those in 434.32; however, there is no discussion of ELGs in this permit or rationale.
Are alternative limits included in the permit?	Yes. Table 1 is named “Alternate Storm Limitations.”
Note any permit requirements based on BPJ	Rationale page lists “0” are based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	The Rationale page lists the receiving waters, but does not clearly specify WQS. The Rationale Page designates a “1”; whereas the WQS use letters (i.e., A through E). It’s presumed 1 = A, but it is not clear.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Yes. For all discharge points, WLA and assimilative capacity and subsequent calculations of WQBELs were included in the file. BWQ data (14 parameters/flow) from 4 BWQ stations were in the file. All worksheets identify applicable discharge points and final effluent limits matched WQBELs and for Selenium, the justification in the Rationale. No effluent limits were needed for Chlorides or Zn.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	These parameters are not specified in the Rationale Page, except for Selenium. The Rationale Page includes the statement: “Selenium was added to this permit due to the coal seams mined by this permit.” BWQ data were provided for TDS, conductivity, sulfate, and selenium; however, the WLA and WQBELs calculation worksheets do not address TDS, conductivity, and sulfate.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	Based on the WLA and WQBELs calculations worksheets: Yes. RP was assessed for Fe, Chlorides, Mn, Zn, Al, Se. WQBELs established for Fe, Mn, Al, and Se. Monitor – Flow, Al (D). “L” type limits included for: Flow, pH, TSS, settleable solids, Se, Fe, Mn, and AL (Total and Dissolved).
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Yes, a Tier II anti-degradation review is mentioned as having been performed on the application. There is no mention of a SEJ.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	Yes. The Rationale Page mentions some TMDLs and that some of the effluent limits are based on those TMDLs (e.g.,

	Iron and Aluminum; also, some statements also specify TMDL-based limits are applied end-of-pipe).
Does the permit allow in-stream treatment?	There is no mention of in-stream treatment.
Comments	

General Information	
Facility Name/ Applicant Name	Alex Energy, Inc. – Federal Surface Mine No. 1
Permit Number (NPDES & SMCRA or 404 if available)	NPDES: WV1022296, SMCRA: S-3011-07, 404 (Corps): 200700182
Description of proposed activity	Open & operate the surface mine and to discharge treated water and storm water from the operation.
Reviewer/Date	LaDuca; 10/09/2009.
Is the NPDES permit complete? Status of permit.	The permit contains necessary sections; however, it does not clearly indicate an effective date and does not clearly indicate where each outlet discharges to a receiving stream (incl. corresponding receiving stream to each outlet). Status: Final.
Major or minor facility?	Unknown (from review of permit, Rationale, and PCS).
Is there a Fact Sheet or Statement of Basis?	A rationale page consists of two pages.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	The application reviewed appears to be complete.
Does the fact sheet discuss pollutants of concern?	The Rationale lists pollutants of concern but does not discuss the basis for focusing on these pollutants or how effluent limitations were developed.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Unclear. Presumed it is subject to Part 434; however, there is no mention of ELGs or the application of ELGs anywhere.
Are the permit limits consistent with the ELG?	TSS limits appear to be equivalent to those in 434.32; however, there is no discussion of ELGs in this permit.
Are alternative limits included in the permit?	Yes. Table 1 is named “Alternate Storm Limitations.”
Note any permit requirements based on BPJ	There is no indication there are permit requirements based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	The Rationale page lists the receiving waters, it does not clearly specify WQSs. The Rationale Page designates a “1”; whereas the WQS use letters (i.e., A through E). It’s assumed 1 = A, but it is not clear. In addition, the Rationale indicates the receiving streams listed for the operation are not Trout Streams.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	
Was a “reasonable potential” analysis conducted?	Yes. For all 25 discharge points, WLA and assimilative capacity and subsequent calculations of WQBELs were included in the file. BWQ data (6 parameters/flow) from 8 BWQ stations were in the file. All worksheets identify applicable discharge points and final effluent limits matched WQBELs and for Selenium, the justification in the Rationale. No effluent limits were needed for Chlorides or Zn.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	Unknown.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	Yes. RP was assessed for Fe, Chlorides, Mn, Zn, Al, Se. WQBELs established for Fe, Mn, Al, and Se. Monitor – Flow, Al (D). “L” type limits included for: Flow, pH, TSS, settleable solids, Se, Fe, Mn, and AL (Total and Dissolved).

Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	No fact sheet/ rationale in materials available for review. The public notice advertisement states "An anti-degradation review has been conducted. Tier 1 protection is afforded because effluent limitations ensure compliance with water quality criteria for all designated uses. Tier 2 protection is also afforded because the agency has made a determination that the discharge(s) will not cause significant degradation to the receiving stream(s) for any parameters of concern. " However, there is no additional language pertaining to the review.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	Permit does not address impairments or TMDLs. No fact sheet/rationale available. The Rationale states a TMDL is completed for the Gauley River Watershed, and that two of the receiving streams are impaired for Fe.
Does the permit allow in-stream treatment?	There is no mention of in-stream treatment.
Comments	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Surface Mine #45 / Hobet Mining
Permit Number (NPDES & SMCRA or 404 if available)	WV1023039
Description of proposed activity	Open and operate mine and to discharge treated water and storm water runoff
Reviewer/Date	Duckworth; 10/12/09.
Is the NPDES permit complete? Status of permit.	Yes, Final.
Major or minor facility?	Unknown.
Is there a Fact Sheet or Statement of Basis?	Yes.
Does the permit term exceed 5 years?	No, only 4 years.
Is the permit application complete?	Application not included in materials available for review.
Does the fact sheet discuss pollutants of concern?	Yes.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Not specified/ discussed. Appears subject to 40 CFR 434.
Are the permit limits consistent with the ELG?	At or below ELG limits.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	No.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Yes. The reasonable potential analysis was conducted jointly with antidegradation analysis.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No documentation in materials reviewed. Permit includes limit for Se.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	“L” type limits included for: Flow, pH, TSS, settleable solids, Se, Fe, Mn, and Al (Total and Dissolved)
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Yes. The reasonable potential analysis was conducted jointly with antidegradation analysis. An AASEID was also provided.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	No.
Does the permit allow in-stream treatment?	No.
Comments	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Coal-Mac, Phoenix Coal-Mac Mining
Permit Number (NPDES & SMCRA or 404 if avail)	NPDES - WV 1023098; SMA – S500607;
Description of proposed activity	Pine Creek No. Surface (Coal) Mine
Reviewer/Date	10/20/09.
Is the NPDES permit complete? Status of permit.	Yes; Final (proposed operation).
Major or minor facility?	Minor.
Is there a Fact Sheet or Statement of Basis?	Two page Rationale. Indicates: Facility info; new or expanded (yes); Eligible for GP (No); Stream uses; Parameters of concern; Justification review (AD completed for all outlets); TBELs outlets (0); WQBELs outlets (32); BPJ (0); and Stream monitoring.
Does the permit term exceed 5 years?	No.
Is the permit application complete?	No application in materials reviewed.
Does the fact sheet discuss pollutants of concern?	Parameters of concern - pH, Fe, Mn, Al (D), Al (T).
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Yes. Not discussed/explained (appears to be Subpart C).
Are the permit limits consistent with the ELG?	At or below ELG limits.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	Rationale indicates BPJ Outlets: 0
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	No. Rationale identifies stream use by numeric designation (no explanation or key). State WQS use letters or letter and numbers to designate use categories (see, sec. 47-2-6).
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Yes. Various WLA and assimilative capacity worksheets were in the materials reviewed. Baseline water quality (BWQ) data were in the file (6 parameters/ flow). WQBEL calculations for Fe, Chlorides, Mn, Zn, Al (total), and Se were included on two sheets, one of which did not identify applicable outfalls, and one of which identified outfalls 17 and 18. The WQBELs for Fe, Mn and Al matched the permit limits for all outfalls except for Al limits for 004, 005 and 006 and 019-032 (documentation for these WQBELs was not identified in the materials reviewed). No limits were needed for Chlorides, Zn or Se.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	Manganese and selenium in WQBEL calculations. BWQ for manganese and selenium.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	Yes. WLA – Fe, Mn, Al, Se. RP – Fe, Chlorides, Mn, Zn, Al, Se. WQBELs –Fe, Mn, Al (T) [Note: State considers all limits WQ-based due to anti-degradation]. Monitor – Flow, Al (D). “L” type limits included for: Flow, pH, TSS, settleable solids, Se, Fe, Mn, and AL (Total and Dissolved).
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Yes. Rationale indicates AD was completed for all outlets. No explanation or discussion in rationale.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	303d list indicates impairment (conditions not allowable - biological). Also an Fe TMDL downstream. No discussion.
Does the permit allow in-stream treatment?	No.
Comments	
Very limited rationale page. No indication how POCs were selected. Limits look ok for parameters considered. Various parts of file are not well identified. The original review was based on the permit provided and the other documents included in that file. No permit application was provided in the supplemental materials . No documents were clearly identified as an anti-degradation analysis.	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

General Information	
Facility Name/ Applicant Name	Consol of KY – Buffalo Mountain Surface Mine
Permit Number (NPDES & SMCRA or 404 if available)	NPDES: WV1029690, SMCRA: S-5018-07
Description of proposed activity	Surface mine
Reviewer/Date	Syed; 8/19/2009.
Is the NPDES permit complete? Status of permit.	No – a draft version was available for review.
Major or minor facility?	Minor.
Is there a Fact Sheet or Statement of Basis?	Yes.
Does the permit term exceed 5 years?	The permit reviewed was a draft version.
Is the permit application complete?	Yes.
Does the fact sheet discuss pollutants of concern?	Yes, but appears to be a limited discussion; it references the BWQ Workbook.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Yes; however, the ELG categorization process is not clear.
Are the permit limits consistent with the ELG?	Yes.
Are alternative limits included in the permit?	No.
Note any permit requirements based on BPJ	It is not clear which, if any, pollutant limits are based on BPJ.
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	Yes, the receiving water is named; however, the record incorporates the designated uses of the receiving water(s) by reference.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a “reasonable potential” analysis conducted?	Yes, a water quality assessment is noted.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No, there is no discussion of these parameters.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received “monitor only” requirements	It is unclear; there is no clear discussion of pollutants of concern evaluated in a water quality assessment/ reasonable potential analysis. The record references the BWQ Workbook; however, it does not specifically detail which, if any, limits are established based on RP.
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	It is unclear if anti-degradation is discussed; a draft version of the permit was available for review.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and TMDLs?	Yes.
Does the permit allow in-stream treatment?	No.
Comments	

APPENDIX D: §402 PERMIT QUALITY REVIEW SUMMARIES

List of Permits Reviewed for Permit Quality Review (PQR) in Ohio

General Permit Notices of Intent Reviewed:
OGM00466, OIL00139, Buckingham Wash Plant
OGM00464, Peabody 3
OGM00475, Halls Knob

Permits not reviewed from Enhanced Coordination Process:
(Notices of Intent not yet submitted at time of site visit)
Ohio American Energy, Red Bird South
Oxford Mining, Kaiser Mathias
Oxford Mining, Ellis Area

General Information	
Facility Name/ Applicant Name	Ohio General Permit to Discharge Wastewater and Stormwater from Coal Surface Mining Activities http://www.epa.state.oh.us/portals/35/permits/CoalSurfaceMining_Final_GP_nov08.pdf
Permit Number (NPDES & SMCRA or 404 if available)	OHM000003 http://www.epa.state.oh.us/portals/35/permits/CoalSurfaceMining_Final_GP_nov08.pdf
Description of proposed activity	Covers wastewater from coal mining activities regulated by 40 CFR 434 and storm water regulated by 40 CFR 122.26.
Reviewer/Date	Duckworth; 10-27-2009.
Is the NPDES permit complete? Status of permit.	Yes, final.
Major or minor facility?	General.
Is there a Fact Sheet or Statement of Basis?	Not identified in materials reviewed (or online).
Does the permit term exceed 5 years?	No.
Is the permit application complete?	NOIs are filed for coverage. Some NOIs were reviewed while on-site.
Does the fact sheet discuss pollutants of concern?	N/A – No fact sheet/ rationale was identified and available for review.
Technology-Based Effluent Limits (TBEL)	
Is the facility subject to an ELG? Specify.	Yes, 40 CFR 434.
Are the permit limits consistent with the ELG?	Yes, NSPS for pH<6.0 prior to treatment.
Are alternative limits included in the permit?	Yes.
Note any permit requirements based on BPJ	
Water Quality-Based Effluent Limits (WQBEL)	
Does the fact sheet discuss receiving waters and applicable WQSs? Describe.	N/A – No fact sheet/rationale available for review.
Is there an explanation of implementation or translation of narrative standards to a numeric WQC?	No.
Was a "reasonable potential" analysis conducted?	No documentation identified in materials reviewed. OH GP based on ELG.
Were TDS, conductivity, sulfate, selenium, potassium, calcium, magnesium and WET addressed in the water quality analysis?	No documentation identified in materials reviewed.
Are WQBELs included for all pollutants shown to have RP? - List POCs that were assessed for RP - List POCs that received WQBELs - List POCs that received "monitor only" requirements	No RP.
Additional Topics of Interest	
Was anti-degradation discussed in the permit rationale? Was a social or economical justification (SEJ) included or referenced?	Yes.
Does the permit include a compliance schedule? Describe.	No.
Does the permit/fact sheet address impairments and	No.

TMDLs?	
Does the permit allow in-stream treatment?	No.
Comments	
-The fact sheet associated with the general permit was not available for review. -The effluent limitations in the new permit appear to be largely based on the effluent limitation guidelines at 40 CFR Part 434. - The general permit requires monitoring for all parameters for which there are effluent limits, as well as for flow, specific conductance, and total precipitation. - The general permit includes standard conditions consistent with federal conditions and also states there are "General Effluent Limitations." This set of general effluent limitations read as though they represent narrative water quality criteria, including the requirement that "The effluent shall, at all times, be free of substances…" which is followed by a list of six narrative conditions. There is no discussion in the general permit of how Ohio EPA Division of Surface Water (DSW) will determine compliance with those general effluent limitations. - Ohio's water quality standards (Ohio Administrative Code Chapter 3745-1) include some numeric criteria for certain metals (hardness-dependent); compliance with these water quality criteria is not addressed in the general permit.	

Ohio Notice of Intent Summaries:

NPDES Permit	Facility Name	NOI[1]	Coverage
OGM00466	Buckingham Coal , Buckingham Wash Plant	Received, date unknown.	Effective 11/1/2008
OGM00464	Oxford Mining Company LLC, Peabody 3	Received, date unknown.	Approval Letter 5/13/2009, effective 6/1/2009
OGM00475	Oxford Mining Company LLC, Halls Knob	Received, date unknown.	Effective, date unknown.

Notes:
1. Notice of Intent for coverage under the General Permit, submitted by permittee.