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United States Government Accountability Office
Washington, DC 20548

October 19, 2010

The Honorable Nick J. Rahall, II
Chairman
Committee on Natural Resources
House of Representatives

Subject: *Surface Coal Mining: Information on Clean Water Act Section 404 Permit Reviews under Enhanced Coordination Procedures in Appalachia, Focusing on West Virginia*

Dear Mr. Chairman:

In 2009, West Virginia accounted for about 43 percent of the surface coal mining production in Appalachia.¹ Surface coal mining in the mountainous areas of Appalachia—a process often referred to as mountaintop mining—has generated opposition in recent years because of its impact on landscapes, streams, ecosystems, and communities. In mountaintop mining, before the underlying coal can be extracted, the land is cleared of forest and other vegetation. Explosives or other techniques are then used to break up the overlying solid rock, creating dislodged earth, rock, and other materials known as “spoil.” Some or most of the spoil is placed back on the mined-out area; however, spoil that cannot be safely placed back is often placed as “fill” in adjacent valleys or hollows. In some cases, this fill buries the headwaters of streams.²

Activities associated with surface coal mining are regulated under both the Surface Mining Control and Reclamation Act (SMCRA) and the Clean Water Act (CWA).³ SMCRA requires mine operators to obtain a permit before they begin mining. In West Virginia, the West Virginia Department of Environmental

¹Surface coal mining production in Appalachia also includes areas in Alabama, Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, and Virginia.

²For additional information on surface coal mining in Appalachia, see GAO, *Surface Coal Mining: Characteristics of Mining in Mountainous Areas of Kentucky and West Virginia*, [GAO-10-21](#) (Washington, D.C.: Dec. 9, 2009) and GAO, *Surface Coal Mining: Financial Assurances for, and Long-Term Oversight of, Mines with Valley Fills in Four Appalachian States*, [GAO-10-206](#) (Washington, D.C.: Jan. 14, 2010).

³Surface Mining Control and Reclamation Act, 30 U.S.C. §§ 1201-1328 (2006); Clean Water Act, 33 U.S.C. §§ 1251-1387 (2006).

Protection (WVDEP) administers the SMCRA permit program, subject to the Department of the Interior's (Interior) Office of Surface Mining Reclamation and Enforcement's (OSM) finding that the state program is in accordance with federal law.⁴ OSM annually evaluates how well the state program is administered. To obtain a permit, operators must submit detailed plans describing the extent of proposed mining operations and how they will reclaim the mine site. If the proposed mining operation discharges pollutants into the waters of the United States, the operator also must obtain a CWA section 402 permit. WVDEP administers the section 402 permit program, subject to the Environmental Protection Agency's (EPA) authorization of the state's program.⁵ EPA may review proposed state-issued permits and object to the issuance of a section 402 permit. In addition, if the operation discharges dredged or fill material into the waters of the United States, the operator must obtain a CWA section 404 permit. In West Virginia, the U.S. Army Corps of Engineers (Corps) is responsible for making permit decisions and issuing the section 404 permits; EPA may prohibit, withdraw, deny, or restrict section 404 permits.⁶ Furthermore, any discharges into the waters of the United States resulting from activities conducted under a federal permit, including a section 404 permit, require a state certification under CWA section 401 that the discharges will comply with water quality standards.⁷ In West Virginia, WVDEP is responsible for issuing this certification.

At the beginning of 2009, many CWA section 404 surface coal mining permit applications for operations in Appalachian states, including West Virginia, had been pending for over a year because of litigation and other issues, creating a backlog. A case challenging the adequacy of the Corps' analysis of environmental impacts on several section 404 permits was decided in the Corps' favor in February 2009.⁸ In March 2009, at EPA's request, the Corps identified 48 pending permit applications that it anticipated would reach permitting decisions within 60 days. EPA reviewed these 48 applications and identified 6 for which it had substantial environmental concerns. The Corps processed the other 42 in accordance with existing procedures. For the 6 permit applications of concern, as of August 11, 2010, the Corps had issued section 404 permits for 2, EPA and the Corps were still reviewing 3, and the applicant had withdrawn 1. For the other 42

⁴OSM approved West Virginia's SMRCA State Program in 1981.

⁵EPA authorized West Virginia's section 402 permit program in 1982. In 2009, EPA was petitioned under the CWA by citizens in West Virginia to withdraw the state's section 402 program based on concerns regarding permitting of mining activities.

⁶33 U.S.C. § 1344(c) (2006). The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site, and he is authorized to deny or restrict the use of any defined area for specification (including the withdrawal of specification) as a disposal site in certain circumstances.

⁷33 U.S.C. § 1341 (2006).

⁸Ohio Valley Env'tl. Coalition v. Aracoma Coal Co., 556 F.3d 177 (4th Cir. 2009).

permit applications, the Corps issued permits for 28, 3 were withdrawn, 7 were withdrawn but later resubmitted, and 4 were pending, as of September 3, 2010.

After EPA completed its review of these 48 permit applications, it, along with the Corps, worked together to develop enhanced coordination procedures (ECP) to review the remaining backlog of pending section 404 permit applications for the Appalachian states. The ECP was included as an element of an interagency action plan announced on June 11, 2009, through a memorandum of understanding signed by EPA, the U.S. Army, and Interior.⁹ As the ECP states, its purpose is to

- expedite review and final decisions regarding pending section 404 permit applications for surface coal mining in Appalachia for which the Corps had issued a public notice or coordinated with EPA as of March 31, 2009;
- provide the timely resolution of issues for those permit applications about which EPA has raised substantial environmental concerns;
- ensure effective coordination among the agencies and consistent compliance with applicable CWA provisions, regulations, and relevant policy; and
- provide additional transparency to the public during the period the ECP is in effect.

In order to facilitate timely resolution of permit applications subject to the ECP, Corps districts and EPA regions are to discuss applications identified as requiring additional review and coordination before the beginning of the formal 60-day review process to reduce the total time necessary to reach agreement on each permit. When the Corps believes it has received complete information from the applicant, it is to provide written notice to the relevant EPA region to begin the 60-day review process. Upon receipt of notification from the Corps, each district and region is to begin immediately to discuss permit applications EPA has identified as having remaining concerns in an effort to reach timely resolution. If more time is needed, EPA or the Corps may seek a 15-day extension to the 60-day review process. Should the Corps choose to issue a section 404 permit after the 60-day review period ends, even if issues remain unresolved with EPA, the Corps will provide EPA, within 10 days, a written notice explaining how the Corps is

⁹U.S. Department of the Army, U.S. Department of the Interior, and U.S. Environmental Protection Agency, *Memorandum of Understanding Among the U.S. Department of the Army, U.S. Department of the Interior, and U.S. Environmental Protection Agency Implementing the Interagency Action Plan on Appalachian Surface Coal Mining*, Jun. 11, 2009. Lawsuits have been filed by the National Mining Association and the state of West Virginia that, among other things, challenge the ECP and an EPA guidance document concerning the review of surface coal mining operations under the CWA and other standards. *National Mining Association v. Lisa Jackson*, No. 1:10-cv-01220 (D. D.C. filed July 20, 2010); *Randy C. Huffman v. United States Environmental Protection Agency*, No. 2:10-cv-01189 (N.D. W. Va. filed October 6, 2010). Pursuant to its long-standing policy of not addressing issues in ongoing litigation, GAO has not evaluated the parties' claims and has not come to any conclusions on any matters in dispute in the pending cases.

responding to EPA's concerns.¹⁰ Within 10 days of receiving the Corps' written notice, EPA is to decide whether it intends to veto or restrict a permit under its CWA section 404(c) authority or to allow the Corps to proceed with its permit decision.¹¹

In this context, you asked us to determine (1) the number of surface coal mining permit applications at each stage of the ECP review process, (2) the extent to which EPA Region 3 and the Corps' Huntington District are coordinating during the stages of the review process, (3) how EPA has communicated the requirements an applicant needs to meet to receive a CWA section 404 permit in West Virginia, and (4) what EPA and the Corps' plans are for processing new permit applications that were not among those listed as of June 11, 2009. Our review focused on the Corps' Huntington District and EPA Region 3 based on congressional interest.

On September 16, 2010, we briefed your staff on the preliminary results of our work. This letter summarizes the information presented in that briefing and officially transmits the final briefing slides. (See encl. I.) This letter also provides additional information that your staff requested during the briefing on the status of the 28 CWA section 404 permit applications at the Corps' Huntington District undergoing the ECP review. (See encl. II.)

Summary

As of August 11, 2010, for the 79 CWA section 404 permit applications on the final ECP list, the Corps had issued permits for 6 applications, 1 application was undergoing the 60-day ECP review process, 36 applications were awaiting the start of this process, and 36 applications had been withdrawn. Federal agencies took the following steps to develop the final ECP list that EPA published on September 30, 2009. First, at the request of EPA and other federal agencies, the Corps initially identified a list of 108 permit applications at various stages of review for which it had issued a public notice or coordinated with EPA, as of March 31, 2009, that needed additional evaluation. According to Corps officials, this list was developed quickly and contained 31 permit applications that the Corps and EPA subsequently decided should not be considered for the ECP. As a result, the two agencies removed the 31 applications and added 2, reducing the final ECP list to 79 applications. EPA worked to develop a consistent approach for reviewing these applications to determine if they should be subject to the ECP review process. To make this determination, EPA used its Multi-criteria Integrated Resource Assessment (MIRA) tool to assess the 79 applications against four general areas of concern, which it derived from regulations: (1) minimization and avoidance of impacts to aquatic resources, (2) water quality impacts, (3)

¹⁰According to Corps officials, responses may include revisions, special conditions, and mitigation requirements.

¹¹EPA has not yet vetoed any permit subject to the ECP.

cumulative impacts, and (4) mitigation measures.^{12, 13} EPA concluded that all 79 applications had at least one area of concern, and it therefore included all 79 in the final ECP list that it published on September 30, 2009.¹⁴ Of these 79 applications, the Corps' Huntington District is responsible for reviewing 28. As of August 11, 2010, the Corps' Huntington District had issued permits for 5 applications, 15 applications were awaiting the start of the 60-day ECP review process, and 8 applications had been withdrawn. (See encl. II for more details on these 28 permits.) For one of the eight applications that had been withdrawn, the applicant redesigned the operation, reapplied, and received a section 404 permit outside of the ECP process, and an additional three are redesigning their applications and will be reapplying for a section 404 permit, according to the Corps' Huntington District.

We could not evaluate the extent to which EPA Region 3 and the Corps' Huntington District had coordinated throughout the ECP review process because documentation of coordination efforts is limited and varies. For example, EPA did not document the concerns it presented to the applicants during the initial ECP meetings. Therefore, we could not comprehensively assess the applicant-specific concerns and had to rely on the notes that Corps officials took during the meetings. In addition, EPA and Corps officials sometimes met separately with applicants, but we could not ascertain the extent to which the agencies shared the information discussed during the meetings. According to the ECP, coordination between EPA and the Corps is to occur prior to and during the 60-day review process. No time limit has been established for coordination that occurs prior to the start of the 60-day review process, but EPA and Corps officials indicated that the majority of the effort to resolve concerns about an application occurs at this time. To coordinate their reviews of permit applications, officials at EPA Region 3 and the Corps' Huntington District told us that they have been relying on the following mechanisms:

- **Initial ECP meetings.** EPA, the Corps, WVDEP, and other agencies met with each applicant in January and February 2010. EPA presented its concerns to the applicant and requested that the applicant provide additional information to address these concerns.

¹²MIRA is a tool that EPA has developed to help decision makers make more informed environmental decisions that include stakeholder concerns. It helps decision makers organize and rank decision criteria or indicators, link data to a policy decision, determine the relative importance of decision criteria, and explore alternative decision options.

¹³These regulations, known as the 404(b)(1) guidelines, can be found at 40 C.F.R. Part 230.

¹⁴According to EPA officials, all applications on the ECP list have been pending since the previous administration ended in January 2009, and several have been pending since 2004.

- **Monthly meetings.** Two days at the beginning of each month have been reserved for applicants to meet with all relevant federal and state agencies and to present new information to address their concerns.
- **Intermittent coordination.** Formal coordination, such as the Corps' notice to EPA to start the 60-day review process and EPA's final letters to the Corps, as well as informal coordination, such as e-mails, phone calls, and other meetings, are also used, as needed, to address identified concerns.

While we were unable to evaluate the extent of the coordination occurring between EPA Region 3 and the Corps' Huntington District, federal, state, and industry stakeholders with whom we spoke raised a number of concerns about the effectiveness of this coordination. First, officials and stakeholders said that coordination is hindered because EPA does not send decision makers to monthly meetings. Officials from the Corps and WVDEP and representatives from the West Virginia coal industry expressed frustration over EPA's failure to send officials who are authorized to make decisions about proposals that applicants present at the monthly meetings to address EPA's concerns. Second, according to WVDEP and Corps officials and industry representatives, changes made in response to EPA's concerns on a section 404 permit application often require changes to operations already approved under CWA section 402 or SMCRA permits. This results in the need for additional coordination among EPA, the Corps, applicants, and WVDEP. This additional coordination can sometimes add to the time and cost of obtaining a section 404 permit. For example, officials and industry representatives expressed concern that EPA is seeking to influence how fills are constructed, which is regulated by WVDEP under SMCRA. EPA officials, however, told us that they believe that coordination under the ECP has been regular and effective and that the additional coordination has resulted in surface coal mining projects with reduced environmental, water quality, and human health effects consistent with the requirements of the CWA. EPA officials also stated that some project costs have been reduced as a result of this coordination.

According to EPA officials, the agency communicates the requirements of section 404 and its associated data and information needs to permit applicants in West Virginia through the agency's regulations and guidance, by publishing the results of scientific studies and programmatic reviews, by contacting the applicant directly, and by placing information on its Web site. Specifically, according to EPA officials, the 404(b)(1) Guidelines formed the basis of the four areas of concern that the agency used to assess the 79 permit applications. In addition, EPA's April 1, 2010, Guidance further clarifies EPA's roles and expectations in reviewing CWA section 404 and section 402 permit applications and reflects evolving science on conductivity and review of states'

water quality permit programs.^{15,16} EPA also communicates its data and information needs by referencing the results of scientific studies, such as federal studies examining elevated conductivity and selenium levels downstream from the surface coal mining activities that identified levels at which aquatic life is impaired, and programmatic reviews, such as its 2010 review of states' water quality permit programs, which identified weaknesses in states' CWA section 402 programs.¹⁷ Furthermore, EPA answers applicants' questions directly through letters, meetings, phone calls, and e-mails, and posts information on how to apply for a section 404 permit on its Web site. Despite EPA's efforts, representatives of WVDEP and mining companies in West Virginia stated that EPA does not clearly communicate all the information the agency needs to satisfy its concerns for a particular application. As a result, they are frustrated by EPA's repeated requests for additional information and the uncertainty about the actions needed to obtain a permit. WVDEP and industry representatives told us that the uncertainty over the application process is further exacerbated by EPA's assertion that lessons learned from applicants' experiences cannot be transferred to other applicants. In response to these statements, EPA officials told us that the section 404 permitting process and the 404(b)(1) Guidelines require a case-by-case, detailed look at each permit application to reduce environmental, water quality, and human health impacts. EPA officials also stated that while some applicants have resisted opportunities to coordinate with the agencies about reducing project impacts and complying with the law, other applicants have effectively collaborated with EPA and the Corps to achieve positive permit outcomes.

For new permit applications that were not among those listed for the ECP, as of June 11, 2009, the federal agencies are coordinating and reviewing permit applications in accordance with the standard procedures that were in effect prior to implementation of the ECP process. These procedures are described in 33 C.F.R. Part 325, which describes the Corps' permit application review process, and a memorandum of agreement between EPA and the Department of the Army, pursuant to CWA Section 404(q), which describes the procedures for EPA and the Corps to follow when coordinating their reviews of section 404 permit

¹⁵U.S. Environmental Protection Agency, *Detailed Guidance: Improving EPA Review of Appalachian Surface Coal Mining Operations under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order* (Washington, D.C.: Apr. 1, 2010). According to EPA, this guidance was developed in response to requests from states, congressional representatives, and industry.

¹⁶Conductivity is a measure of the ability of water to pass an electrical current. Conductivity in water is affected by the presence of inorganic dissolved solids, such as aluminum, calcium, chloride, iron, magnesium, nitrate, phosphate, sodium, and sulfate. EPA's April 1, 2010, Guidance states that numerous studies have shown that high levels of conductivity are a cause of water quality impairments downstream from mine discharges.

¹⁷Selenium is a chemical element associated with mine run-off. EPA's April 1, 2010, Guidance states that studies have shown that ecological losses downstream of coal mining valley fills are associated with increased levels of selenium.

applications.¹⁸ While the procedures have not changed, in the post-ECP environment, EPA officials told us, they will now be fully exercising the agency's review authority consistent with the law, which EPA had not done consistently prior to the ECP. Accordingly, EPA officials told us, their reviews will now increasingly focus on water quality, including the evolving science on conductivity and selenium; public health, including drinking water; reducing cumulative impacts; and minimizing and avoiding impacts. In West Virginia, to help facilitate coordination among stakeholders, the Corps and EPA hold monthly pre-application meetings that are attended by WVDEP personnel to allow applicants to discuss their permit applications with federal and state agencies to help expedite the review process.

Agency Comments

We provided a draft of the enclosed briefing slides to the Corps, EPA, and OSM, and provided relevant portions of the slides to WVDEP and the West Virginia Coal Association. We also provided a draft of the additional information you requested at our September 16, 2010, briefing to the Corps for its review and comment. (See encl. II.) OSM and the West Virginia Coal Association provided no comments. In oral comments, EPA officials stated that coordination under the ECP has been regular and effective, and that the additional coordination has resulted in surface coal mining projects with reduced environmental, water quality, and human health effects consistent with the requirements of the CWA. EPA officials also told us that the section 404 permitting process and the 404(b)(1) Guidelines require a case-by-case, detailed look at each permit application, but applicants vary in their efforts to effectively collaborate with agency officials. We incorporated EPA's oral comments into this letter and updated the slides. The Corps, EPA, and WVDEP also provided technical comments, which we incorporated as appropriate.

Scope and Methodology

To determine the permit requirements for surface coal mining operations in Appalachia and the ECP and post-ECP review processes, we reviewed legislation, regulations, guidance, and interagency agreements, and spoke with officials at the Corps, EPA, OSM, and WVDEP, as well as with industry representatives. To determine the number of surface coal mining permit applications at each stage of the ECP review process, we obtained a status update of the 79 CWA section 404 permit applications from Corps' headquarters officials. We also conducted a detailed review of the Corps' Huntington District and EPA Region 3's review of ECP applications and confirmed the status of the 28 applications in the Corps' Huntington District with district officials and officials from EPA Region 3. The Corps' Huntington District was responsible for reviewing 35 percent of permit applications on the ECP list. The information presented on the Huntington District is not generalizable to the entire population of ECP permit applications.

¹⁸33 U.S.C. § 1344(q) (2006).

To determine the extent to which EPA Region 3 and the Corps' Huntington District are coordinating and how EPA is communicating the requirements an applicant needs to meet to receive a section 404 permit in West Virginia, we met with officials from the Corps' Huntington District, EPA Region 3, WVDEP, Interior's OSM in West Virginia, and West Virginia Coal Association. We reviewed examples of coordination and communication, including withdrawal letters, documentation of ECP meetings, e-mails and notes documenting additional discussions with applicants, and letters requesting information from applicants.

We conducted this performance audit from May through October 2010, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

As agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the appropriate congressional committees, Secretaries of Defense and of the Interior, Administrator of the Environmental Protection Agency, Secretary for the West Virginia Department of Environmental Protection, and other interested parties. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3841 or mittala@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Major contributors to this report were Andrea Wamstad Brown (Assistant Director), Antoinette Capaccio, Stephen Cleary, Cheryl Harris, Richard Johnson, Rebecca Shea, and Carol Herrnstadt Shulman.

Sincerely yours,



Anu K. Mittal
Director, Natural Resources and Environment

Enclosures--2



EPA and the Corps' CWA Section 404 Permit Reviews under Enhanced Coordination Procedures

**Briefing to the Committee on Natural Resources
House of Representatives**

**September 16, 2010
(Revised)**



Background – Permits and Certifications Required for Surface Coal Mining Operations in West Virginia

- **Surface Mining Control and Reclamation Act (SMCRA) permit.**
 - West Virginia Department of Environmental Protection (WVDEP) administers the permit program, subject to Interior’s Office of Surface Mining Reclamation and Enforcement’s (OSM) finding that the state program is in accordance with federal law.
 - OSM annually evaluates how well the state program is administered.

- **Clean Water Act (CWA) section 402 permit if the operation discharges pollutants into the waters of the United States.**
 - WVDEP administers the permit program, subject to EPA’s authorization of the state’s program.
 - EPA may review proposed state-issued permits and object to the issuance of a permit.

- **CWA section 404 permit if the operation discharges dredged or fill material into the waters of the United States.**
 - The Corps is responsible for making permit decisions and issuing permits.
 - EPA may prohibit, withdraw, deny or restrict permits.

- **State certification under CWA section 401 that any discharges into the waters of the United States resulting from activities conducted under a federal permit, including a section 404 permit, will comply with water quality standards.**
 - WVDEP issues the certification.



Background – Enhanced Coordination Procedures (ECP)

- ECP’s stated purpose is to:
 - expedite review and final decisions regarding pending section 404 permit applications for surface coal mining in Appalachia for which the Corps had issued a public notice or coordinated with EPA as of March 31, 2009,
 - provide timely resolution of issues for those permit applications about which EPA has raised substantial environmental concerns,
 - ensure effective coordination among the agencies and consistent compliance with applicable CWA provisions, regulations, and relevant policy, and
 - provide additional transparency to the public during the period the ECP is in effect.

- ECP is an element of an interagency action plan announced on June 11, 2009, through a memorandum of understanding signed by EPA, the U.S. Army, and Interior.



Background—ECP Process

- In order to facilitate timely resolution of permit applications subject to the ECP, Corps districts and EPA regions are to discuss applications identified as requiring additional review and coordination before the beginning of the formal 60-day review process to reduce the total time necessary to reach agreement on each permit.
- When the Corps believes it has received complete information from the applicant, it is to provide written notice to the relevant EPA region to begin the 60-day review process.
- Upon receipt of notification from the Corps, each district and region is to begin immediately to discuss permit applications EPA has identified as having remaining concerns in an effort to reach timely resolution.



Background – ECP Process

- EPA or the Corps may seek a 15-day extension to the 60-day review process, if needed.
- Should the Corps choose to issue a section 404 permit after the 60-day review period ends, even if issues remain unresolved with EPA, the Corps will provide EPA, within 10 days, a written notice explaining how the Corps is responding to EPA's concerns.
- Within 10 days of receiving the Corps' written notice, EPA is to decide whether it intends to veto or restrict a permit under its CWA section 404(c) authority or to allow the Corps to proceed with its permit decision.



Background – Events Leading Up to ECP

- At the beginning of 2009, many CWA section 404 surface coal mining permit applications for operations in Appalachian states, including West Virginia, had been pending for over a year as a result of litigation and other issues, creating a backlog.
- A case challenging the adequacy of the Corps' analysis of environmental impacts on several section 404 permits was decided in the Corps' favor in February 2009. In March 2009, at EPA's request, the Corps identified 48 pending permit applications that it anticipated would reach permitting decisions within 60 days.
- EPA reviewed these 48 applications and identified 6 for which it had substantial environmental concerns. The Corps processed the other 42 in accordance with existing procedures.



Background – Events Leading Up to ECP

- Status of the 6 permit applications of concern, as of August 11, 2010:
 - **2 applications:** The Corps had issued section 404 permits.
 - **3 applications:** EPA and the Corps continue to review.
 - **1 application:** Withdrawn by the applicant.
- For the other 42 permit applications: The Corps issued permits for 28, 3 were withdrawn, 7 were withdrawn and resubmitted, and 4 were pending, as of September 3, 2010.



Objectives

1. How many surface coal mining permit applications are at each stage of the ECP review process?
2. To what extent are EPA Region 3 and the Corps' Huntington District coordinating during the stages of the review process?
3. How has EPA communicated the requirements an applicant needs to meet to receive a CWA section 404 permit in West Virginia?
4. What are EPA and the Corps' plans for processing new permit applications that were not among those listed as of June 11, 2009?



Scope and Methodology

- Reviewed legislation, regulations, guidance, and interagency agreements.
- Focused on the Corps' Huntington District and EPA Region 3 based on congressional interest—35% of permit applications on the ECP list; information not generalizable to all ECP permit applications:
 - Obtained status update of CWA section 404 permit applications from the Corps. Confirmed status information with officials from the Corps' Huntington District and EPA Region 3.
 - Met with officials from the Corps' Huntington District, EPA Region 3, WVDEP, Interior's OSM in West Virginia, and West Virginia Coal Association.
 - Reviewed examples of coordination and communication, including withdrawal letters, documentation of ECP meetings, e-mails and notes documenting additional discussions with applicants, and letters requesting information from applicants.



Objective 1: Applications at Each Stage of ECP Review Process

- At the request of EPA and other federal agencies, the Corps initially identified a list of 108 permit applications at various stages of review for which it had issued a public notice or coordinated with EPA, as of March 31, 2009, that needed additional evaluation.
- According to Corps officials, the initial list of 108 permit applications was developed quickly and contained several permit applications that should not have been considered for review under the ECP process.
- As a result, the Corps and EPA removed 31 applications and added 2 applications, reducing the ECP list to 79 applications.



Objective 1: Applications at Each Stage of ECP Review Process

How the Corps and EPA Reduced the List of 108 CWA Section 404 Permit Applications to 79 Applications

Initial total	108
Permit application was subsequently withdrawn by the mining company	-14
Permit issuance was imminent and occurred prior to, or concurrent with, the publication of the list	-8
An ongoing enforcement action precluded a permit decision	-3
Permit application was not complete	-1
Underground mining operations EPA determined were inappropriate for ECP	-5
Additional applications added to the original list	+2
Final total number of applications to be considered for ECP	79

Source: GAO analysis of Corps' data.



Objective 1: Applications at Each Stage of ECP Review Process

- EPA regions 3, 4, and 5 worked to develop a consistent approach for reviewing the 79 applications to determine if they should be subject to the ECP review process.

- EPA used its Multi-criteria Integrated Resource Assessment (MIRA) tool to assess the 79 applications against four general areas of concern which it derived from regulations:
 - Minimization and avoidance of impacts to aquatic resources
 - Water quality impacts
 - Cumulative impacts
 - Mitigation measures

- All 79 applications had at least 1 area of concern and were therefore included in the final ECP list that EPA published on September 30, 2009.



Objective 1: Applications at Each Stage of ECP Review Process

Number of CWA Section 404 Permit Applications at Each Stage of ECP, by Corps District, as of August 11, 2010

Corps district	Status				Total
	Application withdrawn	Application awaiting start of 60-day review process	Application undergoing 60-day review process	Permit issued for application	
Huntington ^a	8	15	0	5	28
Louisville ^a	24	21	1	0	46
Nashville	2	0	0	1	3
Pittsburgh	2	0	0	0	2
Total	36	36	1	6	79

Source: GAO analysis of Corps' data.

^aThree permit applications for operations located in Kentucky that were originally filed in the Corps' Huntington District were transferred to its Louisville District. One of these permit applications has been withdrawn and two are awaiting the start of the 60-day review process.



Objective 1: Applications at Each Stage of ECP Review Process

- Status of the Corps' Huntington District's 28 permit applications on the ECP list:
 - Permits issued for 5 applications
 - 15 applications awaiting start of the 60-day review process
 - 9 applicants responding to requests for additional information
 - 6 applicants have not been responsive
 - 8 applications have been withdrawn



Objective 1: Applications at Each Stage of ECP Review Process

- Applicants decided to redesign and resubmit 4 of the 8 withdrawn applications at the Huntington District:
 - 1 applicant was issued a section 404 permit outside of the ECP process
 - 3 applicants are still in process of resubmitting applications for review
- 2 of the 8 withdrawn applications were administratively withdrawn by the Corps because requested information had not been received
- 2 others were withdrawn by the Corps at the request of the applicant



Objective 2: EPA Region 3 and Corps' Huntington District Coordination of Review under ECP

- Coordination between EPA and the Corps is to occur prior to and during the 60-day review process.
- No time limit has been established for coordination that occurs prior to the start of the 60-day review process.
- EPA and Corps officials indicated that the majority of the effort to resolve concerns about an application occurs prior to the start of the 60-day review process.



Objective 2: EPA Region 3 and Corps' Huntington District Coordination of Review under ECP

- EPA Region 3 and Corps' Huntington District officials told us that they have been relying on a variety of coordination mechanisms:
 - **Initial ECP meetings**—EPA, the Corps, WVDEP, and other agencies met with each applicant in January and February 2010. EPA presented its concerns to the applicant and requested the applicant provide additional information to address these concerns.
 - **Monthly meetings**—Two days at the beginning of each month have been reserved for applicants to meet with all relevant federal and state agencies and to present new information to address their concerns.
 - **Intermittent coordination**—Formal coordination, such as the Corps' notice to EPA to start the 60-day review process and EPA's final letters to the Corps, as well as informal coordination, such as e-mails, phone calls, and other meetings, as needed to address identified concerns.



Objective 2: EPA Region 3 and Corps' Huntington District Coordination of Review under ECP

- We could not evaluate the extent to which EPA Region 3 and the Corps' Huntington District had coordinated throughout the process because documentation of coordination efforts is limited and varies.
 - EPA did not document the concerns it presented to the applicants during the initial ECP meetings. Therefore, we could not comprehensively assess the applicant-specific concerns and had to rely on the notes that Corps officials took during the meetings.
 - EPA and Corps officials sometimes meet separately with applicants, but we could not ascertain the extent to which the agencies shared the information discussed during the meetings.



Objective 2: EPA Region 3 and Corps' Huntington District Coordination of Review under ECP

- Officials and stakeholders said that coordination is hindered because EPA does not send decision makers to monthly meetings. Officials from the Corps and WVDEP and representatives from the West Virginia coal industry expressed frustration over EPA's failure to send officials who are authorized to make decisions about proposals that applicants present at monthly meetings to address EPA's concerns.
- According to WVDEP and Corps officials and industry representatives, changes made in response to EPA's concerns on a section 404 permit application often require changes to operations already approved under CWA section 402 or SMCRA permits. This results in the need for additional coordination among EPA, the Corps, applicants, and WVDEP. This additional coordination can sometimes add to the time and cost of obtaining a section 404 permit. For example, officials and industry representatives expressed concern that EPA is seeking to influence how fills are constructed, which is regulated by WVDEP under SMCRA.
- EPA officials, however, told us they believe that coordination under the ECP has been regular and effective and that the additional coordination has resulted in surface coal mining projects with reduced environmental, water quality, and human health effects consistent with the requirements of the CWA. EPA officials also stated that some project costs have been reduced as a result of this coordination.



Objective 3: EPA's Communication of Section 404 Requirements to Applicants in West Virginia

- According to EPA, it communicates the requirements of section 404 and its associated data and information needs to permit applicants in 3 ways:
 1. Regulations and agency guidance, such as:
 - 404(b)(1) Guidelines—these regulations form the basis of EPA's four areas of concern
 - April 1, 2010, Guidance—further clarifies EPA's roles and expectations in reviewing CWA section 404 and section 402 permit applications and reflects evolving science on conductivity and review of states' water quality permit programs



Objective 3: EPA's Communication of Section 404 Requirements to Applicants in West Virginia

2. Results of studies, such as:

- Federal studies examining elevated conductivity and selenium levels downstream from the surface coal mining activities—identified levels at which aquatic life is impaired
- 2010 EPA review of states' water quality permit programs—identified weaknesses in states' programs under CWA section 402

3. Letters, meetings, phone calls, e-mails, and the agency's Web site



Objective 3: EPA's Communication of Section 404 Requirements to Applicants in West Virginia

- However, representatives of WVDEP and mining companies in West Virginia stated that EPA does not clearly communicate all the information it needs to satisfy its concerns for a particular application. As a result, they are frustrated by EPA's repeated requests for additional information and the uncertainty about the actions needed to obtain a permit.
- WVDEP and industry representatives told us that the uncertainty over the application process is further exacerbated by EPA's assertion that lessons learned from applicants' experiences cannot be transferred to other applicants.
- In response to these statements, EPA officials told us that the section 404 permitting process and the 404(b)(1) Guidelines require a case-by-case, detailed look at each permit application to reduce environmental, water quality, and human health impacts. While some applicants have resisted opportunities to coordinate with the agencies about reducing project impacts and complying with the law, other applicants have effectively collaborated with EPA and the Corps to achieve positive permit outcomes.



Objective 4: Process for Reviewing Permit Applications Not on ECP List

- For post-ECP permit applications, the federal agencies are coordinating and reviewing permit applications in accordance with the standard procedures that were in effect prior to implementation of the ECP process. These procedures are described in:
 - The Corps' permit application review process (33 CFR part 325).
 - EPA and the Corps' coordination procedures (pursuant to CWA Section 404(q)).



Objective 4: Process for Reviewing Permit Applications Not on the ECP List

- However, in the post-ECP environment, EPA officials told us, they will now be fully exercising the agency's review authority consistent with the law, which EPA had not done consistently prior to the ECP.

- Accordingly, EPA officials told us, their reviews will now increasingly focus on:
 - water quality, including evolving science on conductivity and selenium;
 - public health, including drinking water;
 - reducing cumulative impacts; and
 - minimizing and avoiding impacts.

- In West Virginia, the Corps and EPA hold monthly pre-application meetings that are attended by WVDEP personnel to allow applicants to discuss their permit applications with federal and state agencies to help expedite the review process.

Enclosure II

Status of the 28 Clean Water Act Section 404 Permit Applications at the Corps' Huntington District, as of August 11, 2010

Application number	Applicant	Project name	County	State	Status
Permits issued for application (5)					
LRH-2004-01152	Buckingham Coal	Buckingham Wash Plant	Perry	OH	Permit issued on 10/26/2009.
LRH-2005-01385	Oxford Mining Company, LLC	Halls Knob	Guernsey	OH	Permit issued on 7/12/2010.
LRH-2007-01021	Oxford Mining Company, LLC	Kaiser Mathias	Tuscarawas	OH	Permit issued on 3/8/2010.
LRH-2008-00791	Hobet Mining	Surface Mine No. 45	Lincoln	WV	Permit issued on 1/6/2010.
LRH-2008-00830	CoalMac, Inc.	Pine Creek Surface Mine	Logan	WV	Permit issued on 7/27/2010.
Applications awaiting start of 60-day ECP review process (15)					
LRH-2005-00217	Bluestone	Contour Auger 1	Wyoming	WV	Application awaiting start of 60-day review process, but applicant has not responded to requests for additional information.
LRH-2005-01115	Green Valley Coal Company	Blue Branch Refuse	Nicholas	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
LRH-2005-01198	Consol	Taywood West & Marrowbone	Mingo	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
LRH-2006-00100	ICG Eastern, LLC	Jenny Creek Surface Mine	Mingo	WV	Application awaiting start of 60-day review process, but applicant has not responded to requests for additional information.
LRH-2006-00760	Paynter Branch Mining	Paynter Branch South Surface Mine	Wyoming	WV	Application awaiting start of 60-day review process, but applicant has not responded to requests for additional information.
LRH-2006-02033	Wildcat	#2 Surface	Kanawha	WV	Application awaiting start of 60-day review process, but applicant has not responded to requests for additional information.

Enclosure II

Application number	Applicant	Project name	County	State	Status
LRH-2007-00134	Atlantic Leasco	Muddlety Surface Mine No. 1	Nicholas	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
LRH-2007-00182	Alex Energy, Inc.	Federal Surface Mine	Nicholas	WV	Application awaiting start of 60-day review process, but applicant has not responded to requests for additional information.
LRH-2007-00285	Alex Energy, Inc.	Lonestar Surface Mine	Nicholas	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
LRH-2007-00286	Pioneer Fuel	MT5B	Raleigh	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
LRH-2008-00491	CONSOL of Energy	Buffalo Mt. Surface Mine	Mingo	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
LRH-2008-00562	Eastern Associated Coals	Huff Creek Surface Mine	Wyoming/ Logan	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
LRH-2008-00805	Coyote Coal Company	Joes Creek Surface Mine	Boone/ Kanawha	WV	Application awaiting start of 60-day review process, but applicant has not responded to requests for additional information.
LRH-2008-01098	Frasure Creek Mining	Spring Fork Surface Mine No. 2	Mingo	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
LRH-2009-00428	Consol of Kentucky	Spring Branch No. 3 Deep Mine	Mingo	WV	Application awaiting start of 60-day review process, and applicant responding to requests for additional information.
Applications withdrawn from ECP (8)					
LRH-2003-00065	Hobet Mining	Hewett	Boone	WV	Application withdrawn, but applicant is in the process of redesigning and resubmitting application for review.
LRH-2004-00624	Independence Coal Company	Constitution Surface Mine	Boone	WV	Application administratively withdrawn by the Corps.
LRH-2004-01155	Brooks Run Mining	Brandy St. & Cove Mtn.	Webster	WV	Application withdrawn by the applicant.
LRH-2004-01451	Independence Coal Company	Glory Surface Mine	Boone	WV	Application administratively withdrawn by the Corps.

Enclosure II

Application number	Applicant	Project name	County	State	Status
LRH-2005-00421	Oxford Mining Company, LLC	Peabody 3	Coshocton/ Muskingum/ Guernsey	OH	Application withdrawn, but applicant redesigned and resubmitted application and was issued a permit.
LRH-2005-01211	Premium Energy, Inc.	Premium Mills Surface Mine	McDowell	WV	Application withdrawn, but applicant is in the process of redesigning and resubmitting application for review.
LRH-2006-00127	Consol of Kentucky	Slone Branch Mine	Knott	KY	Application withdrawn by the applicant.
LRH-2006-02290	Colony Bay Coal Co.	Colony Bay Surface Mine	Boone	WV	Application withdrawn, but applicant is in the process of redesigning and resubmitting application for review.

Source: GAO analysis of Corps' data.

Note: Three permit applications for operations located in Kentucky that were originally filed in the Corps' Huntington District were transferred to its Louisville District. One of these permit applications has been withdrawn and two are awaiting the start of the 60-day review process.

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