THE OBAMA ADMINISTRATION'S OBSTRUCTION OF COAL MINING PERMITS IN APPALACHIA



United States Senate Committee on Environment and Public Works

Minority Staff

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Summary of Investigation Findings

- Our investigation found that the Obama Administration is using the Clean Water Act Section 404 permitting process to dismantle the coal industry in the Appalachian region.¹
- After a thorough investigation of the 235 coal mining 404 Permits that were under review by EPA as of May 11, 2009, we found that their obstruction is having a deleterious effect on rural jobs, energy production and small businesses in Appalachia.
- Since the initiation of this investigation, EPA issued 45 of the 235 permits, which allowed these projects to move forward. Our investigation, which included gathering information from EPA as well as conducting detailed interviews with permit applicants, found that the remaining 190 coal mining operations tied up at EPA are expected to produce over 2 billion tons of coal (throughout the life of operations) and support roughly 17,806 new and existing jobs as well as 81 small businesses.

To put this in perspective, unless EPA releases the remaining 190 permits:

• Roughly 1 in every 4 coal mining jobs in the Appalachian region will be at risk of elimination, 81 small businesses will lose significant income and will be at risk of bankruptcy and over 2 years of America's coal supply will be in jeopardy.

These impacts hit especially hard in West Virginia and Kentucky, where the majority of the delayed mining operations are located. EPA's actions, or lack thereof, will also impact other Appalachian states, including Ohio, Pennsylvania, Virginia, Tennessee and Alabama.

Kentucky, Tennessee, West Virginia, Virginia, and Pennsylvania. However EPA has raised issues with permits in Alabama. For purposes of this report, the Appalachian region includes the following states: Alabama, Virginia, West Virginia, Tennessee, Pennsylvania, Ohio, Kentucky, and Maryland.

¹ The federal government defines Appalachia in U.S. Code as consisting of areas in 13 eastern states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia (40 U.S.C.A. \$ 14102) (West 2005 & Supp. 2009). EPA in the course of their actions over the past year has referenced Appalachia as consisting of Ohio, Kentucky, Tennessee, West Virginia, Virginia, and Pennsylvania. However EPA has raised issues with

Introduction

An investigation by the Minority Staff of the Senate Committee on Environment and Public Works (EPW) was initiated in response to concerns about the lack of transparency and apparent inconsistencies in the U.S. Environmental Protection Agency's (EPA) handling of Clean Water Act Section 404 permits ('404 Permits') for coal mining in the Appalachian region. Throughout 2009, EPA froze 235 coal mining 404 Permits, claiming that additional time was needed to assess the environmental impacts of mining operations.

Protecting human health and the environment is an integral part of EPA's mission. The 404 permit process embodies that mission. If a permit is not protective of human health and the environment, then EPA should deny that permit application. However, keeping 404 permits in a constant state of review creates uncertainty in the regulatory process. A permit should be reviewed and accepted or denied, not left in abeyance with no final outcome.

Since the initiation of our investigation, EPA issued 45 of the 235 permits, allowing these projects to move forward. Currently there are 190 permits that the agency is holding.² Our investigation reveals that:

These permits are expected to produce over 2 billion tons of coal throughout the life of operations, support roughly 17,806 existing and new

jobs, and support 81 small businesses.

EPA's delays in handling these permits are jeopardizing jobs in Appalachia and the energy security of the nation.

Our report also highlights the confusing and contradictory statements made by EPA concerning its review of these permits. Our investigation found that EPA never publicly stated in clear terms the extent of its review of these permits.

Additionally, pursuant to our investigation, we found that EPA often politicized issues surrounding mountaintop mining permits—which only comprise a small segment of the mining permits that were placed on hold—as a means of achieving a much broader goal to restrict all coal mining activities in Appalachia that it regulates.

What are 404 Clean Water Act Permits?

Section 404 of the Clean Water Act established a permit program to regulate activities, including mining operations, that discharge dredged and fill material into waters of the United States. The Army Corps of Engineers implements the 404 permit program and issues these permits, using environmental guidelines issued by EPA. EPA and other agencies are authorized to comment on and review permit applications. However, EPA is the only agency that can veto a proposed disposal site. In doing so, EPA can place holds on permit applications and influence the Corps' decision to approve or deny permits.

² Data analysis for this report was completed on March 5, 2010. All data in this report reflects our findings as of that date. EPA may have issued permits or placed holds on permits after this date, but that information is not reflected in this report.

Investigation Methodology

This report is comprised of facts assembled from an investigation of 235 Clean Water Act Section 404 Permits that were placed on hold by EPA as of May 11, 2009. Permit numbers and company names were obtained from EPA in response to a request by Ranking Member Inhofe for all coal mining 404 Permits under review by the EPA as of this date.

Upon receipt of the permit number and company name from EPA, EPW Minority Staff conducted a thorough investigation, interviewing permit applicants directly to obtain information, including: 1) the type of mining operation; 2) the jobs associated with the operation; 3) the size of the company requesting the permit; and 4) the estimated tons of coal the mining operation in question would produce. The information was gathered between September and December 2009. Staff then compiled and analyzed the data that support the facts presented in this report.

It is important to note that a number of permit applicants were, when interviewed, contemplating filing for bankruptcy or shutting down operations until the market and regulatory environment improved. Therefore, not all permit applicants interviewed may be in business today, but all were in business at the time of the interviews.

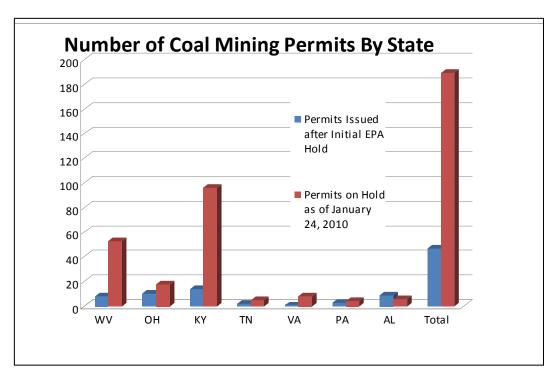


Figure 1. Number of coal mining permits on hold, compared with number of permits that have been issued by EPA since the initiation of this investigation.

The U.S. Senate Environment and Public Works Committee Oversight Authorities

The EPW Committee is the authorizing committee for the Environmental Protection Agency and the Army Corps of Engineers (Civil Works). The Committee also has jurisdiction over the Clean Water Act, which is implemented by the EPA. The Committee used its oversight authorities to investigate the actions of the EPA with respect to the Clean Water Act.

One in Every Four Mining Jobs at Risk

The 190 coal mining operations that EPA is currently blocking support 14,814 coal mining jobs in the Appalachian region. The coal mining industry employed 58,745 coal miners in the Appalachian region in 2008.³ Thus, if the EPA continues to block the permits noted above, roughly 1 out of every 4 coal mining jobs in the Appalachian region could be lost. Overall, the coal industry employed 86,859 people in 2008,⁴ so EPA's actions, from a national perspective, could result in the elimination of one out of every six coal mining jobs. (See Figure 2.)

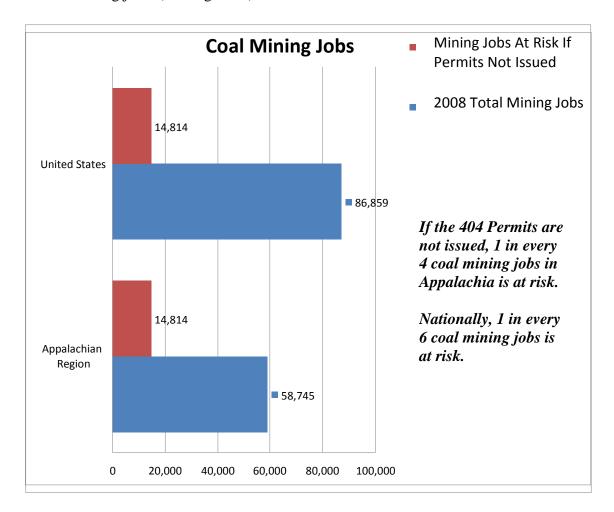


Figure 2. Total coal mining jobs lost in the U.S. and the Appalachian Region compared with the total coal mining jobs in the region and nationwide in 2008.

A study by Penn State University concluded that every coal mining job supports 11 other jobs in a community, including truckers, railroad workers, equipment suppliers, and a

³ U.S. Energy Information Administration, Coal Mining Productivity by State and Mine Type, http://www.eia.doe.gov/cneaf/coal/page/acr/table21.html (last visited Mar.1,2010).

⁴ Coal Mining Productivity by State and Mine Type, *supra* note 2.

variety of service industry employees.⁵ Thus, applying Penn State's findings, the Obama Administration's actions will negatively impact 162,000 direct and indirect jobs in the Appalachian Region.

Furthermore, in addition to these job losses, the Obama Administration's actions are preventing job growth in the region. If the coal mining operations that are on hold were allowed to move forward, they would generate 2,992 new jobs in the Appalachian region, a 5% increase in coal mining jobs.

In a region that is suffering from an average unemployment rate of 9.4%, and a nation suffering from a 10% unemployment rate, these impacts are far from insignificant.

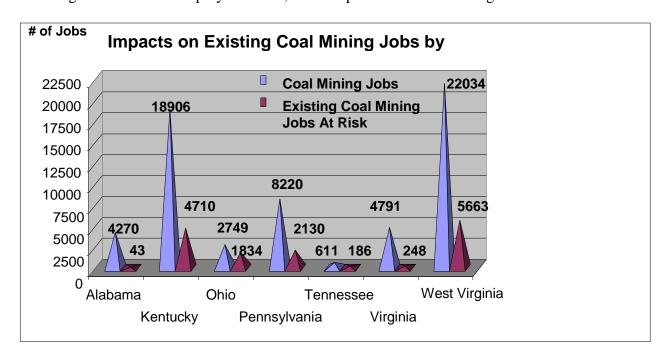


Figure 3. Impacts on existing coal mining jobs in Appalachia by state.

Negative Impacts on Rural Communities

This drastic reduction in coal production will have severe economic repercussions in rural communities. Consider the following example:

• If EPA continues to maintain its hold on Kentucky's permits, the state will lose an estimated \$127 million in tax revenue annually. In fiscal year 2008-2009, Kentucky's coal industry generated \$282 million in tax revenue for the state.

⁵ Adam Rose & Oscar Frias, *The Impact of Coal on the U.S. Economy* (The Pennsylvania State University) (1994).

⁶ Ky. Rev. Stat. Ann. § 143.020 (2010).

⁷ Ky. Rev. Stat. Ann. §§ 143.010-.100 (2010).

Fifty percent of this tax revenue goes directly back to rural communities where the coal is mined to support a number of community functions including schools, tourism, children's homes and drug prevention programs.

West Virginia also greatly benefits from coal revenue. If EPA continues to maintain its hold on West Virginia 404 permits, the state will lose an estimated \$217 million in tax revenue annually. In fiscal year 2009, the West Virginia coal industry generated \$533 million in tax revenue for the state.

W. Va. Code Ann. § 11-13A-1 to -25 (2009).
 W. Va. Code Ann. § 11-13V-1 to -17 (2009).

Two-Year Supply of Coal at Risk

The Obama EPA's hold on 190 permits for coal mining operations is preventing the production of over 2 billion tons of coal. Consider that the U.S. consumes roughly 2.2 billion tons of coal in 2 years. ¹⁰ 11 12

To put this into perspective, the Obama Administration's hold on these 404 Permits jeopardizes a 2-year supply of America's coal needs. (*Each year, coal supplies roughly 50% of America's electricity.*)

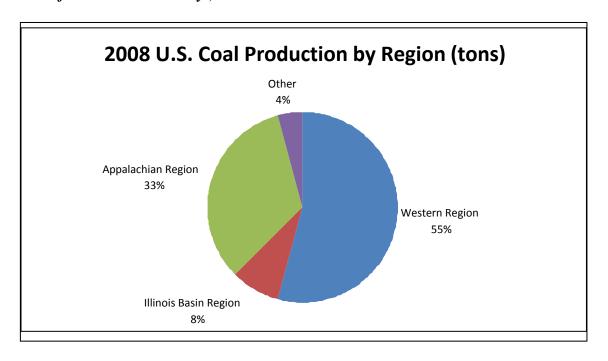


Figure 4. Total U.S. Coal Production, broken down by region.

As shown in figure 5, as a result of EPA permit holds that continue today, 43% of West Virginia's annual coal production and 46% of Kentucky's annual coal production is in jeopardy. Almost one-half of the Appalachian Region permits on hold today are in Kentucky.

¹² See Appendix A for additional information on U.S. coal consumption and production.

¹⁰ U.S. Energy Information Administration, U.S. Coal Consumption by End Use Sector, by Census Division and State, *supra* note 8.

¹¹ U.S. Coal Supply and Demand, *supra* note 9.

• In total, 41% of the entire Appalachian region's annual coal production is on hold due to EPA's actions.

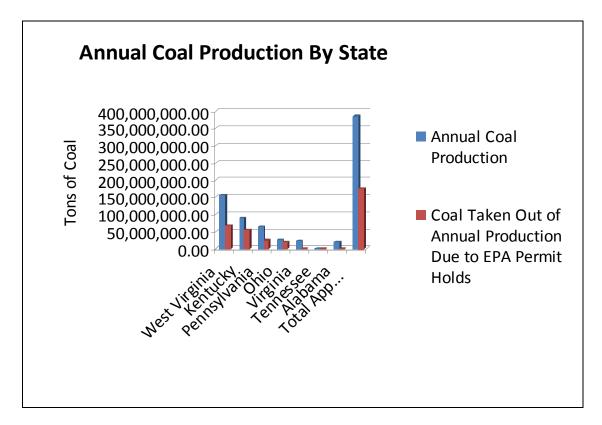


Figure 5. Annual coal production, by state, compared with annual coal production that would not be produced due to EPA permit holds.

Reduction in Reliable Energy

By preventing the production and use of a 2-year supply of America's coal needs, EPA is putting electricity reliability for consumers at risk. Coal is used to produce baseload electricity, meaning it produces electricity at a constant rate. ¹³ Many of the sources of renewable energy—such as wind and solar—promoted by the Obama Administration, as an alternative to coal cannot supply baseload energy—and thus cannot be used as a reliable energy source.

Weakening National Security

The Obama Administration's actions directly impinge on our national security. The President has clearly stated that we need to reduce our reliance on foreign sources of energy and increase our ability to produce energy domestically. Yet the Administration is taking actions to significantly reduce America's coal production.

¹³Energy Glossary, Energy Information Administration, http://www.eia.doe.gov/glossary/glossary/b.htm (last visited May 16, 2010).

Higher Energy Prices

By shutting down half of all Eastern coal production, the Obama Administration's permit obstruction could cause drastic increases in American energy prices due to decreases in supply. Additionally, because the Administration's action will shift a large portion of America's coal production to the West and the Midwest, transportation costs will rise, as coal will need to be shipped greater distances to fulfill East Coast demands for energy.

Moreover, coal mining is not an activity that can be easily turned on and off: even if the Obama Administration allows these mining operations to proceed in the coming months and years, the delays it has caused thus far are having, and will continue to have, a deleterious impact on energy production. Specifically, it's likely to take as long as 5 years for coal production in Appalachia to get back on track even if all of the permits in question are approved.

Small Businesses in Jeopardy

The Obama Administration has made jumpstarting small businesses a centerpiece of its economic recovery agenda. In a statement on October 22, 2009, President Obama claimed small businesses "fuel our prosperity," and then added, "And that is why they must be at the forefront of our recovery."

Treasury Secretary Timothy Geithner expressed a similar sentiment when he stated, "America will not recover until our small businesses recover. In communities across the country, they are the engines of job growth and lead the way to the industries of the future..."

Unfortunately, the Administration's action to block these coal mining operations in the Appalachian Region has a direct, negative impact on 81 small businesses in Appalachia, which range from startups to multi-generational family businesses. As shown in figure 6, our review of the 190 blocked coal mining operations found that only 36 permits out of the 190 were for companies that would not be classified as small businesses. ¹⁶

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¹⁴ David Cho, *Rescue efforts shift to small business*, Washington Post, Oct. 22, 2009, http://www.washingtonpost.com/wp-dyn/content/article/2009/10/21/AR2009102101703.html Cho, *supra* note 17.

¹⁶ U.S. Small Business Administration, Table of Small Business Size Standards, http://www.sba.gov/idc/groups/public/documents/sba_homepage/serv_sstd_tablepdf.pdf (last visited Mar. 1, 2010).

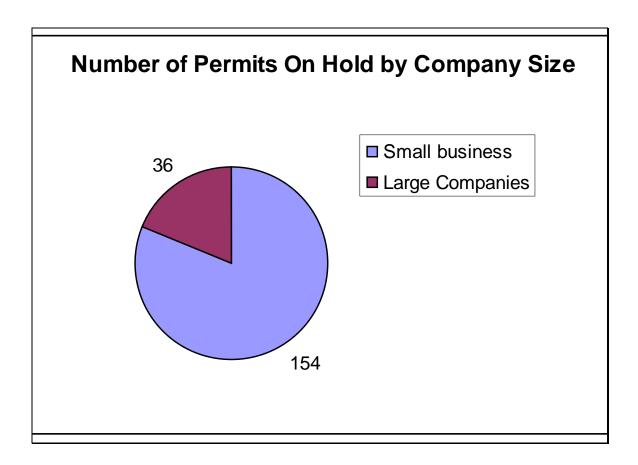


Figure 6. 404 Permits currently on hold, broken down by the size of the company holding the permit.

While large coal companies can weather economic downturns and delays in the permitting process, the small businesses that the Obama Administration are threatening often cannot. Over the course of several months as this report was developed, several small mining companies were contemplating shutting down, laying off workers, or filing for bankruptcy. *Most of these small businesses cite the inability to obtain their 404 permits as the reason for their difficulties/challenges*.

Ironically, the Obama Administration's actions actually benefit large coal companies. In some instances, the companies that hold these mining permits are on the verge of collapse. To stay afloat, they have chosen to sell their pending permits to other companies—ones that are larger and in better financial condition. So in addition to shutting down small businesses in the name of shutting down "Big Coal," the Obama Administration's actions are helping build up "Big Coal," and their dominance of the coal industry.

The Broader Agenda: Halting All Coal Mining

In addition to finding harmful impacts on Appalachian communities, jobs, and small businesses, our investigation also revealed the Obama Administration's broader agenda to drastically curtail coal mining in Appalachia.

For decades, the environmental community has politicized mountaintop mining by exaggerating its environmental impacts and stoking unfounded fear in mining communities. Our investigation shows that the Administration is exploiting this fear as a means to block *all coal mining operations* in the Appalachian region.

The Administration's public statements regarding their review of the 190 mining permits, including the June 2009 Memorandum of Understanding between the White House and several federal agencies, and a variety of press statements throughout the course of 2009, appear to address mountaintop mining only (see figure 8). The June 2009 press statement alone included 16 references to "mountaintop mining" while only mentioning "surface mining" 4 times in that same statement.¹⁷

• Our investigation found that these statements are highly misleading. As shown in figure 7, in blocking the 190 coal mining permits in Appalachia, the Administration only halted 19 actual mountaintop mining operations. The remaining 171 blocked mining operations included a range of surface, underground and refuse operations.

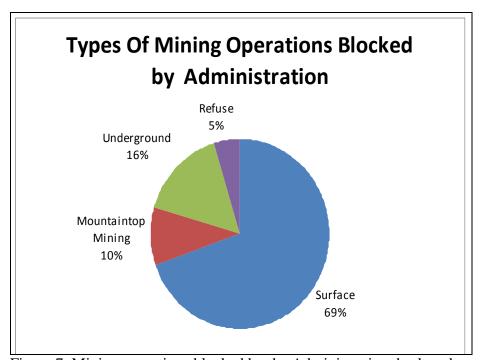


Figure 7. Mining operations blocked by the Administration, broken down by mining type.

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¹⁷ U.S. Environmental Protection Agency, Wetlands, MOU Press Release http://www.epa.gov/owow/wetlands/pdf/MTM_Release_6-11-09.pdf (last visited Mar.1,2010).

Review of Mining Permits: Where's the Transparency?

The Obama Administration has on several occasions professed support for increasing transparency and openness in the day-to-day operations of the federal government. ¹⁸ Our

investigation, however, shows that its words conflict with its actions. The following account illustrates how the Obama Administration is issuing statements regarding review of 404 coal mining permits that run counter to its claims of openness and transparency.

On February 13, 2009, the 4th Circuit Court of Appeals upheld the Army Corps of Engineers' longstanding regulatory authority over the 404 Permit process and confirmed the quality of its review of these permits. ¹⁹ Because of this pending court case, the Corps had slowed down its permit approval process and had reported a backlog of as many as 250 coal mining 404 permits in Appalachia.

Following this court ruling, on March 24th, EPA, in a letter to the Corps, expressed concerns about the environmental impacts of two coal mining operations that were awaiting 404 Permits: the Central Appalachia Mining's Big

Figure 8. Official Statements Demonstrating Obama Administration's Misleading Focus on Mountaintop Mining

In a June 11, 2009 statement, several Obama Administration officials claimed they were focusing their efforts on mountaintop mining:

"Mountaintop coal mining cannot be predicated on the assumption of minimal oversight of its environmental impacts, and its permanent degradation of water quality. Stronger reviews and protections will safeguard the health of local waters, and thousands of acres of watersheds in Appalachia," said EPA Administrator Lisa P. Jackson.

"The Army is pleased to support interagency efforts to increase environmental protection requirements and factual considerations for mountaintop coal mining activities in Appalachia," said Terrence "Rock" Salt, Acting Assistant Secretary of the Army for Civil Works. "The initiative being announced today will allow us to move forward on a number of important permit applications while providing improved certainty and transparency to permit applicants and the public."

"The steps we are taking today are a firm departure from the previous administration's approach to mountaintop coal mining," said Department of Interior Secretary Ken Salazar.

"This agreement represents federal agencies working together to take the President's message on mountaintop coal mining into action," said Nancy Sutley, Chair of the White House Council on Environmental Quality. Source:

http://www.epa.gov/owow/wetlands/pdf/MTM_Release
_6-11-09.pdf

¹⁸ Memorandum for the heads of Executive Departments and Agencies, Weekly Comp. Pres. Doc. (Mar. 1, 2010)

¹⁹ Ohio Valley Envtl. Coalition v. Aracoma Coal Co., 556 F.3d 177 (4th Cir. 2009).

Branch project in Pike County, Kentucky and the Highland Mining Company's Reylas mine in Logan County, West Virginia.²⁰

In addition to registering concerns over these two applications, in a statement issued on March 24th, EPA Administrator Lisa Jackson stated, "I have directed the EPA to review other mining permits requests." This appears to be in reference to the other roughly 250 mining permits that were awaiting Corps approval, and had been delayed due to the 4th Circuit Court Case.

Later that same day, EPA issued a somewhat contradictory statement in an attempt to clarify its previous remarks stating, "Environmental Protection Agency is not halting, holding or placing a moratorium on any of the mining permit applications. Plain and simple."

Later in that same statement, however, EPA appeared to contradict itself by claiming that it would "take a close look at other permits that have been held back because of the 4th Circuit litigation."²²

On April 3, 2009, EPA asked the Corps to halt three additional permits for the A&G Coal Corporation's Ison Rock Ridge Surface Mine in Wise County, Virginia, a Massey Energy mine in Kanawha County, West Virginia, and a Frasure Creek Mining operation in Mingo County, West Virginia.²³

On April 9th 2009, according to press accounts, EPA spokeswomen Ernesta Jones stated that in addition to the 3 rejected permits, "she could not rule out that more permits would soon be reviewed."²⁴

Due to the apparent confusion and uncertainty in the EPA's statements, and in light of EPA's actions to halt 6 mining operations and the continuing delay in the issuance of what was estimated to be roughly 200 coal mining permits, EPW Ranking Member

²⁰ Katherine Boyle, EPA Will Review Mountaintop's permitting impact on water quality, Energy and Environment News, Mar. 24, 2009, http://www.eenews.net/public/Greenwire/2009/04/09/2 (last visited Mar.1,2010).

²¹ U.S Environmental Protection Agency, Newsroom, EPA Acts to Reduce Harmful Impacts of Coal Mining, (2009),

http://yosemite.epa.gov/opa/admpress.nsf/d985312f6895893b852574ac005f1e40/bd03fe27c0c1271885257 5830062f672!OpenDocument (last visited Mar. 1, 2010).

22 U. S. Environmental Protection Agency, Newsroom, EPA Statement on Mining Permit Applications,

^{(2009),}

http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/d526015b8e11b49c85257 5840002bef7!OpenDocument (last visited Mar. 1, 2010).
²³ Eric Bontrager, *EPA puts brakes on 3 more mountaintop permits*, Energy and Environment News, Apr.

^{9, 2009, &}lt;a href="http://www.eenews.net/public/Greenwire/2009/04/09/2">http://www.eenews.net/public/Greenwire/2009/04/09/2 (last visited Mar.1,2010). ²⁴ Bontrager, *supra* note 25.

Inhofe requested information regarding the scope of EPA's permit reviews, in a letter dated April 21, 2009. 25

In response to Senator Inhofe's request, on May 6th, EPA continued to claim that "EPA is not raising concern with the majority of pending permits," but it did not reveal the actual number of permits under review. ²⁶

Finally, after detailed discussions with EPA, on May 12th, EPW Minority Staff were able to obtain a list of roughly 235 coal mining permit applications that were under review by EPA. ²⁷

On May 18th, the media and Rep. Nick Rahall (D-WV) reported that EPA had cleared 42 of the 48 mountaintop mining permits that were under review although we were unable to locate an official EPA press release. ²⁸ Interestingly, our investigation found that only 1 of the 42 issued permits were actually for mountaintop mining operations. On a later date, another 2 additional permits were issued, both of which were for mountaintop mining operations.

On June 11, 2009, the Obama Administration unveiled a Memorandum of Understanding (MOU) that it claimed was crafted primarily to address mountaintop coal mining. The MOU was facilitated by the Council on Environmental Quality (CEQ) and signed by EPA, the U.S. Department of the Interior, and the Corps. In statements regarding this MOU, the Administration claimed that 108 permits were put on hold to enable further review. ²⁹

However, more confusion reigned when on September 11, 2009, EPA announced that it would only review 79 proposed surface coal-mining projects in Appalachia, as compared with the initial 108 pending permits announced in June. "The extended reviews will be carried out under an enhanced coordination process between EPA and the Army Corps of

http://epw.senate.gov/public/index.cfm?FuseAction=Minority.PressReleases&ContentRecord_id=ca38fc25 -802a-23ad-4ee7-bb5107cd2b99&Region_id=&Issue_id= (last visited Mar.1, 2010).

http://epw.senate.gov/public/index.cfm?FuseAction=Minority.PressReleases&ContentRecord_id=31c0875 b-802a-23ad-4ff8-93b08126c85a&Region_id=&Issue_id= (last visited Mar. 1, 2010).

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²⁵ Inhofe Letter Questions EPA permit Delays on Mountaintop Mining Permits, U.S. Senate Environment and Public Works Committee, Apr. 21, 2009,

²⁶ EPA Responds to Inhofe Letter on Mountaintop Removal, U.S. Senate Environment and Public Works Committee, May 11, 2009,

²⁷ Note: EPA's initial list included 237 permits, however one permit was found to not exist and another was issued and the project was completed 10 years ago.

²⁸ Ken Ward Jr., *Coal Tattoo*, Charleston Gazette, May 15, 2009, http://blogs.wvgazette.com/coaltattoo/2009/05/15/rahall-epa-clears-42-of-48-permits-for-approval/ (last visited Mar. 1, 2009).

²⁹ U.S. Environmental Protection Agency, FAQ page, http://www.epa.gov/owow/wetlands/pdf/ECP_Q&A_09-30-09_final.pdf (last visited Mar. 1, 2010).

Engineers developed under the interagency MOU on surface coal mining facilitated by the CEQ."³⁰

Nowhere in any statements, press reports, or other accounts throughout 2009 has EPA acknowledged that it continues to block 190 coal mining permits in Appalachia. If one were to rely only on the information EPA publicly provided, one might think only 79 coal mining permit applications are being held up by EPA.

On January 20, 2010 Administrator Jackson was interviewed in an article for the magazine *Rolling Stone*. When asked about previously approved permits, she said, "In hindsight, I certainly wish we could have gone through a longer process on some of those."³¹

Even after a thorough review of press accounts and official press statements, EPA's continued contradictory statements do little but further confuse the public.

³⁰ U.S. Environmental Protection Agency, Newsroom, Preliminary Results for Surface Coal Mining Permit Reviews, Sept. 11, 2009,

 $[\]frac{\text{http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/b746876025d4d9a385257}}{62e0056be1b!OpenDocument\&Highlight=2, mining} \ (last visited Mar. 1, 2009).$

Rolling Stone, Tom Dickinson, Jan. 20, 2010, *The Eco-Warrior*, http://www.rollingstone.com/politics/story/31820267/the_ecowarrior (last visited Mar. 1, 2009).

APPENDIX A

In 2007, the United States consumed 1.1 billion tons of coal.³² Most of this coal, or roughly 1 billion tons, was used to meet nearly one-half of the nation's electricity needs.³³ The remaining amount of coal was used to produce, among other things, steel, plastics, synthetic fibers, medicines, and coke.

Today, coal is mined in 26 States. Wyoming is the leading coal producing state, followed by West Virginia, Kentucky, Pennsylvania, and Texas. A Coal is mainly found in three large regions: the Appalachian Coal Region, the Interior Coal Region, and Western Coal Region (includes the Powder River Basin) (see Figure 4). More than one-third of the coal consumed in the United States on an annual basis—an estimated 390 million tons of coal in 2008—5 comes from the Appalachian Coal Region, which includes Ohio, Alabama, Pennsylvania, Eastern Kentucky, Tennessee, Virginia and West Virginia. West Virginia is the largest coal-producing state in the region.

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http://tonto.eia.doe.gov/energyexplained/index.cfm?page=coal_where (last visited Mar. 1, 2010).

³² U.S. Energy Information Administration, U.S. Coal Consumption by End Use Sector, by Census Division and State, http://www.eia.doe.gov/cneaf/coal/page/acr/table26.html (last visited Mar. 1, 2010).

³³ U.S. Energy Information Administration, U.S. Coal Supply and Demand, http://www.eia.doe.gov/cneaf/coal/page/special/tbl3.html (last visited Mar. 1, 2010).

³⁴ U.S. Energy Information Administration, Coal Explained,

³⁵ U,S. Energy Information Administration, Coal Production and Number of Mines by State and Mine Type http://www.eia.doe.gov/cneaf/coal/page/acr/table1.html (last visited Mar. 1, 2010).

³⁶ U.S. Energy Information Administration, *supra* note 13.