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**U.S. House of Representatives**  
**Committee on Natural Resources**  
**Washington, DC 20515**

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JEFFREY DUNCAN  
DEMOCRATIC STAFF DIRECTOR

September 26, 2011

The Honorable Joseph Pizarchik  
Director  
Office of Surface Mining Reclamation and Enforcement  
Department of Interior  
1951 Constitution Avenue NW  
Washington, DC 20240

Dear Director Pizarchik,

The mountains of Appalachia possess unique biological diversity, forests, and freshwater streams that historically have sustained vibrant communities. However, I am concerned that the growing practice of mountaintop removal mining and the more recent practice of filling abandoned and active mines with coal combustion waste threaten to irreparably damage the ecology and livability of the Appalachian Region. Moreover, I am also concerned that those charged with overseeing this practice have relied on outdated and inadequate regulations that will not prevent such damage from occurring.

Over the last two decades, a surface mining technique commonly referred to as mountaintop removal (MTR) mining has become increasingly prevalent in the Appalachian region. This is mainly due to technological innovations that allowed more coal to be mined using fewer workers. In MTR mining upper elevation forests (on a mountain or summit) are cleared and stripped of topsoil and explosives are used to break apart the rocks below to access buried coal seams. The violent nature of mountaintop removal mining, and the surface disturbance it causes, often results in residual rock and soil dumped into nearby valleys (called valley fill). Under current regulations, coal companies are permitted to place this valley fill directly on top of streams, leaving behind an altered landscape in which the tops of mountains are flattened and reduced in elevation and streams are buried and at times eliminated altogether. The Environmental Protection Agency (EPA) estimates that almost 2,000 miles of headwater streams have been buried by mountaintop mining throughout the Appalachia region.<sup>1</sup> Streams once used for swimming, fishing, and drinking water have been adversely impacted, and groundwater resources used for drinking water have been contaminated or have completely disappeared. These adverse impacts are likely to further

<sup>1</sup><http://yosemite.epa.gov/opa/admpress.nsf/e77fdd4f5afd88a3852576b3005a604f/4145c96189a17239852576f8005867bd!OpenDocument>

increase as coal companies pursue even less accessible coal resources within already impacted watersheds and communities.

The Surface Mining Control and Reclamation Act (SMCRA) sets the minimum standards for surface coal mining (including MTR mining) and reclamation throughout the nation. The Office of Surface Mining Reclamation and Enforcement (OSM) is responsible for ensuring that SMCRA is carried out in a manner that will “minimize so far as practicable the adverse social, economic, and environmental effects” of surface coal mining.<sup>2</sup> SMCRA contains twenty-five statutory performance standards for environmental protection. Unfortunately, OSM has, in many cases, failed to modernize its policies and regulatory framework to ensure that all of these standards take into account the scientific data and information relating to the impacts from MTR mining. For example, OSM is still operating under a Reagan-era policy that governs the most basic requirements on coal mining in Appalachia including whether mining companies must restore impacted mountains to their original elevation and contour. Furthermore, SMCRA requires coal mining practices to minimize disturbances to the hydrologic balance for *both* surface waters and groundwater systems at and around the mine location and in offsite areas.<sup>3</sup> Yet, the substantive requirements for ground water monitoring have not been updated since 1988, despite increased evidence that toxic metals such as selenium and mercury leach into waters near MTR mining sites.<sup>4</sup> OSM has not promulgated specific standards to protect against selenium or mercury pollution, nor has your agency added selenium or mercury to the list of pollutants which coal operators must routinely monitor once operations begin.<sup>5</sup>

The failure of OSM to address these troublesome programmatic issues is particularly alarming given recent scientific studies that have documented the scale of the impacts to air and water quality, and the link between these impacts and human health problems throughout Appalachia.<sup>6</sup> Human health studies have found that there are a number of chronic diseases such as heart disease and cancer which geographically cluster around areas of mountaintop mining.<sup>7</sup> A recently published study using government data for almost 2 million birth records in the Appalachian region found, for the first time, a correlation between increased birth defects and mountaintop mining, when compared to other coal mining areas and non-mining areas.<sup>8</sup> The study demonstrates that places where land, air and water have undergone the greatest disturbance from mining are also the places where birth defect rates are the highest.

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<sup>2</sup> 30 U.S.C. § 1201(e)

<sup>3</sup> 30 U.S.C. § 1265(b)(10).

<sup>4</sup> 30 C.F.R. § 780.21

<sup>5</sup> See generally 30 C.F.R. Chapter VII, Part 700 to End.

<sup>6</sup> Palmer, MA, et al. *Science and Regulations. Mountaintop Mining Consequences*. Science: 2010 Jan 8;327(5962):148-9

<sup>7</sup> Hendryx, M and Zullig, KJ. *Higher Coronary Heart Disease and Heart Attack Morbidity in Appalachian Coal Mining Regions*. Preventative Medicine: 2009 Nov;49(5):355-9 and Hendryx, M et al. *Self-reported Cancer Rates in Two Rural areas of West Virginia with and Without Mountaintop Coal Mining*. Journal of Community Health: 2011 Jul 24.

<sup>8</sup> Ahern, MM, et al. *The Association between Mountaintop Mining and Birth Defects among Live Births in Central Appalachia, 1996-2003*. Environmental Research: 2011 Aug;111(6):838-46.

Furthermore, the coal-mine craters and mine shafts throughout Appalachia have become one of the preferred disposal locations of Coal Combustion Waste (CCW), which is the leftover material from burning coal in power plants. CCW is highly toxic and can have dangerous human health consequences if it re-enters the environment. CCW is the second largest industrial waste stream in the United States and dumping it into mines is especially dangerous because mining often creates conditions that allow for more rapid contamination of groundwater. In the unique geological characteristics of mines, the toxic constituents of CCW, including arsenic, hexavalent chromium, lead and selenium can infiltrate layers of earth to pollute streams and can seep directly into the water table, easily migrating to drinking water supplies, posing a serious public health hazard. Despite this, OSM has not modernized its ground water monitoring regime for CCW since 1983.<sup>9</sup> There is also the potential for humans to be exposed to coal combustion waste dust through inhalation. These toxic constituents can result in a number of health effects in humans, including neurological damage, cancer, and reproductive failure, as well as widespread ecosystem damage.

On January 31, 2011, OSM published revisions to its Directive REG-8,<sup>10</sup> which governs the oversight of state coal mining programs under SMCRA. While I am encouraged that OSM is beginning to address some of its chronic deficiencies in protecting the environment and public health, there are still many areas that OSM does not appear to be addressing. Accordingly, as Ranking Member of the Natural Resources Committee, I request additional information about how OSM is addressing mountaintop mining and mine-filling operations under your jurisdiction. Accordingly, I request that you respond to the following questions and provide supporting documents and other relevant information by close of business on Friday, October 14, 2011.

1. Under SMCRA, the OSM is required to promulgate nationwide regulations for the states to follow in their implementation of the environmental protection standards set forth in the Act. Despite this clear mandate, the OSM has never set forth a nationwide standard to “protect offsite areas from slides or damage occurring during the surface coal mining and reclamation operations.”<sup>11</sup> MTR mining continues to generate offsite significant impacts to the air from coal dust, and to the water from selenium and other pollutants. Given OSM’s clear authority to set standards for offsite impacts, will OSM commit to reviewing the need to implement nationwide standards on offsite impacts? If so, when will OSM begin this process? If not, why not?
2. SMCRA requires that mine operations restore lands to their approximate original contour (AOC). However, under current policy, returning land to AOC does not mean land must be returned to its pre-mining elevation. As a result, when companies reclaim MTR sites, the mountains are often left hundreds of feet lower than their original elevation, leading companies to use the excess spoil in valley fills. On October 21, 2009, OSM identified the AOC requirement as one of its national priority review topics for oversight in 2010. Why did OSM identify this AOC requirement as a national priority? Please provide documentation that describes the stems taken by

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<sup>9</sup> 30 C.F.R. §§ 816.41(i) and 817.41(h)

<sup>10</sup> <http://www.osmre.gov/guidance/directives/directive967nc.pdf>

<sup>11</sup> 30 U.S.C. § 1265(b)(21)

OSM to revise its AOC requirements and a description of where the process now stands.

3. In the final joint memorandum entitled Improving EPA Review of Appalachian Surface Coal Mining Operations under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive, the EPA expressed its concerns that “discharges associated with Appalachian surface coal mining operations may cause high conductivity of selenium levels in streams.”<sup>12</sup> Additionally, EPA has identified elevated levels of conductivity (a measure of the salinity and indicator of water quality) associated with sulfates and carbonates liberated from disturbed strata in fills and mined areas as a significant source of damage to headwater streams. Given the potential impacts to ground water and the OSM’s unique responsibility to protect ground water, how does the agency plan on addressing ground water impacts from MTR mining and mine-filling, especially contamination with heavy metals like selenium? What steps is OSM proposing to take to reduce infiltration of rainfall and groundwater into disturbed areas, in order to minimize leaching of sulfates and carbonates and resulting increases in conductivity? Specifically, will OSM require use of compacted, constructed fills and eliminate end- and wing-dumped filling?
4. On August 8, 2011, the DOI joined other federal agencies to sign the “Memorandum of Understanding on Environmental Justice and Executive Order 12898.” This agreement advances agency responsibilities outlined in the 1994 Executive Order 12898 to develop strategies to protect the health of people living in communities overburdened by pollution. Given studies that have demonstrated geographically localized health impacts around areas of mountaintop mining, such as increased chronic disease and birth defects, how will OSM require modification to state SMCRA programs where large-scale mining operations exist to avoid disproportionate impacts to local communities and to meet obligations under Executive Order 12898?
5. On May 27, 2011, the EPA's Office of Research and Development finalized two scientific documents related to mountaintop removal mining: "A Field-based Aquatic Life Benchmark for Conductivity in Central Appalachian Streams" and "The Effects of Mountaintop Mines and Valley Fills on Aquatic Ecosystems of the Central Appalachian Coalfields." Among other things, these reports describe the negative impacts that increased conductivity and total dissolved solids have on aquatic life near surface mines. How will OSM take into account this new scientific information as it develops its stream protection rule, and other rules under SMCRA such as groundwater protection and monitoring regulations?
6. There are several CCW storage and disposal sites that have been remediated or are currently being investigated or remediated under EPA’s Superfund program, including several sites on the National Priority List, EPA’s list of the most contaminated Superfund sites.<sup>13</sup> This program was established to provide broad federal authority to

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<sup>12</sup>[http://water.epa.gov/lawsregs/guidance/wetlands/upload/Final\\_Appalachian\\_Mining\\_Guidance\\_072111.pdf](http://water.epa.gov/lawsregs/guidance/wetlands/upload/Final_Appalachian_Mining_Guidance_072111.pdf)

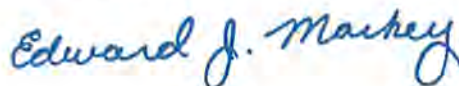
<sup>13</sup> U.S. EPA. Disposal of Coal Combustion Residuals from Electric Utilities; Proposed Rule, 75 Fed. Reg. 35128 at 35231 (June 21, 2010).

respond directly to releases of hazardous substances that may endanger public health or the environment. This strongly suggests there could be problems in the future with underground disposal of CCW. However, EPA does not have a regulatory role related to the disposal of CCW in mines that authority is left solely to OSM. What actions are OSM taking to ensure that placement of coal ash in mine-fill operations is adequately controlled? Please provide documentation that describes the purpose, size, and location of coal combustion waste mine-filling sites, not limited to mountaintop removal mines. Have any states promulgated rules for the management of CCW mine-fill? If so, please provide details of these rules on a state by state basis.

7. EPA's "Human Health and Ecological Risk Assessment of Coal Combustion Wastes" (September 2009) concluded that disposal sites where CCW was co-disposed with acidic coal refuse posed the highest risk of contaminating underlying groundwater with toxic levels of heavy metals, including arsenic and selenium. What steps is OSM taking to reduce this risk of placement of CCW into mines that contain acidic coal waste and acid mine drainage?
8. In certain states, it has become common practice for coal companies to backhaul and dispose of coal combustion wastes in mine voids and mining pits. Such locations offer a particularly inappropriate disposal option given the ability of CCW to contaminate water sources. The National Academy of Sciences (NAS) reviewed the disposal of coal combustion wastes at mines and made a number of recommendations regarding the development of a regulatory framework to limit such practices. What is the status of OSM activity relative to the regulation of co-disposal of coal combustion wastes in mined areas and voids? Does OSM plan on incorporating NAS recommendations into its regulatory framework governing this practice? If not, why not?

Thank you for your assistance and cooperation in responding to this request. Should you have any questions, please have your staff contact Dr. Avenel Joseph at 202-225-2836, Mr. Brett Hartl or Mr. Reece Rushing at 202-225-6065 of the Natural Resources Committee's Democratic staff.

Sincerely,



Edward J. Markey  
Ranking Member  
Committee on Natural Resources