

General  
&



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

**State of Utah**  
**DEPARTMENT OF NATURAL RESOURCES**  
**Division of Oil, Gas & Mining**

MICHAEL R. STYLER  
Executive Director

JOHN R. BAZA  
Division Director

June 3, 2010

Mr. John Black  
P.O. Box 753  
Gunnison, Utah 84634

Dear Mr. Black:

Enclosed is a copy of the Division of Oil, Gas & Mining's Comments on OSM Notice of Intent to Prepare an Environmental Impact Statement to Analyze Effects of Potential Rule Revisions under SMCRA for Protection of Streams as per your request.

Please contact the Dana Dean at (801) 538-5320 or Daron Haddock at (801) 538-5325 if you have any further concerns.

Sincerely,

Suzanne Steab  
Office Specialist

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MICHAEL R. STYLER  
*Executive Director*

JOHN R. BAZA  
*Division Director*

*Intelligence*  
*Q*

June 1, 2010

Joseph Pizarchik, Director  
Office of Surface Mining  
Administrative Record  
Room 252-SIB  
1951 Constitution Avenue, NW  
Washington, DC 20240

Subject: Comments on OSM Notice of Intent to Prepare an Environmental Impact Statement to Analyze Effects of Potential Rule Revisions under SMCRA for Protection of Streams

Dear Director Pizarchik:

By this letter we are providing the Office of Surface Mining Reclamation and Enforcement (OSM) comments from the Utah Coal Regulatory Program at the Division of Oil, Gas and Mining (the Division) on the Notice of Intent by OSM to prepare an Environmental Impact Statement to analyze effects of potential rule revisions under the Surface Mining Control and Reclamation Act (SMCRA) for protection of streams (published April 30, 2010 in the Federal Register at 75 FR 22723). The mission of the Utah Coal Regulatory Program is to regulate exploration for, and development of, coal in the State of Utah in a manner that supports the existence of a viable coal mining industry to meet the nation's energy needs; implements standards that safeguard the environment and protect public health and safety; and achieves the successful reclamation of land affected by coal mining activities.

The Division is providing comments independently to reflect concerns relevant specifically to the Utah Coal Regulatory Program, and because we may have a slightly different view on some of the comments being submitted by other states or lobbying groups. Furthermore, as the scope of rule revisions being contemplated by OSM would necessitate revisions to Utah Coal Mining Rules (UAC R645), we desire to identify for OSM our concerns and hopeful outcomes of this rule revision.

Provided below are some general comments related to the rule revision. These are followed by comments specific to principal elements of the Proposed Action as identified in the April 30, 2010 Notice.

General Comments

- Many of the elements OSM plans to address in the proposed action have been problematic for the Division to regulate. The lack of definitions and specificity in the

rules has left the door open for the Division to be challenged on our permit findings. These challenges are brought before the Utah Board of Oil, Gas and Mining (the Board), which is the policy making body for the Division. Challenges to mining permits before the Board have become increasingly more complicated and difficult to resolve, as plaintiffs have contested adequacy of baseline hydrologic data, cumulative hydrologic impact assessments, and material damage criteria. The Division therefore feels that OSM's endeavor to clarify requirements for permitting hydrology is timely and will help ensure consistency and transparency in our regulatory program.

- The Division recognizes that the scope of the Proposed Action represents a tremendous undertaking by OSM. The Proposed Action will certainly result in meaningful discussion between stakeholders and technical review of stream protection practices, monitoring and scenarios. In the event that not all elements of the Proposed Action are included in the rule revisions, the Division encourages OSM to consider providing guidance in an alternative format, such as through official guidance documents or reports. An alternative format may afford OSM latitude to examine regional hydrologic / geologic / biologic conditions, provide examples, and cite references in greater detail than possible with rule revision alone.

#### Comments on the Specific Principal Elements of the Proposed Action

*Bullet 1. Adding more extensive and more specific permit application requirements concerning baseline data on hydrology, geology, and aquatic biology; the determination of the probable hydrologic consequences of mining; and the hydrologic reclamation plan; as well as more specific requirements for the cumulative hydrologic impact assessment.*

- Surface water and groundwater hydrology in the coal resource areas of Utah differs greatly from Appalachia; therefore some requirements are not easily applied, relevant or possible to assess for mine operators in Utah. For example, typical ground water systems located in the coal fields of Utah are small, isolated/perched systems; not regional or even local contiguous aquifers. In order for a mine operator to thoroughly characterize each of these small, perched systems (i.e. install 3 monitoring wells for each), access to remote, rugged, roadless and high elevation sites would be required. In many instances, strict enforcement of the baseline requirements for ground water characterization of each small, perched system would prove cost prohibitive for many proposed coal-mining operations, while doing little to protect and enhance the hydrologic balance.
- Characterizing ephemeral streams, which flow only in response to snowmelt/precipitation events, has also been problematic. As a result of Utah's semi-arid climate, extensive networks of ephemeral drainages are often times located within a proposed permit and associated adjacent area. In the past, challenges have been raised relative to the

characterization of ephemeral drainages. Further defined OSM guidance/standards as to the baseline requirements for such drainages, and more accurate definitions for intermittent and ephemeral streams as applied in the west would be very beneficial for the State of Utah Coal Regulatory Program.

- Current requirements for the CHIA lack specificity, which has contributed to the litigious resistance to permit approval. Recently, the Division has been challenged regarding which parameters require material damage criteria to be established, how material damage will be evaluated, and the amount of baseline data necessary to characterize a hydrologic system. Additional comments pertaining to these CHIA components are provided for Bullet Numbers 2, 4 and 5.
- Perhaps CHIA guidance may be provided by alternate means, such as an OSM "Guidance Document" which would have latitude to examine regional hydrologic / geologic / biologic conditions, provide examples, and cite references in greater detail and in an alternative format to rules.

*Bullet 2. Defining the term "material damage to the hydrologic balance outside the permit area." This term is critically important because, under section 510(b)(3) of SMCRA, the regulatory authority may not approve a permit application unless the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. This term includes streams downstream of the mining operation.*

- Defining the term "material damage" may help ensure consistency in permit application review and could reduce litigation associated with new mining permits. However, it may be better to allow states to decide what constitutes material damage on a case-by-case basis. It may be preferable to receive guidance from OSM on what may be considered or not considered to be material damage rather than have this term specifically defined in the SMCRA rules.
- Establishing a definition for "material damage" would be technically challenging and would need to consider regional hydrologic conditions, statistical methods to address measurement uncertainty, weather and climate effects.
- Currently, 'Material damage' is defined solely within the context of subsidence and subsidence control (30 CFR Ch. VII 784.20 and 817.121). The definition does not take into account adverse impacts to hydrologic resources from first mining operations (i.e. no planned subsidence). For example, aquifers that supply groundwater to springs can be dewatered and groundwater flow directions can be altered by underground mining without subsidence ever occurring.

Hydrologic resources are relatively scarce within the coal fields of Utah. In addition, all waters are currently appropriated to various water users through the State of Utah

Division of Water Rights. Therefore, any mining-induced detrimental impacts to these resources, subsidence related or not, can be very serious and contentious. There are instances in Utah where a single spring is the primary domestic water source for an entire community. In light of these considerations, revisions to the definition of 'material damage' should take into account non-subsidence related impacts to hydrologic resources.

- Material damage criteria established in a Division CHIA has been challenged recently. The challenge contended that numeric material damage criteria are required for every monitoring parameter, which is not consistent with the approach the Division has used to date.
- OSM should consider developing guidance documents that provide a procedure for evaluating whether material damage is occurring. The guidance should identify methods (e.g., decision trees, statistical tests, "rules of thumb") to assess material damage and perhaps compile, as a reference, how other state programs have made findings. Note that this is a separate issue from identifying material damage parameters and assigning numeric criteria to measure impacts that are well-defined in the CHIA guidance document.

Example: The issue of precisely how to determine that material damage is occurring was raised during a permit challenge for a surface mine in Southern Utah. A conservation group's attorney challenged the material damage criterion for total dissolved solids (TDS) in surface water established by the Division in the CHIA, and how this material damage criteria would be applied. The CHIA established a material damage criterion of 3,000 mg/L for TDS; however, the water quality standard for the receiving stream is 1,200 mg/L. Setting the material damage criterion equal to the water quality standard was not practical because greater than five years of baseline data have demonstrated that TDS concentrations in the receiving stream often exceeded the water quality standard. Even the 3000 mg/L standard might be inappropriate as the limit considering the natural system.

As operational surface water monitoring is performed, it is probable that measured TDS concentrations will exceed the material damage criterion. The Division would appreciate some guidance provided by OSM on how to assess when material damage has occurred. Methods may include the evaluation of statistical trends once concentrations cross a material damage threshold, or statistical tests performed at a given confidence interval. The assessment protocol should account for the role of weather conditions, as flash-flooding events may result in elevated concentrations of TDS, even without mining disturbance. Given the extreme natural variability of hydrologic systems in

Utah coal fields, it seems unrealistic to determine that material damage has occurred after one sample exceeds the criterion established in the CHIA. Just because water quality has hit a certain numeric limit doesn't necessarily mean that material damage has occurred. It is probably a good indicator, but there are many other factors to consider. A finding of Material Damage needs to be associated with impairment of use.

- The regulations are noticeably vague when it comes to what happens after a Material Damage finding is issued. OSM should consider clarifying what the consequences are for a permittee once a finding of Material Damage is made. SMCRA is also unclear as to what direction/actions should be taken following a finding of Material Damage, and OSM clarification on such matters would be useful.

Example: One of our mining operations subsided an area as a result of longwall mining. The subsidence resulted in cracks in the bedrock formation, which lowered the water table in an area and caused several springs to stop flowing. The US Forest Service is the land management agency of this area and has expressed concern over the springs drying and the possible loss of riparian habitat. The affected springs were historically used for livestock watering, and the loss of the springs may negatively affect the Animal Management Use status of the area. The US Forest Service is looking to the Division as the regulatory agency to impose some sort of sanction or penalty to the mine operator. The mine operator has proposed several plans to fix the problem, none of which have shown promise to date. The problem the Division faces is that there is no provision for enforcement under the material damage finding.

*Bullet 3. Revising the regulations governing mining activities in or near streams, including mining through streams.*

- OSM should take into account the natural differences between ephemeral, intermittent, and perennial streams when considering these revisions. Requirements should be related to the use and function of the stream.

*Bullet 4. Adding more extensive and more specific monitoring requirements for surface water, groundwater, and aquatic biota during mining and reclamation.*

- Additional OSM guidance on monitoring, outlining the manner, methods, frequency and reporting requirements for mining under hydrologic resources would be beneficial to the State of Utah Coal Regulatory Program. As discussed above, the relative scarcity of hydrologic resources within the coal fields of Utah heightens the concern of an array of

stakeholders when a mining operation proposes the full-extraction of coal from below a perennial stream, culinary water source, etc. In the past, the State of Utah Coal Regulatory Program has required additional subsidence and water monitoring prior to undermining a hydrologic resource, during the mining as well as after. However, the coal mine operators have voiced concern that such additional monitoring requirements are burdensome.

- The Division encourages OSM to consider different or more flexible monitoring requirements for ephemeral, intermittent and perennial streams and for “perched” versus “regional” aquifers. Generic, global monitoring requirements may not be practicable or relevant for hydrologic regimes in Utah coal fields. Alternatively, requirements could be developed based on region or climate. As discussed in our General Comments above, perhaps guidance may be provided by an alternate means, such as an official OSM report or guidance document which would have latitude to examine regional hydrologic / geologic / biologic conditions, provide examples, and cite references in greater detail and in an alternative format to rules.

*Bullet 5. Establishing corrective action thresholds based on monitoring results.*

- 30 CFR 780.21 (and Utah Coal Mining Rules R645-301-731.211 and R645-301-731.222) include requirements that a permit describe how monitoring data “may be used to determine the impacts of the operation on the hydrologic balance”. No method is specified for making this determination. As commented previously for “material damage”, OSM should consider developing guidance providing a procedure for evaluating whether “impacts” are occurring. The guidance should identify methods such as decision trees, statistical tests, “rules of thumb” or other methods to help ensure consistency in enforcement of SMCRA.
- The development of numeric thresholds would reduce the uncertainty associated with implementing the rules.

*Bullet 7. Limiting variances and exceptions from approximate original contour restoration requirements.*

- Rather than wholesale limiting of variances and exceptions, these issues should be evaluated on a case-by-case basis. There are certain circumstances where variances may be appropriate particularly when dealing with pre-SMCRA mine sites.

*Bullet 8. Requiring reforestation of previously wooded areas.*

- The effects of this proposed rule change on the Utah program would depend on how OSM defines "wooded area". Potential concerns in Utah include how this would affect the specific seed/shrub mixture and success standards for wooded areas, and the potential lengthening of the responsibility period for a revegetated wooded area. OSM needs to provide more information in order for the Division to assess the potential impacts of this element on the Utah program; however, it appears that the reforestation requirement would not be applicable for most Utah mines because the mine permit areas rarely contain wooded areas.
- The Division is concerned about what effect the proposed rule change would have on the postmining land use regulations.

*Bullet 10. Codifying the financial assurance provisions of OSM's March 31, 1997, policy statement 2 on correcting, preventing, and controlling acid/toxic mine drainage and clarifying that those provisions apply to all long-term discharges of pollutants, not just pollutants for which effluent limitations exist.*

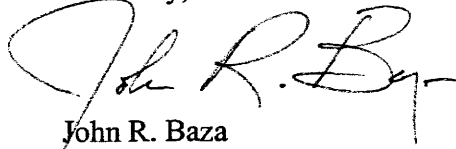
- Until recently, long-term discharges of pollutants from underground coal mines were considered unlikely to occur in Utah. Recently, a mine began discharging water, which exceeds UPDES effluent limitations for iron, and the discharge resulted in violations and fines from the Utah Division of Water Quality and violations from the Division. The Operator has constructed a water treatment system to remove iron from the mine discharge; however, they have not posted additional bond for the operation of the treatment system. The Division is now attempting to secure additional bonding to cover potential long-term/in perpetuity operation of the treatment system following reclamation. Another nearby mine has now approached the Division indicating that they will also have a long-term discharge from their mine, which may require treatment to remove iron.
- The Utah Coal Rules do not specifically include provisions for financial assurance to provide for long-term treatment of mine water discharges. "Reclamation" refers to land but does not include water under the rules. A specific provision would be beneficial for the State of Utah Coal Regulatory Program.



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Director Pizarchik  
June 1, 2010

Thank you for the opportunity to provide comments on the rule revision process. We look forward to working with OSM in this endeavor. Please contact Dana Dean at 801-538-5320 if you have any questions regarding these comments.

Sincerely,



John R. Baza  
Director

JRB/DD/sqs

cc: John Whitehead, Utah DWQ  
Jim Fulton, OSM Western Region  
Paul Clark, OSM Western Region  
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