



STATE OF  
COLORADO

Musick - DNR, Jason <jason.musick@state.co.us>

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## Fwd: Comments on Bowie No. 2 Coal Mine (Permit No. C-1996-083), Technical Revision No. 110 (TR-110)

1 message

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**Brannon - DNR, Ginny** <ginny.brannon@state.co.us>

Mon, Dec 12, 2016 at 12:36 PM

To: Jason Musick - DNR <jason.musick@state.co.us>, Mike Boulay - DNR <mike.boulay@state.co.us>

Ginny Brannon  
Division Director



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----- Forwarded message -----

From: **Jim Ramey** <jim\_ramey@twos.org>

Date: Mon, Dec 12, 2016 at 12:32 PM

Subject: Comments on Bowie No. 2 Coal Mine (Permit No. C-1996-083), Technical Revision No. 110 (TR-110)

To: "Ginny.brannon@state.co.us" <Ginny.brannon@state.co.us>

Cc: Warren King <warren\_king@twos.org>

Dear Director Brannon,

Please see attached for comments on behalf of The Wilderness Society on Bowie's coal gasification proposal.

Best regards,

Jim

**Jim Ramey**

Outreach Coordinator, Energy & Climate

**The Wilderness Society**

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**CDRMS\_Bowie Coal Gassification Proposal Comments.FINAL.pdf**

141K



December 8, 2016

Ginny Brannon, Director  
Colorado Division of Reclamation Mining and Safety  
1313 Sherman St., Room 215  
Denver, CO 80203  
[Ginny.brannon@state.co.us](mailto:Ginny.brannon@state.co.us)

Re: Comments on Bowie No. 2 Coal Mine (Permit No. C-1996-083), Technical Revision No. 110 (TR-110)

Dear Director Brannon:

On behalf of The Wilderness Society please accept and fully consider these comments regarding Technical Revision No. 110 submitted by J.E. Stover & Associates, Inc. on behalf of Bowie Resources, LLC, Bowie No. 2 Mine ("Bowie"). The technical revision requests the Division of Reclamation Mining and Safety ("Division") revise Bowie's existing permit to allow for the construction of a "DAXIOM" coal gasification plant.

The Wilderness Society ("TWS") is America's leading public lands conservation organization. Since 1935, TWS has been dedicated to protecting America's wild places for current and future generations. We are also committed to the principal that, where coal development occurs on our public lands, it is carried out in a manner that recognizes that it is one, exclusive use of the public lands that must be balanced with other multiple uses and that conservation should be considered on equal ground with any coal development.

TWS believes that the information provided in the application submitted by Bowie is insufficient for the Division to make an informed decision regarding the request for a technical revision. Additionally, given the surface and mineral interests that make up the Bowie No. 2 Mine and the potential implications for our federal lands, we encourage the Division to confer with the Bureau of Land Management (BLM) regarding the pending application. Specific comments follow.

1. Federal surface and subsurface mineral interests necessitate consultation with the BLM.

According to the application, the Bowie No. 2 Mine consists of roughly 11,000 acres of land with mixed private and federal surface and subsurface acreage. From the application, it appears that surface acreage is split roughly 50-50, while federal acreage accounts for over 80% of the subsurface estate. The mine itself is made up of multiple leases, including two federal leases: COC-37210 (5,274 acres) and COC-61209 (4,196 acres). Because of the majority federal interest in the mine's surface and subsurface estate, as well as the presence of the two existing federal coal leases, any action proposed in the technical revision has the potential to impact federal lands and potentially conflict with the existing federal lease terms. Additionally, the proposed action by Bowie could very well necessitate a revision of

one or both federal leases. Due to the potential impact to federal resources, we urge the Division consult with the BLM regarding the request before making any decision.

2. Federal royalty implications must be addressed.

Bowie is proposing to convert existing coal mine waste into synthetic gas which will then be used to generate electricity or diesel/fuel oil. More specifically, the proposal indicates Bowie intends to pull fuel for the gasification system from two existing waste stockpiles—the “run-of-mine” coal and the “stoker coal”—which will be combined, crushed, and then prepared for use. Given the majority federal coal interest at the mine, there is little doubt that much of the coal that will be used is federal. This raises the question of whether and how royalties need to be assessed on that product. Pursuant to Mineral Leasing Act the royalty rate for federal coal extracted from surface mines is set at no less than 12.5% and at 8% for underground mines<sup>1</sup>. Additionally, royalties are assessed at the first point of sale of the coal after it is removed from the ground as a percentage of the revenues at the sale price. In this case, and based on the lack of information provided in Bowie’s application, it is impossible to determine where the point of sale lies and therefore, what royalty is appropriate for the coal used. Being a federal, and therefore publicly-owned resource, before moving forward, the BLM and the Bowie need to determine the appropriate royalty to ensure American taxpayers are receiving their fair share for the development of those public resources<sup>2</sup>.

3. Carbon capture and climate implications have not been addressed.

One of the features of the closed-loop DAXIOM gasification system touted by Bowie in its application is the minimal pollution generated as a byproduct of the process. In fact, Bowie notes that the emissions associated with the unit are comprised primarily of CO<sub>2</sub>. While CO<sub>2</sub> emissions, especially in the amounts projected by Bowie are largely unregulated at present, they will nonetheless contribute to atmospheric greenhouses concentrations and climate change. The potential climate impacts must be assessed. While this burden does not fall on the State of Colorado, the BLM has been instructed through Executive Order (E.O. 13524, E.O. 13693), as well as Secretarial Order (S.O. 3289, S.O. 3226) and case law, to assess the potential climate impacts of federal actions. Again, this necessitates the consultation with BLM regarding the application for technical revision.

A hasty scan of the U. S. Department of Energy, National Energy Technology Laboratory's Gasification Plant Database reveals that a large number of proposed and currently operating gasification plants throughout the world are equipped with carbon capture technology capable of reducing CO<sub>2</sub> emissions by up to 95%. According to DOE, “Another advantage of gasification-based energy systems is that when oxygen is used in the gasifier (rather than air), the carbon dioxide produced by the process is in a concentrated gas stream, making it easier and less expensive to separate and capture. Once the carbon dioxide is captured, it can be sequestered - that is, prevented from escaping to the atmosphere, where it could otherwise potentially contribute to the ‘greenhouse effect.’” Despite the widespread use of such technology, Bowie’s proposal does not appear to include a similar process. We believe both the Division and BLM should assess the potential costs and benefits of requiring carbon capture technology if the proposal is considered in detail.

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<sup>1</sup> Bowie may have requested a royalty-rate reduction in which case coal sold from the mine is likely subject to the reduced 5.5% royalty rate.

<sup>2</sup> Waste piles are still subject to federal royalties pursuant to 30 CFR 1206.253(c)

#### 4. A more involved public process is needed.

The most notable feature of Bowie's application is its lack of information. Coal gasification systems like the one proposed here have rarely been constructed in the United States. In fact, it appears that only two similar facilities are in operation anywhere in the country: in Mississippi and Indiana. Additionally, no literature, scientific studies or even rudimentary information on the "experimental" "patent-pending" DAXIOM technology described in the application or on the parent company El Camino Duro Investments, Ltd. is available. This lack of data supporting the assertion that this system will operate in the way it is described makes it impossible for the Division to assess Bowie's proposal. On top of that, the BLM and the Division have little if any experience permitting such a project and have no established processes or procedures for assessing the viability or the impacts of the proposal. A glaring lack of information along with a deficient process for evaluating the project leads to the undeniable conclusion that additional time and information is needed to adequately review Bowie's request.

If federal and state agencies are unable to understand and evaluate Bowie's proposal, it is likely that the public – which will be most impacted by the project – will not be able to provide meaningful input. The state should extend the deadline for comment and hold a public hearing to engage the local community.

#### 5. Community Economic Considerations

The economies of Delta County, and specifically the North Fork Valley, have experienced a dramatic shift in recent years. Numerous factors, including declining demand for coal domestically, a larger market-based shift away from coal to natural gas and renewable energy, and the fire at the Elk Creek mine, have resulted in the closure of multiple local mines. The closures have led to a loss of high-paying jobs and significant budgetary shortfalls at the local government level. The North Fork Valley community, and Delta County more broadly, have both worked proactively toward a more diverse and sustainable economy, which is necessary to maintain the community's quality of life. This means becoming less dependent on volatile extractive industries. Despite these proactive efforts, the potential of a revitalized coal industry has appeal and Bowie's proposal has caught the attention of many local decision makers who have touted the potential economic benefits.

However, this proposal is not likely to deliver the jobs and economic benefits many believe it might. As Bowie notes in its application, "The DAXIOM itself requires few employees to operate the plant..." and "The Plant operates at atmospheric pressure, eliminating the need for personnel specially trained...". Additionally, as proposed, the system will be used to process existing mine waste and will not result in additional mining. Realistically, few jobs will be created, those jobs would not require specialized training, and therefore any new jobs will likely be much lower-paying than an average mining job. This information must be presented to the public so it can adequately and rationally assess the advantages and disadvantages of permitting such an operation.

Lastly, if Bowie and the local community are truly interested in repurposing the mine, creating jobs and turning a profit, better solutions exist. The capture and sale of coal mine methane and/or electricity generated from the use of coal mine methane has proven to be both profitable and beneficial for the environment. We believe that the public would be better served if Bowie assessed the viability of a proven technology rather than risk the community's natural resources.

#### 6. Conclusion

This proposal raises many questions that are beyond the scope of review by DRMS. We hope you will defer making any decisions on this application until the proposal has been reviewed and acted on by the BLM, other agencies with relevant jurisdiction, and the community. Thank you for consideration of our comments. We look forward to working with the Division and the federal land management agencies, and the community as this process moves forward.

Sincerely,

Warren King  
Energy Specialist