

STATE OF
COLORADO

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Proposed Coal Gasification Plant in Colorado's North Fork Valley

1 message

Jeremy Nichols <jnichols@wildearthguardians.org>

Fri, Dec 9, 2016 at 1:30 AM

To: Ginny.brannon@state.co.us

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Dear Director Brannon:

Attached, please find comments and a request for public hearing regarding Bowie Resources, LLC's request for a permit revision to construct a coal gasification plant at the site of the company's Bowie No. 2 mine in Delta County, Colorado. The proposal has significant implications for federal coal and land management in the area, as well as for air, water, and waste management. Please contact the signatories to the letter with any follow up questions or concerns that you might have. Thank you.

Sincerely,

Jeremy Nichols

**2016-12-8 Bowie Coal Mine Permit Revision Comments.pdf**

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Ginny Brannon, Director
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Re: Objection to Bowie No. 2 Coal Mine (Permit No. C-1996-083), Technical Revision No. 110 (TR-110), Installation of unprecedented coal gasification plant within the permit area

Dear Director Brannon:

We, the undersigned, are writing to convey our objections to the Colorado Division of Reclamation Mining and Safety's ("DRMS's") proposal to approve Technical Revision No. 110 to the mine permit for the Bowie No. 2 coal mine, Permit No. C-1996-083. Below, we also present a request for a public hearing, pursuant to the November 30, 2016 notice published in the Delta County Independent.

For the following reasons, there is no basis for DRMS to approve the revision as proposed by Bowie Resources, LLC and we object to DRMS's proposed approval. Further, because the proposal would represent a significant change to Bowie's operations, the current proposal meets the definition of a Permit Revision, which must undergo more robust review and public involvement.

Bowie's proposal is to construct a coal gasification facility on its Bowie No. 2 coal mine site. As stated in the company's application, the facility, known as a "DAXIOM Plant," "will be used to convert coal mine waste to synthetic gas which is then used either to generate electrical power or diesel/fuel oil." In essence, Bowie is proposing to construct what amounts to an oil refinery and possibly a new power plant. This facility is both unprecedented (we are unaware that anything like it has been approved anywhere in the state in the last few decades) and poorly described and understood (the "DAXIOM" process appears to be in use nowhere in the world; not a trace of it could be found on the internet). It would represent a major new and intrusive industrial development in Colorado's North Fork Valley. Such a facility would represent a dramatic change within Bowie's permit boundary, potentially turning a coal mining operation into a hydrocarbon refinery facility. Such an operation could pose significant impacts to fish and wildlife, water quality, air quality, climate, the natural integrity of the region, and the socio-economic fabric of the North Fork Valley.

Copied on this letter are the U.S. Office of Surface Mining Reclamation and Enforcement ("OSMRE"), Bureau of Land Management ("BLM"), the U.S. Forest Service ("USFS"), Colorado Air Pollution Control Division ("APCD"), the Colorado Water Quality Control Division, the Colorado Hazardous Materials and Waste Division, and the Environmental Protection Agency ("EPA"). As it stands, the proposed permit revision has significant implications for air quality, water quality, and waste management, and potentially may affect BLM and Forest Service lands. We urge that DRMS not permit such an unprecedented,

significant, and speculative new industrial facility before fully consulting these agencies and seeking their expertise, scrutiny, and recommendations.

The undersigned may be adversely affected by a decision approving the proposed technical revision because construction of a coal gasification plant as sought in the application for Technical Revision No. 110 has potential to adversely impact air, water, and other environmental values that the groups' members use and enjoy. *See* Colorado Mined Land Reclamation Board Coal Mining Regulations (revised September 14, 2005) (hereafter "Colorado coal mining regulations") Section 2.8.04(6)(b)(ii).

1. The Proposed Revision Does Not Qualify as a Technical Revision.

We are concerned that DRMS has proposed to approve Technical Revision No. 110 when in fact the proposed permit revision would qualify as a Permit Revision and not a Technical Revision.

Colorado coal mining regulations at Section 2.08.4(2) state that a Technical Revision of a permit is allowed only where there is an "incidental permit boundary revisio[n]," where "required by an order issued under 2.08.3(3)," or for "minor permit modifications" meeting the criteria of Colorado coal mining regulations at Section 1.04(136). The criteria set forth under Section 1.04(136) provide that a technical revision of a permit is only allowed where a change will "not cause a significant alteration in the operator's reclamation plan."

On the other hand, Colorado coal mining regulations at Section 2.08.4(1)(a) state that a Permit Revision is required for "significant alterations in the surface coal mining or reclamation operations described in the original permit application."

Here, the proposed revision would certainly cause a significant alteration in the operator's mining or reclamation plan, and thus would qualify as a Permit Revision under Colorado coal mining regulations. According to the application Bowie Resources, LLC, submitted, the proposed revision would authorize the recovery of waste coal and other mine waste and the construction of a "DAXIOM Plant," which will apparently convert waste coal and other mine waste into synthetic gas, which will in turn be used to generate diesel fuel or fuel oil. Aside from the fact that little specific information is provided in Bowie's revision application describing in detail what the "DAXIOM Plant" will actually be on site, all information in the application thus far indicates that a massive and significantly different new coal recovery and processing operation will be constructed within the permit area. **In many respects, what Bowie is proposing appears akin to an oil refinery, which also processes diesel fuel or fuel oil.**

This represents a significant alteration in the surface coal mining operations. The construction of a "DAXIOM Plant" is unlike anything else currently constructed on the site of Bowie's permit area – indeed, it is as far as we know, a facility without precedent in recent decades on any mine in the state – and Bowie's proposal to process coal mine waste, which we presume includes waste coal, is unlike any mining operations that have recently occurred within the permit area. What's more, with the construction of the "DAXIOM Plant," it would appear that Bowie's reclamation plan would be significantly altered as it would have to account for the

planning, cost, and feasibility of removing the plant, cleaning up whatever waste may be generated by the plant (e.g., ash), and restoring the area to pre-mining conditions. The addition of such a major industrial development would appear to significantly change Bowie's operations and reclamation obligations, indicating that a Permit Revision is necessary.

Even putting aside whether or not DRMS concludes that the proposal, as it stands, would pose significant alterations to Bowie's mining and reclamation plans, DRMS must conclude that there is insufficient information provided to determine whether a Technical Revision is, in fact, appropriate. Bowie appears to have provided few specific details to DRMS regarding what the "DAXIOM Plant" will actually do, what impacts such a facility will have on the permit area, what amounts and types of waste may be generated by such an operation and how such waste will be handled, what costs are involved with the plant, what unique reclamation requirements are created by the construction of such a plant, and whether construction and operation of the plant will fully comply with performance standards set forth under Rule 4 of the Colorado coal mining regulations. The 1-page "Reclamation Estimate" included with the application is therefore largely baseless, and is unlikely to accurately reflect what reclamation may be necessary at what cost.

It is noteworthy that we can find no information on the World Wide Web related to a "DAXIOM Plant" (and almost no information about the rather mysterious Bahamian company that will supply the Plant) and Bowie's application simply describes the plant as a "patent pending process for the recovery of energy from waste materials." Although general schematics and concepts are provided in the revision application, no specific information is provided, including any blueprints of the facility or other construction and operation diagrams. All appearances are that Bowie is applying to DRMS to construct and operate a purely experimental, un-proven surface mining activity. Approving an experimental, "patent pending" plant that converts coal and mine waste to gas and ultimately to diesel fuel and fuel oil cannot represent a "minor" permit modification. With such significant uncertainty, risk, and unknowns, DRMS's proposal to approve the revision as Technical Revision is not appropriate. Given the lack of data about the technology from anyone but the proponent, DRMS cannot simply take at face value Bowie's suggestion that the "DAXIOM is a state of the art gasification process ... [that] generates virtually no pollution," particularly when DAXIOM's information sheet submitted with the application discloses a long list of air pollutants that may be emitted by the facility. *See* TR-110 Application, Ex. 25, Daxiom Information Sheet at 5.

Information in the application also raises questions about what the DAXIOM Plant could ultimately be used for. The materials describing the DAXIOM plant state: "Processing of all organic energy sources is easy, e.g. household waste, wood, tires, biomass, sludge, hospital and veterinary waste, lignite coal, impure coal." *See* TR-110 Application, Ex. 25, Daxiom Information Sheet at 2. This raises the possibility, however remote, that once the plant is built, it could be used not only to burn coal waste, but also as a garbage, tire and/or medical waste incinerator, uses which could have additional environmental impacts at the site and in nearby communities.

Further, Bowie's application may indicate that the company intends to cease permanently coal mining at the site and replace its mining operations with the proposed coal gasification

plant. The cover letter to the application for Technical Revision No. 110 indicates that the coal-to-gas plant will be constructed on the site of the “clean coal pile” once coal there is “depleted.” If, by this change, Bowie is eliminating its ability to store clean coal for shipment to power plants, it is effectively getting out of the mining business and getting into the gas, diesel, and electricity business. This would constitute a “significant alteration [] in the surface coal mining ... operations” at the site, requiring a Permit Revision. Colorado coal mining regulations, Section 2.08.4(1)(a).

The process for approving a Permit Revision is much more rigorous than that for a Technical Revision. A Permit Revision must comply with the notice and hearing requirements under Section 2.07 of the Colorado coal mining regulations, whereas a Technical Revision is simply subject to a nominal comment period. Here, it is critical that DRMS subject the proposed and highly speculative revision to an appropriate level of scrutiny and review. As it stands, the proposed revision would require major changes in Bowie’s mining and reclamation plans, and that construction and operation of the “DAXIOM Plant” poses significant risks and uncertainty around whether Performance Standards will be met. If DRMS chooses to continue processing and reviewing the proposed revision, the agency must undertake a full Permit Revision.¹

2. The Application Fails to Demonstrate How Performance Standards Will be Met

The application submitted by Bowie Resources also fails to demonstrate that all applicable Performance Standards under Colorado coal mining regulations will be met with regards to the operation and reclamation of the “DAXIOM Plant.” In particular, the application does not appear to provide information to demonstrate compliance with the following Performance Standards:

¹ The application includes a 1-page “Reclamation Estimate,” but this estimate does not address many potentially significant impacts, such as ash disposal. And what estimates are provided are questionable or contradicted by other information in the application. For example:

- The estimate fails to explain why the cost estimate for destruction of the conveyors, for reclamation, is zero dollars.

- The “Reclamation Estimate” includes a line for “Task Description” which describes the task as: “Temporary Culvert T-F6 at gob pile #2.” DRMS must explain or correct this description.

- The “Reclamation Estimate” contains an estimate for “Demolish[ing] DAXIOM Plant & Ash Storage” describing the dimension of those facilities as 100x30x43. The proposed amendment to Bowie’s permit describes the DAXIOM plant as twice as wide: “Five DAXIOM skid mounted units occupy and [sic] area 60' wide by 100' long x43' high.” If the facility has twice the square footage as that used to calculate the cost of reclamation in the estimate, the actual cost of reclamation may be double the current estimate.

- The application does not disclose whether plant operations will require electricity, power poles, or other transmission facilities that will result in ground disturbance and that thus ultimately must be reclaimed.

- Support facilities, Section 4.04: The application fails to provide information showing how the specific on-site “DAXIOM Plant” will prevent damage to fish, wildlife, and related environmental values, control and minimize diminution or degradation of water quality and quantity, control and minimize erosion and siltation, control and minimize air pollution, and prevent damage to public or private property in the area.
- Sediment control measures, Section 4.05.5: The application provides no information demonstrating how appropriate sediment control measures will be designed, constructed, and maintained using the best technology currently available to ensure the specific “DAXION Plant” will be constructed, operated, maintained, and reclaimed to ensure that there is no contributions of sediment to streamflow or to runoff outside of the permit area and to minimize erosion as necessary.
- Disposal of noncoal waste, Section 4.11.4: The application discusses utilizing coal mine waste, which presumably includes noncoal waste, yet provides no information to demonstrate that the standards under Section 4.11.4 will be met.
- Contemporaneous reclamation, Section 4.13: The application fails to demonstrate how reclamation of the “DAXIOM Plant” and associated mining operations will occur as expeditiously as practicable.
- Air resources protection, Section 4.17: The application provides no information demonstrating how operation and reclamation of the “DAXIOM Plant” on the permit area will control erosion and attendant air pollution and conduct operations in such a manner as to comply with state and federal air quality statutes and regulations.
- Protection of fish, wildlife, and related environmental values, Section 4.18: The application provides no information demonstrating how operation and reclamation of the “DAXIOM Plant” will protect fish, wildlife, and related environmental values, ensure that no threatened or endangered species are jeopardized, or adversely modify critical habitat of threatened or endangered species.

Overall, Bowie Resources appears to have provided no information at all indicating how its operation and reclamation of the “DAXIOM Plant” will comply with applicable Performance Standards. This indicates that DRMS cannot approve the Technical Revision as proposed.

3. It Appears that a Mining Plan Modification and Other Federal Land and Mineral Use Approvals Would be Required for the Proposed Revision

DRMS has indicated to OSMRE that the proposed revision does not trigger the need for a mining plan modification in accordance with 30 C.F.R. § 746.18. *See* letter of J. Musick, DRMS to A. Boehms, OSM (Nov. 23, 2016) (“The Division has interpreted 30 CFR 746.18 and has

requested concurrence from the Office of Surface Mining to determine that this application as submitted does not constitute a Mining Plan Action.”). We believe DRMS’s interpretation is in error.

Pursuant to federal Office of Surface Mining regulations, a mining plan must be modified where, among other things, there is “[a]ny change in the mining plan which would affect the conditions of its approval pursuant to Federal law or regulation[,]” “[a]ny change in the location or amount of coal to be mined, except where such change is the result of [] [a] minor change in the amount of coal actually available for mining from the amount estimated, or “[a]ny change which requires the preparation of an environmental impact statement under the National Environmental Policy Act[.]” 30 C.F.R. §§ 746.18(a), (d)(1), (d)(3), and (d)(5). An environmental impact statement is required whenever a federal action “[s]ignificantly [a]ffect[s] [t]he quality of the human environment.” 40 C.F.R. § 1502.3.

Here, the construction and operation of a “DAXIOM Plant,” which will convert coal mine waste, including waste coal, into gas in order to produce diesel fuel and fuel oil or to generate electricity, will almost certainly have significant impacts to the quality of the human environment. No such industrial activity has ever been conducted on the permit area – or indeed at any coal mine in Colorado – and the operation appears to pose greater risks and impacts than traditional mining, processing, and loading operations. At the very least, the proposal poses unique, unknown and unanalyzed risks. Because Bowie Resources appears to be proposing something like a refinery or chemical processing activity, this permit revision seems likely to “affect the conditions of its approval pursuant to Federal law or regulations,” represent a “change in the location or amount of coal to be mined,” and represents a change that would require “the preparation of an environmental impact statement.” To this end, it would appear that a mining plan modification would be required pursuant to 30 C.F.R. § 746. We request DRMS make such a recommendation to OSMRE.

Furthermore, it would appear that other federal land use approvals, including from the BLM and the USFS, would be necessary. Given that the mine permit area includes both BLM managed land and minerals, as well as USFS land, it would appear that additional land use approvals would be required before DRMS could authorize the proposed revision. It would also appear that BLM would be required approve a new resource recovery and protection plan, something that has yet to be suggested or proposed by Bowie Resources or the BLM.

4. Request for Public Hearing

In light of the aforementioned concerns, we, the undersigned, hereby request that DRMS hold a public hearing regarding the proposed permit revision. There are serious questions over whether the proposed revision will protect the interests of the public and affected landowners (including the American public, who all own public lands in the permit area). A public hearing is needed to ensure the public has a full opportunity to engage in this process, to share their concerns, and to better understand Bowie’s proposal. The fact that the permit area is within 100-foot of the outside right-of-way of a public road raises concerns over safety, the integrity of the public roadway, reliability of access to lands and the North Fork of the Gunnison River in the

area. A hearing is necessary to ensure the public has a chance to present concerns regarding impacts to this public right of way.

Sincerely,

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U.S. Representative Scott Tipton
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