

STATE OF COLORADO

Bill Ritter, Jr., Governor
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

Energy Fuels Resources Company
ATTN: Mr. Stephen P. Antony
Executive Vice President and Chief Operating Officer
44 Union Boulevard, Suite 600
Lakewood, CO 80228

RE: Piñon Ridge Uranium Mill (Permit Numbers: 09MO0945 through 09MO0952)

Dear Mr. Antony:

The Division has completed the preliminary analysis for the Piñon Ridge Uranium Mill. It has been found that additional information is required as indicated below:

1. The maximum volumes of reagent to be used in the mill, and documentation for the components of the reagents (Material Safety Data Sheets (MSDS) or chemical analysis information).
2. Please submit a Reasonably Available Control Technology (RACT) analysis for the settling and evaporation ponds. Also, add sulfuric acid mist to the APEN(s) for these.

The EPA has defined fugitive emissions as :

"Emissions that could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening."

The reagents, and emissions from them, are captive, and controllable throughout the processing of ore within the mill building. These emissions are not fugitive. Once released, with the tailings liquids, into the settling and evaporation ponds, they become subject to the Colorado Air Quality Control Commission (CAQCC) Regulation 7 Part V.A., Volatile Organic Compounds Control which states: "No person shall dispose of volatile organic compounds by evaporation or spillage unless RACT is utilized". Note: RACT stands for Reasonably Available Control Technology.

3. Please submit an Air Pollutant Emission Notice (APEN) for particulates, PM10, and ammonia from the Vanadium dryer.

APENs are required for any source that emits greater than two tons per year of a Criteria Pollutant, based on the **Uncontrolled** emissions. This would include the particulate emissions from the Vanadium dryer, without considering the control

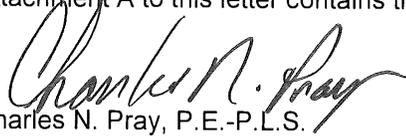
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for the baghouse. (Ref: CAQCC Reg. 3, Part A, II.B.3.a). Uncontrolled emissions of ammonia from the dryer should also be reported on the APEN (if 1000 pounds per year or more) as ammonia is a bin C non-criteria reportable pollutant

4. Please submit an APEN for sulfuric acid mist emissions from the leach and preleach tanks. The Division has determined that the scrubber is a control device. Therefore an APEN is required based on the uncontrolled emissions from these tanks. See point 009 under Appendix A for discussion.
5. For the process vent, please provide a copy of the e-mail from John Litz referenced in your application discussing the background for emission factor used.
6. Please submit an APEN for the fire pump engine. An APEN and permit are required for this engine as it is subject to the Federal New Source Performance Standards (NSPS) subpart IIII.

The application will be held until receipt of the required information, at which time processing will continue. If you have any questions please give me a call at (303)-692-3133.

Attachment A to this letter contains the results of the initial preliminary analysis.



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cc: file
Frank Filas, Energy Fuels, e-mail copy
Kris Allen, Kleinfelder, e-mail copy

ATTACHMENT A

AIRS ID	Piñon Ridge ID	Activity/process	APEN issue
001	UPMAIN	Fugitive emissions from vehicle travel on the unpaved main plant road	Values in the tab for the unpaved Main Plant Road are suitable for permit processing.
002	PMAIN	Fugitive emissions from vehicle travel on the paved main plant road.	Values in the tab for the paved Main Plant Road are suitable for permit processing.
003	MONRD	Fugitive emissions from the unpaved service roads that lead to various monitoring sites.	Values in the tab for the secondary plant road are suitable for permit processing.
004	SECRD	Fugitive emissions from vehicle travel on the unpaved road that surrounds the secure licensed boundary of the Facility.	Values in the tab for the secondary plant road are suitable for permit processing.
005	ORERD	Fugitive emissions from loader pad during ore transfer activities.	Values in the tab for the stockpile areas are suitable for permit processing.
006	WIND1	Wind erosion of the ore stockpile.	Values in the tab for the stockpile areas are suitable for permit processing.
007	110-SNG-01/110-FDA-01	Unloading of ore to the grizzly screen and transfer of ore from the apron feeder to the feed conveyor.	Values in the tab for the Area 110 – Feed system area are suitable for permit processing.
008	UNLOAD3/120-FDV-01	Unloading from the conveyor and the vibrating feeder.	Values in the tab for the Area 120 – SAG mill are suitable for permit processing.

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AIRS ID	Piñon Ridge ID	Activity/process	APEN issue
009	220-GHS-01	Process vent for two pre-leach tanks and eight leach tanks.	<p>Sulfuric acid mist is listed as a criteria pollutant for purposes of reporting under CAQQC Regulation 3, I.B.16.</p> <p>The working and breathing losses from the sulfuric acid storage tanks should be included in the estimated emissions for the sulfuric acid mist. The tanks should be included in the permit as point sources. Please supply APENs and supplemental forms for Above Ground Storage Tanks (AST).</p> <p>Note from AREA 200 – LEACH emissions calculations: 1. The scrubber is integral to the leach process in that it collects and recirculates process solution into the counter current decantation circuit. The leach system would not operate without the scrubber as process solution would be lost. The scrubber is electrically interlocked such that if it malfunctions, the entire leach system will shut down. Because the scrubber is integral to the leach process itself, the uncontrolled emissions are calculated as being the same as the controlled emissions.</p> <p>The scrubber described in the documentation could be eliminated from the leach processes. Wiring an electrical interlock into the circuits does not create the "need" for the scrubber. Please supply an APEN for the leach process which includes the uncontrolled emission estimate.</p>

AIRS ID	Piñon Ridge ID	Activity/process	APEN issue
010	WIND2	Wind erosion of the tailing cell beaches.	Values in the tab for Area 300 – Tailings for permit processing.
011	EVAP1	Evaporation of the Tailing cell liquids.	<p>Sulfuric acid mist is listed as a criteria pollutant for purposes of reporting under CAQQC Regulation 3, I.B.16.</p> <p>Regulation 7: V. Disposal of Volatile Organic Compounds V.A. No person shall dispose of volatile organic compounds by evaporation or spillage unless Reasonably Achievable Control Technology (RACT) is utilized.</p> <p>A RACT analysis is required for these emissions.</p>
012	WIND3	Wind erosion of the exposed area at the evaporation ponds.	Values in the tab for the AREA 300 – Tailings are suitable for permit processing.
013	EVAP2	Evaporation of the liquid in the evaporation ponds.	<p>Sulfuric acid mist is listed as a criteria pollutant for purposes of reporting under CAQQC Regulation 3, I.B.16.</p> <p>Regulation 7: V. Disposal of Volatile Organic Compounds V.A. No person shall dispose of volatile organic compounds by evaporation or spillage unless Reasonably Achievable Control Technology (RACT) is utilized.</p> <p>A RACT analysis is required for these emissions.</p>

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AIRS ID	Piñon Ridge ID	Activity/process	APEN issue
014	420-MSS-01-04, 430-MSS-01, 440-MSS-01-03, 440-TKH-01-02	Eight Uranium settler process tanks in Trains A and B, the Uranium scrubber mixer settler process tank, two Uranium stripper mixer settler process tanks, and the loaded and barren organic process tanks.	<p>NOT FUGITIVE EMISSIONS.</p> <p>The reagent used in the mixer settler process tanks for processes of these type are loaded into storage tanks, pumped or gravity fed to the grinder mill and the liquids and ore are flowed to the settler tanks. The emissions are at that point released into the atmosphere of a closed structure. Uncontrolled emissions ~ 62.38 tpy.</p>
015	620-MSS-01-05, 630-MSS-01-05, 640-MSS-01-04, 640-MSS-01-02	Ten Vanadium Mixer tanks in Trains A and B, the Vanadium scrubber mixer settler process tank, three Vanadium stripper mixer settler process tanks, and the loaded and barren organic process tanks.	<p>NOT FUGITIVE EMISSIONS.</p> <p>The reagent used in the mixer settler process tanks for processes of these type are loaded into storage tanks, pumped or gravity fed to the grinder mill and the liquids and ore are flowed to the settler tanks. The emissions are at that point released into the atmosphere of a closed structure. Uncontrolled emissions ~ 83.02 tpy.</p>
016	730-GHS-01	Process vent that includes five vanadium stripper tanks, rotary kiln exhaust, vanadium belt filter exhaust and vanadium dryer.	<p>The scrubber is a control device. Estimates for uncontrolled emissions are required for this process.</p> <p>Please provide a copy of the e-mail from John Litz, referenced as the source for the emission factor as background for these calculations.</p> <p>Uncontrolled emissions ~ 2.86 tpy. from calcs, 5.12 from supplement.</p>

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AIRS ID	Piñon Ridge ID	Activity/process	APEN issue
New XA/XP point	730-DCS-01	Vanadium particulate from the dryer. W/o BH ~ 4.38 tpy.	This process is vented to a baghouse in – line before the scrubber described above. As a separate emission point the vent is required to have an APEN, and should include an estimate of the uncontrolled emissions from the dryer, before applying the control factor for the baghouse. Uncontrolled emissions ~ 22.34 tpy.
XA	530-GHS-01	Uranium precipitation and packaging.	“Closed loop” vacuum dryer, no emissions expected.
017	730-GHS-02	Process Vent that includes the fusion furnace, casting Wheel and vanadium packaging system.	Values in the TAB for AREA 700 – Vanadium P&P are suitable for permit processing.
018	920-BLR-01	Propane-fired boiler that will supply steam to numerous processes within the mill.	The value entered on the APENs under requested fuel use for the propane heaters is 12.25, with no units, and no hours for operation provided. Assuming that two heaters could operate 8760 hours per year, with a heat value of 91.5 MMbtu/1000 gallons, the estimated volume of propane may be as much as 2.346 MM gallons of propane for two boilers. This will become the permitted limit for propane use.
019	920-BLR-02	See AIRS 018	See AIRS 018
020	920-BLR-03	See AIRS 018	See AIRS 018
021	1000-SG-01	Diesel fired engine for emergency power supply.	Emission limits for maintenance and testing are based on 100 hours of operation.

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AIRS ID	Piñon Ridge ID	Activity/process	APEN issue
New Point	Fire Pump	Diesel fired engine for fire pump located in AREA 900.	The Division requires any engine, including fire pump engines manufactured after July 1, 2006, subject to the New Source Performance Standards IIII to be permitted. There is no exemption for hours of operation or horsepower. Please supply a RICE APEN for the fire pump engine.
XA		BagBuster Series 319 model 1032	APEN Exempt. 93 lbs/year of PM/PM10, uncontrolled.
XA		Wet Venturi Scrubber for Uranium Precipitation and Packaging	APEN Exempt. 70 lbs/year of Sulfuric acid mist, uncontrolled.
END OF ATTACHMENT A			