SPECIAL USE PERMIT APPLICATION
PIÑON RIDGE MILL FACILITY
MONTROSE COUNTY, COLORADO

Submitted to

Montrose County Land Use Department
317 South Second Street
Montrose, Colorado 81401

Prepared for

ENERGY FUELS RESOURCES CORPORATION

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Abbreviations and Acronyms

ALARA	as low as reasonably achievable
APENs	Air Pollution Emission Notices
BMPs	Best Management Practices
CCD	Counter Current Decantation
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
dBA	Decibels (A-weighted)
DOE	U.S. Department of Energy
Energy Fuels	Energy Fuels Resources Corporation
Facility	Piñon Ridge Mill Facility
GCL	Geosynthetic Clay Liner
HDPE	High Density Polyethylene
kV	Kilovolt
Mill License	Radioactive Source Material License
mrem	Millirem
NRC	U.S. Nuclear Regulatory Commission
Project	Piñon Ridge Mill Facility
Property	Piñon Ridge Property
SAG	Semi-Autogenous Grinding
San Miguel	San Miguel Power Association, Inc.
sf	Square Foot or Square Feet
SPCC	Spill Prevention, Control and Countermeasure
SWMP	Stormwater Management Plan
SX	Solvent Extraction
tpd	Tons per Day
U_3O_8	Uranium Oxide
USDOT	U.S. Department of Transportation
V_2O_5	Vanadium Oxide

1.0 Executive Summary

Energy Fuels Resources Corporation ("Energy Fuels") owns a private land parcel, the Piñon Ridge Property (the "Property"), encompassing approximately 880 acres in Montrose County, Colorado. The Property is located approximately 12 miles west of Naturita and approximately 7 miles east of Bedrock, along State Highway 90. The Property address is 16910 Highway 90, Bedrock, Colorado 81411. Refer to Figure 1, Site Location Map, for the general location of the Property.

Energy Fuels is proposing to construct and operate the Piñon Ridge Mill Facility (the "Project" or the "Facility") at the Property to process uranium and vanadium ore mined from its existing nearby operations and from area mines owned and operated by others. The Facility is expected to employ up to ~~95~~85 people and operate 24 hours per day, 350 days per year.

Ore will be delivered to the site in highway trucks via State Highway 90 at the estimated rate of ~~42~~21 loads per day, predominately during daylight hours. The projected operating life of the Facility will be ~~20 to 30~~40 years. In addition to the mill, proposed facilities include tailings cells, evaporation ponds, an ore stockpile pad, access roads, and administration, maintenance and warehouse buildings. The proposed facilities incorporate engineered systems designed to protect human health and the environment. Prior to commencement of operations, Energy Fuels will also develop detailed operational plans for inspecting and monitoring these systems throughout the operational life and closure of the Facility.

The proposed milling operation involves grinding the ore into a fine slurry and then leaching it with sulfuric acid to separate the uranium and vanadium from the remaining rock. Uranium and vanadium are then recovered from solution and precipitated as concentrates, which are sealed in 55-gallon, steel drums and transported off site. Uses of uranium and vanadium include fuel for electric power generation, manufacturing of industrial chemicals, medical applications, and formation of high strength alloy steels, amongst others.

Energy Fuels is currently working towards obtaining regulatory approval to construct and operate the Facility. The Colorado Department of Public Health and Environment ("CDPHE") is the regulatory agency in charge of issuing the license, which would authorize the Company to construct and operate the mill facilities. Additionally, the Property is located within a zone district classified by Montrose County as General Agricultural, and the proposed use of mineral processing (or "Mineral Resource Operation Facility") is not listed as a use-by-right under that zone district. Therefore, the proposed use requires authorization subject to a Special Use Permit through the Montrose County Land Use Department. Energy Fuels is seeking that approval through this application.

Construction of the mill and ancillary facilities would commence following full regulatory approval, which is anticipated in early ~~2010~~2011, with milling operations following through approximately ~~2031~~2051. The operating life could be extended by an additional 10 years or more if economic conditions warrant. The company would commence closure and reclamation activities following the productive life of the mill.

The objectives of the closure and reclamation plan are to establish a long-term stable land configuration with a self-sustaining ecosystem, and to provide for environmental protection and public safety. The majority of the site would be returned to rangeland use, with the

exception of the tailings cells, which would be capped with an engineered soil cover and transferred to the U.S. Department of Energy ("DOE") or the State of Colorado for long-term monitoring and maintenance. Energy Fuels is required to provide the necessary funding to the DOE or State at the time of transfer to pay for the extended monitoring and maintenance program. The Durita site, a former uranium heap leach operation located in east Paradox Valley, is an example of a similar site that has been closed in accordance with CDPHE requirements.

2.0 Introduction

Energy Fuels Resources Corporation ("Energy Fuels") is a wholly owned U.S. subsidiary of Energy Fuels Inc., a publicly traded Canadian Corporation based in Toronto, Ontario. Energy Fuels is a Colorado Corporation with offices in Nucla and Lakewood, Colorado and Kanab, Utah. The principal business activity of the company is mineral exploration, development, and mining of uranium and vanadium properties located in the states of Colorado, Utah, and Arizona. Energy Fuels has acquired property interests covering six former operating uranium mines and, since September 2006, has been taking steps to bring these former mines into production.

In 2007, Energy Fuels purchased the Piñon Ridge Property (the "Property") in Montrose County with the intent to license, construct and operate the Piñon Ridge Mill Facility (the "Project" or the "Facility") for processing uranium and vanadium ores. The Facility is expected to create up to ~~95~~85 new jobs at full capacity. Energy Fuels desires to hire local employees and estimates that 80 percent will come from the local population. Wages will be very competitive, averaging $40,000 to $75,000 per year, including benefits. It is estimated that another ~~200~~100 miners and truck drivers will be employed at nearby mines in western Colorado and eastern Utah to supply ore to the Facility.

2.1 Purpose and Need

Energy Fuels is currently designing the Facility and procuring permits to construct and operate the Facility in order to process ore and produce both uranium oxide ("U_3O_8") concentrate and vanadium oxide ("V_2O_5") concentrate. The proposed mill is expected to process ore mined from Energy Fuels mine operations, and ore purchased from nearby mines owned and operated by others. The proposed operating life of the mill is ~~20~~40 years at the projected milling rate of ~~1,000~~500 tons per day ("tpd"); however, the mill life could be extended ~~to 30 years~~ with the construction of additional tailings cells and evaporation ponds. In addition to the mill components, primary facilities include tailings cells, evaporation ponds and an ore stockpile pad. Ancillary facilities include access roads, a truck scale with scale house, administration building, warehouse and maintenance buildings, laboratory, utilities, stormwater control structures and soil stockpiles. Refer to Figure 2, Site Plan, for the layout of the proposed Facility at full build out (i.e., at 40 years).

According to the Montrose County Zoning Resolution (Montrose County 2003), the Project site is located within a zone district classified as General Agricultural. Within each zone district, uses are listed as a "use-by-right," a "special use," or a "prohibited use." The primary function of the proposed Facility is to process ore delivered to the site, mined from the Company's offsite operations. Excavation of onsite soils will be limited to borrowing native soils for use in the construction of the Project facilities and for use in reclamation. No mineral (ore) or overburden will be extracted onsite. Accordingly, the proposed use is mineral processing or "Mineral Resource Operation Facility."

The proposed use is not listed as a use-by-right under the General Agricultural zone district, and therefore requires authorization subject to a Special Use Permit through the Montrose County Land Use Department under the listed special use *(l.) "New mineral resource development and extraction operations and facilities."*

2.2 Regulatory Background

Since August 2007, Energy Fuels has been conducting environmental baseline studies at the Property and preparing Facility designs in preparation towards submitting a Radioactive Source Material License ("Mill License") application to the Radiation Management Program of the Colorado Department of Public Health and Environment ("CDPHE"). CDPHE is the primary licensing authority for uranium mills in the State of Colorado.

A team of engineering and environmental consultants is currently preparing an Environmental Report required by CDPHE prior to issuance of the Mill License. The Environmental Report will include the results of the environmental baseline studies, fully characterizing the existing environmental setting at the Project site, and detailed plans for the mill, tailings cells, evaporation ponds, buildings and infrastructure. Energy Fuels anticipates that the Environmental Report will be submitted to CDPHE in ~~early~~the fall of 2009. Once CDPHE determines the document complete, it will solicit public comment and initiate a comprehensive technical review of the document. Public comment will be solicited through two, locally held public meetings. Montrose County will have the opportunity to provide its comments on the Environmental Report to CDPHE and, according to State law, Energy Fuels is required to provide up to $50,000 to Montrose County to defray the costs incurred by the County in its review and comment process.

Energy Fuels anticipates full regulatory approval for the Project, including issuance of the Mill License, by early ~~to mid 2010~~2011. Refer to Appendix A, Regulatory Requirements, for a listing and description of the permits and approvals required for full regulatory authorization of the Project.

2.3 Document Format

This Special Use Permit Application has been developed for submittal to the Montrose County Land Use Department in accordance with the Montrose County Zoning Resolution, last amended December 1, 2003 (Montrose County 2003). The main body of this application provides the narrative and plans necessary to fulfill the requirements of the Special Use Permit Application as defined by Montrose County. Facility plans may be further refined in response to the CDPHE review of the Mill License application; however, the general design, operation and facility layout presented in this application is not expected to change significantly.

The appendices to this document contain supplemental information intended to facilitate agency and public review of the proposed Project, such as more detailed descriptions of the proposed milling process, environmental controls, closure and reclamation procedures, and measures to protect worker and public health. Additionally, the appendices provide land ownership information and a listing of the regulatory permits required for the Project.

2.4 Special Use Conformance

The information provided in this Special Use Permit Application has been prepared for use by the Montrose County Planning Commission to judge the acceptability of the proposed special use within the existing General Agricultural zone district. This application provides a Project description, site plans and measures for mitigating offsite impacts in accordance with the Montrose County special use review criteria. Additionally, the application provides a preliminary description of proposed water and sewer systems, which will be designed in

accordance with applicable standards. Appendix B, Special Use Criteria, provides the specific, special use review criteria along with a written discussion, demonstrating conformance with each criterion.

3.0 Property Location, Ownership and Current Use

The proposed Piñon Ridge Mill Facility (the "Project" or the "Facility") is situated in Montrose County, Colorado on an 880-acre private parcel owned by Energy Fuels Resources Corporation ("Energy Fuels"). The Property is located in Paradox Valley, approximately 12 miles west of Naturita and approximately 7 miles east of Bedrock, along the northeastern edge of Davis Mesa. By straight line, the southeast corner of the Property boundary is 10.0 miles from the Naturita city limits and the northwest corner of the Property boundary is 6.7 miles from the Dolores River bridge at Bedrock. By highway, the proposed site access point near milepost 23 is approximately 12.9 miles from the "Welcome to Naturita" sign on the north side of town and approximately 8.1 miles from the east Bedrock city limits. The Property address is 16910 Highway 90, Bedrock, Colorado 81411.

More specifically, the Property is situated in portions of Section 5 and Section 17, and all of Section 8 in Township 46 North, Range 17 West of the New Mexico Prime Meridian. The Property boundary lies primarily southwest of State Highway 90 and is shown on the U.S. Geological Survey, Bull Canyon and Davis Mesa 7.5-minute topographic quadrangles. Access to the Project site is via State Highway 90 to milepost 23.

Refer to Figure 1, Site Location Map, for the general location of the Property, and Figure 3, Property Map, for the Property boundary. Appendix C, Legal Description and Property Ownership, provides the full legal description of the Property, existing rights-of-way and easements, and a listing of property owners within 1,320 feet of the Property.

The Property has been and is currently being used for seasonal cattle grazing. Energy Fuels has also installed geotechnical borings, groundwater monitoring wells, surface water monitoring systems, air monitoring devices, and meteorological stations on the Project site to establish baseline environmental conditions for permitting purposes. The surrounding property consists of rangeland, uranium mines, and undeveloped land. The uranium mines include an open pit operation immediately southeast of the Property and underground mines along the top of the mesa south of the Property. Energy Fuels does not own or operate these mines, which are currently inactive or in the process of reopening. The closest residences to the Property are located 3.25 miles northwest, 3.25 miles southeast, and 4 miles southeast of the Property boundary.

4.0 Facility Design and Operation

At the start of operations, the mill, tailings cells, evaporation ponds, ore pad, and onsite ancillary facilities will encompass approximately ~~300~~260 of the 880 available acres and will gradually expand to encompass approximately 400 acres over the life of the Piñon Ridge Mill Facility (the "Project" or the "Facility"). The estimated capital cost to construct the ~~1,000~~500 tons per day ("tpd") mill, initial tailings cell, and evaporation ponds is 150~~ to 180~~ million dollars. The Facility has been designed so that ~~a smaller 500 tpd facility could be constructed initially and then~~ it can be easily expanded to process 1,000 tpd ~~if desired~~in the future. The plans presented in this Special Use Permit Application reflect the ~~1,000~~500-tpd, ~~20~~40-year operating life scenario.

Figure 2, Site Plan, shows the Facility in plan view at the end of its productive life (i.e., after ~~20~~40 years of milling operations). Figure 4, Facility Rendering, presents a photographic rendering of the Facility depicting what the Project site would look like following its productive life, when viewed looking north from the top of the Davis/Monogram Mesa. The expected visual impact from State Highway 90 will be considerably less since the mill is located approximately ¾-mile south of the highway and the tailing cells and evaporation ponds are low-profile facilities with the majority of their storage capacity located below the existing ground level.

Building dimensions and locations provided in this application are preliminary and may change during final design of the Facility. Energy Fuels Resources Corporation ("Energy Fuels") will submit detailed designs to the Building Division of the Montrose County Land Use Department after obtaining the Radioactive Source Material License ("Mill License") from the Colorado Department of Public Heath and Environment ("CDPHE") and finalizing the Facility design.

4.1 Mill Facility

Milling is the term used to describe the grinding and further processing of ore to extract the valuable minerals from the host rock. At the mill, ore will be ground into fine slurry and then leached with sulfuric acid to increase the solubility of the uranium and vanadium. Uranium and vanadium are then recovered from solution and precipitated as uranium oxide ("U_3O_8") concentrate (called yellowcake) and vanadium oxide ("V_2O_5") concentrate, respectively. The Piñon Ridge mill is designed to treat up to ~~1,000~~500 tons of ore per day and to produce both U_3O_8 and V_2O_5 over a ~~20 to 30~~40-year operating life.

These oxide forms of uranium and vanadium are ~~the forms most commonly found in nature and are~~ relatively stable under a wide range of environmental conditions. The primary use of U_3O_8 is to make fuel for nuclear power reactors that generate electricity. Uranium is also used in small nuclear reactors to produce isotopes for medical and industrial purposes around the world. The primary use of V_2O_5 is in the manufacture of sulfuric acid, an important industrial chemical. Vanadium itself is used in several applications, including surgical instruments, tools and die steels, engineering alloy steels used in axles, crankshafts and gears, stainless steels, rail steels, and titanium alloys. Vanadium helps form high strength, low-alloy steels, which are known for their increased strength and durability.

The proposed milling stages at the Facility include:

- Grinding;
- Pre-leaching and Thickening;
- Leaching;
- Liquid/Solid Separation and Purification;
- Uranium Recovery; and
- Vanadium Recovery.

Figure 5, Mill Facility, shows the proposed layout of the mill facilities. The primary mill buildings and their respective square feet ("sf") of floor space are the semi-autogenous grinding ("SAG") Mill/Leach Tank Building (22,000 sf), the Boiler Building (6,000 sf), the Solvent Extraction Building (49,000 sf) and the Drying/Packaging Building (46,000 sf). These buildings will have varying heights up to 85 feet. The areas outside these buildings will be surfaced with gravel and sloped to drain. Appendix D, Mill Components, provides a description of each primary milling stage.

4.2 Waste Management Facilities

Following the extraction and recovery of the uranium and vanadium from the ore, the remaining waste products from the milling operation are disposed onsite, in engineered facilities designed to protect the environment. These facilities are designed to contain ~~20~~40 years of waste material at a milling rate of ~~1,000~~500 tpd; however, if additional resources are identified, the life of the Facility can be extended by constructing additional tailings cells and evaporation ponds.

4.2.1 Tailings Cells

After extraction of the uranium, the finely ground waste materials (called tailings) are pumped as a slurry through a pipeline to a tailings cell for dewatering and permanent disposal. The tailings consist of all materials remaining in the ore following the extraction of uranium and vanadium. The main radioactive materials remaining in the tailings are Thorium-230 and Radium-226.

The tailings cells are synthetically-lined impoundments constructed predominately below ground level, covering approximately 30 acres each. A total of three tailings cells (Cells A, B, and C), each with a capacity of 2.3 million tons, are required to store the tailings over a ~~20~~40-year operating life. The design capacity of each cell incorporates adequate vertical distance (freeboard) between the top elevation of the tailings material and the top elevation of the cell embankment. As shown on Figure 2, Site Plan, Cell A has been divided into two subcells (Cells A1 and A2) to provide operational flexibility in discharging tailings to the facility. Similar subcells may be constructed in Cell B and Cell C.

After the tailings slurry is discharged to a cell, the sands settle and the majority of the water is recovered by a floating pump barge. Additionally, each cell or subcell has an underdrain system, designed to recover any water seeping through the sands and not recovered by the pump system. The recovered water is returned to the mill for reuse. Once a tailings cell reaches

full capacity, the entire cell is covered with an engineered cap consisting of soil derived from onsite excavation.

4.2.2 Evaporation Ponds

The portion of the solution that remains after the vanadium minerals have been recovered (i.e., the raffinate solution) will be pumped to a series of connected, shallow pond cells for evaporation. ~~The~~Initially, the total lined evaporation pond area ~~is 80~~will be 40 acres. The raffinate solution contains high levels of salts and cannot be easily recycled. Evaporation of the raffinate solution will be enhanced by mechanical means (i.e., the use of bubblers, fountains, or misters) within the central area of the ponds. As evaporation ponds fill with salts, new ponds will be constructed thus increasing the evaporation pond area to 80 acres.

4.3 Ore Delivery and Storage

4.3.1 Ore Pad Facility

Energy Fuels plans to construct an engineered ore pad in the area immediately east of the mill to receive and store the ore that is delivered to the Facility for processing. Having the capability to stockpile ore at the mill will enable Energy Fuels to maintain a readily available source of mill feed, balance mining and milling operations, and maximize the mill efficiency by blending and feeding stockpiled ore to the mill at varying rates and grades as necessary. Furthermore, ore deliveries to the Facility from area mines would not be jeopardized during scheduled and unscheduled mill shutdowns.

Approximately one acre of the ore pad will be lined with concrete and the remaining five acres will be lined with a geosynthetic clay liner ("GCL") covered with a protective layer of compacted native soils and roadbase materials. The concrete pad will be located next to the feed hopper and conveyor, where equipment loading and unloading activity is greatest. The five-acre lined pad will have a horseshoe-shaped configuration encircling the feed hopper and concrete pad. A front-end loader will feed the dumped ore into the ore hopper. The hopper will be enclosed within a three-sided structure to minimize fugitive dust emissions.

4.3.2 Ore Delivery

Ore will be delivered to the Project site in 24-ton capacity highway trucks via State Highway 90 at the estimated rate of ~~1,000~~500 tpd, or ~~42~~21 loads per day, predominately during daylight hours. Eastbound and westbound ore deliveries are expected to be approximately equal. The delivered ore will be stockpiled on the ore pad and ultimately processed in the mill. Haul trucks entering the site will be weighed at an onsite truck scale before moving to the ore pad facility. After being weighed, trucks will move onto an elevated earthen platform (located on the east end of the ore pad) and dump their loads over a retaining wall onto the 5-acre ore pad without entering the ore pad area. Trucks dumping onto the pad from the dumping platform will not require washing prior to leaving the site provided they pass the required radiation screening. Under certain situations and after being weighed, trucks delivering ore may enter directly onto the concrete ore pad or 5-acre ore pad to dump their loads. Upon leaving the pad, these trucks will be washed at the onsite truck wash facility and screened for radiation prior to leaving the site.

4.3.3 Ore Source

The two, primary sources of ore that will be delivered to the ore pad are the Energy Fuels Whirlwind Mine (formerly called the Packrat Mine and Urantah Decline) and Energy Queen Mine (formerly called the Hecla Shaft Mine). These mines are located on the Colorado Plateau within the Uravan Mineral Belt District in Western Colorado and Eastern Utah, and are within reasonable truck hauling distance to the Project site. More specifically, the Whirlwind Mine is located in Mesa County, Colorado and Grand County, Utah, approximately five miles southwest of Gateway, Colorado. The Energy Queen Mine is located in San Juan County, Utah between La Sal and La Sal Junction. Both of these mines are capable of producing 200 tpd of uranium ore and are in advanced permitting stages.

The balance of the ore feed is expected to come from mines that are controlled and operated by other mining companies in the area. Energy Fuels also has approximately 20 additional uranium properties on the Colorado Plateau in Western Colorado and Eastern Utah that could become future sources of ore.

4.4 Transportation and Storage of Concentrates and Consumables

4.4.1 Mill Concentrates

Uranium Oxide

At the projected milling rate of ~~1,000~~500 tpd and average ore grade and recovery rate, approximately ~~4,400~~2,200 pounds of uranium oxide ("U_3O_8"), called yellowcake, would be produced per day. The yellowcake, which has a consistency similar to baking flour, will be packaged in 55-gallon steel drums for shipment. The drums of yellowcake, each weighing approximately 900 pounds, will be shipped to a conversion plant where the uranium is converted to uranium hexafluoride, which can be enriched for use in nuclear power plants. Conversion plants currently in operation include the ConverDyn facility in Metropolis, Illinois, the Cameco facility in Port Hope, Ontario, and several more facilities in both France and Great Britain. Shipment to the North American facilities would be via trucks licensed to transport low-level radioactive material. Shipment overseas would likely require truck transport to a port in Texas followed by ship transport. Typically, a transport truck can carry 25 to 27 tons of cargo, or up to approximately 55 to 60 drums of yellowcake. Approximately ~~30~~15 truckloads of yellowcake would be shipped from the Facility per year.

Steel lids are fastened to the drums with bolted clamp rings. The lid and clamp ring system provide a secure, dust-proof seal that is resistant to spillage. Furthermore, a security seal is fastened to each clamp ring to reveal any unauthorized tampering with the drum and its contents. The exterior of each packaged barrel will be washed and monitored for the presence of radioactive material and then labeled according to Department of Transportation requirements. After packaging and prior to shipment, the drums will be temporarily stored in a secure facility at the mill.

Upon shipment, the packaged drums will be loaded into transport trucks, typically stacked two layers high, and braced in place with wood beams. Following loading, the outside of the transport truck will be monitored for radiation. The transport trucks will be placarded as specified by the Department of Transportation having regulatory authority over the shipment

from departure of the Facility to arrival at its destination, and the drivers will be provided with shipping documents and emergency response documentation.

Transportation routes will be prepared in advance and made available to Energy Fuels and the shipping company. The designated trucking routes will be on major highways accessible by emergency response teams. The proposed route from the Facility to Interstate 70 is via Highway 90 east to Highway 141 north, then Highway 50 north to the Interstate.

A transportation emergency response plan prepared and implemented by Energy Fuels and/or the shipping company will apply to each shipment (see Section 4.5.8, Emergency Management). The emergency response plan will include availability of equipment and personnel to respond to a trucking accident. The response procedure for an accident where yellowcake is released from one or more drums, involves isolation of the spilled yellowcake, keeping people away from the yellowcake spill area, monitoring for yellowcake in the air and in the soil, and arranging for the safe pickup and secure transport of the spilled yellowcake back to the Piñon Ridge Mill Facility.

Vanadium Oxide

At the projected milling rate of ~~1,000~~500 tpd and average ore grade and recovery rate, approximately ~~14,700~~7,300 pounds of vanadium oxide ("V_2O_5") would be produced per day. The V_2O_5, a black-flake product, will also be packaged in 55-gallon steel drums for shipment. The drums of V_2O_5, each weighing approximately 570 pounds, would likely be shipped via truck to a plant that produces ferro-vanadium products. Two of the larger such plants include the Stratcor plant in Hot Springs, Arkansas and the Bear Metallurgical plant in Butler, Pennsylvania. Approximately ~~100~~50 truckloads of V_2O_5 (which is not radioactive) would be shipped from the Facility annually.

The V_2O_5 would be packaged, temporarily stored on site, and loaded for transport in the same manner as the yellowcake. Shipments of vanadium are regulated by the Department of Transportation but without all the provisions applying to shipments of radioactive materials.

Transportation routes and emergency response plans will be prepared in advance and made available to Energy Fuels and the shipping company. The designated trucking routes will be on major highways accessible by emergency response teams. The proposed route from the Facility to Interstate 70 is via Highway 90 east to Highway 141 north, then Highway 50 north to the Interstate.

4.4.2 Consumables

During operations, the Project will consume a variety of products, which must be delivered from offsite vendors on a routine basis and stored onsite. On average, ~~15~~8 tankers and semi-trailers will deliver materials and fuel to the site daily, Monday through Friday. The majority of deliveries will occur during daylight hours. Approximately ~~80~~75 percent (i.e., ~~12~~6 trucks) will access the site from the west on Highway 90 and ~~20~~25 percent (i.e., ~~3~~2 trucks) will access the site from the east on Highway 90. An average of three additional smaller trucks (e.g., UPS, Fed-Ex) will deliver smaller shipments of materials and parts on a daily basis. These smaller shipments will typically access the site from the east.

Chemicals, reagents, diesel fuel and propane used in the ore processing operation will be delivered to the Project site by licensed haulers in approved U.S. Department of Transportation ("USDOT") containers. These materials and fuels will be stored on site in closed tanks and/or weatherproof buildings. The containers will be properly labeled and meet applicable storage regulations for the stored media, including secondary containment. Energy Fuels employees and contractors will be trained in proper handling, storage and use of the chemicals, reagents and fuels consumed on site. The storage and use of these products, including procedures for emergency response, cleanup of spills, and spill reporting will be defined in Energy Fuels safety policies and the Project's Material Containment and Spill Prevention Control and Countermeasure Plan.

4.5 Ancillary Facilities and Infrastructure

4.5.1 Access

The access point to the Project site is located near milepost 23 on State Highway 90. A gravel road will be constructed to provide access to the Facility from the highway. Gravel roads branching off the main access road will provide access to the ore pad and administration building. Figure 2, Site Plan, shows the site access point and primary road locations. Secondary dirt or gravel roads will also be constructed to provide access to all facility locations (e.g., tailings cells, evaporation ponds, water well field, etc.).

Energy Fuels commissioned a study to assess future traffic conditions at the site access point along Highway 90 in consideration of new Project traffic during construction and operation (TurnKey 2008). Based on the results of the assessment, conducted according to Colorado Department of Transportation ("CDOT") criteria, a left-turn deceleration lane for westbound traffic on Highway 90 will be constructed so that the Project access operates safely. Additionally, a 10-foot wide shoulder will be constructed along the south side (eastbound side) of Highway 90, east of the site access point. The highway will be widened along a length of approximately 2,175 feet to accommodate these improvements. Additional warning signs may be placed along the highway on either side of the Project access point to warn vehicles of the truck traffic.

4.5.2 Buildings and Parking

The following discussion describes the preliminary designs for the proposed onsite buildings and parking facilities. Detailed building and parking designs will be submitted to the Montrose County Building Department for review and approval prior to construction.

Administration Facility

Energy Fuels will construct a 9,000 sf, single-story building to house its office facilities for both milling and mining personnel. The building is configured to allow for a 5,000-sf future expansion if necessary. The administration building will accommodate approximately 26 offices/work areas, three conference rooms, a training room, break room, storage and restroom facilities. Additionally, the building design includes a garage for the onsite ambulance. Figure 2, Site Plan, shows the building location and Figure 6, Administration Facility, provides the building and parking layouts.

Secondary Mill Buildings

Several metal buildings located next to the primary process facilities will support milling operations. These buildings include the Warehouse (10,000 sf), Laboratory/Change Room/Mill Offices Building (22,000 sf) and the Truck Maintenance Building (6,000 sf). Figure 2, Site Plan, shows the building locations and Figure 5, Mill Facility, provides the building and parking layouts.

Access to the mill will be limited to mill employees and authorized visitors. All personnel must enter and exit the mill restricted area (i.e., the Mill License boundary) through the Laboratory/Change Room/Mill Offices Building, where they will formally check in and check out.

Parking

During operations, the Project will employ approximately ~~95~~85 people and will operate three eight-hour shifts per day, seven days per week. Twenty-~~seven~~five employees will work straight days, five days per week. The remaining ~~68~~60 employees will make up four, ~~17~~15-person crews working rotating shifts. Therefore, Monday through Friday during the day shift, approximately ~~44~~40 people will be onsite and during all other shifts, approximately ~~17~~15 people will be on site.

Assuming that each employee drives separately to the site, a maximum of ~~61~~55 employee vehicles would be onsite at any one time. This scenario could occur during the shift changes at the beginning and end of the day shift, when the starting and ending shifts (two crews) and the straight-day employees are on site at the same time.

Based on this worse case scenario, with seven straight day shift employees and the ~~17~~15-person crews parking at the mill facility, and providing additional parking for vendors and visitors, the parking lot at the administration building must accommodate approximately 43 vehicles. Nonetheless, Montrose County development standards require 62 spaces for a "professional office" building having 9,000 sf of gross floor area, and four disabled accessible spaces, including one van-accessible space, for a parking lot with 51 to 75 regular spaces. Therefore, the preliminary parking lot design for the Administration Facility provides 62 regular spaces, three disabled accessible spaces and one van-accessible space. The parking lot will be surfaced with gravel with the exception of the disabled accessible parking area, which will be paved with asphaltic concrete.

The area south of the secondary mill buildings will be used for parking at the mill facility. The parking area will accommodate the personal vehicles of the ~~17~~15-person crews and the seven straight day employees working in the mill, as well as company vehicles, and vendors accessing the buildings. Therefore, the preliminary parking lot design at the mill buildings provides 32 regular spaces, two disabled accessible spaces and one van-accessible space. The parking lot will be surfaced with gravel with the exception of the disabled accessible parking area, which will be paved with asphaltic concrete.

4.5.3 Power and Heating Systems

San Miguel Power Association, Inc. ("San Miguel") will supply electric power to the Project via an existing 69 kilovolt ("kV") overhead transmission line or an existing 26.5 kV distribution line paralleling Highway 90. San Miguel will install a new overhead power line connecting the

existing line to the mill via the utility corridor on the east edge of the Piñon Ridge Property (the "Property"). Refer to Figure 2, Site Plan. Additionally, San Miguel will construct and own the required onsite substation, from which power will be transformed to 4.16 kV for the mill and 13.8 volts for the Administration Facility. A 4.16 kV (2,000 kilowatt) diesel-powered generator, located at the mill, will provide backup power to operate the critical mill facilities during line outages.

Small (500 to 2,000 sf) concrete block electrical rooms will be constructed at each of the primary mill buildings to house the electrical breakers for the various pumps, mixers and other mill equipment. These rooms will be equipped with air conditioning units to maintain positive pressure in the rooms.

Propane will be used to heat the Administration Facility and mill buildings, and either propane or electricity will be used to heat the steam boilers used in the processing circuit. A natural gas line may be installed to the mill later if the operating income of the mill justifies the added capital cost of installing six to seven miles of new feeder line.

4.5.4 Water Supply System

The estimated average water requirement for the Project is ~~300~~144 gallons per minute or ~~484~~232 acre-feet per year to support the milling process, dust suppression requirements, washrooms, truck wash, fire suppression systems, and other miscellaneous uses. Most of the water will be used for processing purposes even though process water will be recycled wherever feasible to minimize consumption. The planned water source is groundwater, which will be pumped from a series of onsite and adjacent offsite deep production wells. ~~The locations of two of the onsite production wells (Well PW-1 and PW-2) have been determined (see Figure 2, Site Plan). Energy Fuels is currently conducting well and aquifer tests to determine the number and location of additional wells necessary to provide the required water supply.~~ Energy Fuels has installed three production wells to date, including Wells PW-1 and PW-2 on the south side of the Property and Well PW-3 on adjacent private land west of the Property. Figure 7, Water Well Locations, shows the locations of these existing production wells. Appendix H, Cooper/DeJohn Water Agreement, provides the water exploration agreement between Energy Fuels and the landowner of the adjacent property.

Wells PW-1, PW-2 and PW-3 are screened across the contact between the Chinle and Moenkopi Formations and are 380, 420, and 380 feet deep, respectively. The intercepted aquifer extends to the northwest and southeast along the toe of Davis Mesa and to the southwest under the mesa. The aquifer does not extend to the northeast under the mill site. The three wells sustained pumping rates of 52, 10, and 68 gallons per minute (130 gallons per minute total) over a two-day period when recently tested. Energy Fuels plans to install two additional wells (Wells PW-4 and PW-5) prior to the start of mill construction to supply the ~~150~~144 gallons per minute needed for construction and operation of the initial 500-tpd mill facility. ~~Future expansion of the mill to 1,000 tpd would require further expansion of the water supply system to achieve the 300 gallons per minute needed to process the higher throughput of ore.~~ Energy Fuels has also arranged for a contingency water supply from the town of Naturita in the event that the well field cannot sustain the full 144 gallons per minute needed to operate the mill. Additional information regarding the proposed water supply is provided in the April 2009 Addendum to the Special Use Permit Application (Water Supply Addendum).

There are no neighboring wells in the immediate vicinity of the Project that could be affected by the proposed well field. The nearest known wells to the Project are shown on Figure 7 and listed in the Table 1, Water Wells in Project Vicinity. Well A, located 1.4 miles northeast of the nearest production well, is completed in a different formation to a depth of 213 feet and is reportedly dry. Wells B, C, and D are 280 to 320 feet deep and are located between 2.8 and 4.5 miles southeast of the closest production well. Wells E and F, one of which is dry and the other an intermittent producer, are located approximately 2.5 miles northwest of the closest production well and are both reported to be 160 feet deep. Wells B, C and D are the only wells believed to be in the same aquifer as the proposed production wells. A recently conducted pumping test documents that, radii of groundwater drainage into the pumping wells extended only 500 to 1,000 feet (i.e., 0.1 to 0.2 mile). Furthermore, preliminary studies indicate that northeast to southwest trending faults in the region tend to compartmentalize the aquifer, making it very unlikely that pumping of the proposed production well field would impact any of the known wells in the vicinity.

Table 1
Water Wells in Project Vicinity

Well I.D.	Owner	Permit Number	Well Depth (feet)	Depth to Water (feet)	Distance From Closest Production Well (miles)
A	E. Huston	36544	213	Dry	1.4
B	BLM	258704	280	168	2.8
C	Fehlmann / Davis	269575	302	158	3.3
D	S. Hurdle	226684	320	134	4.5
E	Blackburn Ranches	86582	160	Varies	2.5
F	Blackburn Ranchettes	86583	160	Dry	2.5

Note: Depths and distances are approximate.

Water will be pumped from the wells to a 300,000-gallon raw water storage tank. This tank will supply water to process components, dust suppression systems at the ore pad facility, the truck wash, fire hydrants and water trucks. Energy Fuels will also install a separate potable water system using either the onsite water supply or water imported to the site for use in the change facilities and restrooms. All water systems will be designed according to the state and county requirements.

4.5.5 Septic Systems

The administration building will have restroom facilities and the mill will have both restroom and shower facilities. The shower stalls will be located in the mill change rooms. Effluent from the sanitary facilities will flow by gravity to engineered leach field septic systems designed according to state and county health and sanitation requirements regarding sewage disposal. Separate septic systems will be required for the mill and administration building. The septic system locations and designs will be determined during the final design of the buildings. If allowed by Montrose County, a gray-water system would also be installed at the mill to collect and recycle water from the showers and bathroom sinks.

4.5.6 Stormwater Systems

The mill, ore pad, tailings cells, and evaporation ponds are designed as "zero discharge" facilities. Precipitation and stormwater runoff that contacts these areas will be contained on site in lined ponds or cells and recycled for use in the mill. Precipitation and runoff from the surrounding undisturbed/unimproved areas will be diverted around the Facility into the existing drainage network. Stormwater runoff from the Administration Facility and other site structures not within the footprint of the mill, ore pad, tailings cells and the evaporation ponds (e.g., monitoring stations, water supply well field, secondary roads) will be handled using best management practices ("BMPs") for stormwater and erosion control. These measures may include surface water diversion channels, energy dissipating structures, slope protection and sediment catchment basins. The proposed drainage diversions, ditches and culverts are designed for the 100-year, 24-hour storm volume and peak discharge. Figure 8, Preliminary Site Grading and Drainage Plan, shows the proposed site grading, stormwater controls and flow directions.

Stormwater runoff from the mill area will flow to the West Stormwater Pond and runoff from the ore pad area will flow to the East Stormwater Pond. The capacities of the East and West Stormwater Ponds are 4 acre-feet and 3 acre-feet, respectively. Both ponds are designed to retain (with no discharge) the 100-year, 24-hour storm volume. The pond designs include emergency overflow outlets, consisting of an HDPE pipe network, sized to convey the peak discharge from a 1,000-year storm event to the Evaporation Ponds for containment. Each pond will be lined with a geomembrane.

The CDPHE Water Quality Control Division will regulate stormwater discharges under a general permit. Prior to construction, Energy Fuels will prepare a Stormwater Management Plan ("SWMP") for the site, which will include monitoring of contained and diverted stormwater.

4.5.7 Security Systems

The Property boundary is currently fenced with barbed wire to allow for livestock grazing. CDPHE will require that the portion of the site that is licensed for uranium processing be surrounded by chain-link fence topped with barbed wire. This security fence will be posted with warning signs indicating that unauthorized access is not allowed and points of access will be strictly controlled. A secondary road will be constructed around the perimeter of the fence to allow for daily security inspections.

A guardhouse will be installed near the entrance of the site for the inspection and control of traffic entering the Facility. The guardhouse will be manned 24 hours per day, seven days per week. Only authorized personnel and vehicles will be allowed to continue beyond the gate to the mill area. Ore deliveries will be directed to a truck scale and then to either the ore pad dumping platform or directly onto the ore pad. Delivery of process reagents and fuel will be directed to the south side of the mill to either the Reagent Unloading Area or warehouse, as appropriate. These vehicles will not be allowed to enter the mill restricted area, which corresponds to the licensed portion of the site where access is controlled and radiation is closely monitored.

Access to the restricted area will be limited to mill employees and authorized visitors. All personnel will enter the mill through the Laboratory/Change Room/Mill Offices Building

where they will be required to check in and put on radiation badges before entering the mill restricted area. Upon the conclusion of each shift, employees will be scanned with a handheld gamma meter before they can check out. If the scanned readings indicate radioactivity above background levels, the employees will be required to clean their clothes (typically shoes) and/or shower before being rescanned.

4.5.8 Emergency Management

A firewater loop, with hydrants at key locations, will be constructed as a component of the overall fire protection system. The raw water storage tank or a separate tank dedicated to fire protection will feed the firewater loop. Buildings will be equipped with sprinkler systems and fire extinguishers in accordance with building codes and county requirements.

Emergency management plans for the Facility will be prepared as part of the licensing effort with CDPHE. Because of potential radiation emissions associated with an emergency, Energy Fuels anticipates that most emergency response actions will be handled by trained employees under the direction of the Facility's Radiation Safety Officer. Energy Fuels will develop these response plans in consultation with local law enforcement agencies and fire departments, so that the roles of all involved personnel are clearly defined, potential chemical and radiation risks are quantified and adequate equipment is available to support emergency response efforts.

The trucking companies transporting ore, chemical reagents and fuel to the Facility and yellowcake and vanadium oxide from the Facility to other processing facilities are required under USDOT regulations to have an emergency response plan in place for responding to accidents and cargo spills. As part of its contracting program, Energy Fuels will verify that these plans are in place and anticipates that carriers of ore, yellowcake and other low-level radiation shipments will incorporate the Energy Fuels emergency response teams into their emergency management planning. The Energy Fuels response teams will have expertise in radiation control and will have the necessary specialized monitoring equipment that is generally not available to most law enforcement agencies, fire departments, and other first responders.

4.6 Environmental Protection

Energy Fuels selected the Piñon Ridge site for a mill facility based on an evaluation of seven potential sites conducted by several engineering and environmental consulting firms. The company also consulted informally with state regulators and local community leaders prior to purchasing the Property. From an environmental perspective, the site appears ideal since no ground or surface waters are in close proximity, thereby greatly reducing the potential risk of water quality degradation. The groundwater table is greater than 450 feet below ground surface at the proposed locations of the mill, tailings cells and evaporation ponds, and there are no rivers or perennial streams near the Property. The site is also relatively remote with the nearest downwind resident located more than three miles east of the Property boundary.

Although the environmental risk at the site is low, Energy Fuels will still be required to meet strict water and air quality control standards. All process and waste solutions must be contained within the mill and waste disposal system components. This containment is verified through monitoring of surface water, groundwater and soils prior to operations (i.e., current baseline studies), during operations and after the Facility is shutdown and decommissioned.

Air emissions are minimized through use of modern technology and pollution control equipment (e.g., baghouses, scrubbers). Air emissions are monitored on and off site and must meet state regulations for fugitive dust (i.e., PM-10) and radiation at the Property boundary. Additional details regarding existing and proposed environmental control measures for the Project are presented in Appendix E, Environmental Protection Measures.

Energy Fuels has incorporated measures into the Facility design and proposed operations to minimize visual and noise impacts. As previously discussed, the visual impact from State Highway 90 will be reduced considerably since the mill has been positioned approximately ¾-mile from the highway and the tailing cells and evaporation ponds are low-profile facilities with the majority of their storage capacity located below existing ground level. Additionally, the outdoor lighting fixtures at the Facility will be shielded and directed towards the ground or the surface they illuminate in order to eliminate glare and safeguard the existing rural atmosphere. The ore unloading and loading activities will be the primary source of noise generated onsite; and more specifically, the backup alarms from the front-end loaders and highway trucks. Other operations, which generate high noise levels, will be located within enclosed buildings (e.g., the SAG Mill). For comparison, the estimated maximum noise level occurring at the Property boundary was modeled using conservative assumptions and determined to be 60 decibels ("dBA"). This level is well below the most restrictive maximum permissible noise level of 75 dBA established by Montrose County for gravel mining operations located within 1,320 feet of an existing residence or an existing platted subdivision. The estimated maximum noise level at the Property boundary occurs at the south end of the site, approximately 800 feet south of the mill facility.

4.7 Closure and Reclamation

CDPHE will require the submittal of detailed closure and reclamation plans for the Facility prior to issuing the Mill License. Energy Fuels will be required to post a reclamation bond that will cover the cost of a third-party contractor to close and reclaim the site in the event that Energy Fuels is unable to perform the work. The bond will also include costs for state administration of the Project, contingencies, and long-term maintenance and monitoring as required by U.S. Nuclear Regulatory Commission ("NRC") guidelines. This bond will remain in full force during operations and will be periodically updated for inflation and changing onsite conditions (e.g., mill expansion, interim reclamation).

Energy Fuels will commence closure and reclamation activities following the productive life of the Facility. Additionally, and concurrent with operations, Energy Fuels will close and reclaim individual tailing cells once they reach full capacity. Closure and reclamation activities are anticipated to occur over a three-year period; however, the schedule for final closure will be subject to the results of air and water quality monitoring, successful reestablishment of vegetation and erosion controls, and meeting all regulatory requirements. The objectives of the closure and reclamation plan are to establish a stable long-term land configuration and repository for any residual radioactive materials, while returning the remainder of the site to its original land use of livestock grazing with a self-sustaining ecosystem. Meeting these objectives will ensure environmental protection and public safety.

The primary components of closure and reclamation activities include:

- Decommissioning and removal/disposal of all process equipment and facilities;

- Decommissioning of the ore pad and waste management facilities;
- Removal of ancillary facilities and infrastructure;
- Capping the tailings cells with engineered, soil covers;
- Recontouring and revegetation of disturbed areas; and
- Post-closure monitoring of revegetation performance, water and air quality.

Once the Facility meets closure requirements, the portion of the Property that contains the tailings cells will be transferred to either the State of Colorado or the U.S. Department of Energy ("DOE") for long-term monitoring and maintenance. The remainder of the site will be released to unrestricted use. Energy Fuels will provide the government with the funds necessary to monitor and maintain the site. The existing Durita site, a former uranium heap leach operation located several miles west of the intersection of Highway 90 and Highway 141, is a good example of a facility that will ultimately be transferred to the State or DOE for long-term monitoring and maintenance. Additional details regarding proposed closure and reclamation procedures are provided in Appendix F, Closure and Reclamation Measures.

4.8 Monitoring Programs

4.8.1 Baseline Monitoring

Energy Fuels is currently conducting baseline monitoring of the Property. This includes drilling and trenching to characterize the geology, installation of monitoring wells to characterize groundwater, mapping and testing of physical soil conditions, and assessment of seismic potential. Surface water sampling stations have been installed to allow for collection and analysis of precipitation runoff. Background radiation levels have been measured throughout the site on three separate occasions. Two onsite meteorological stations have been installed to measure wind speed and direction, temperature, evaporation levels and other climate-related parameters. Five air monitoring stations have been installed including three on site and two off site. A series of groundwater monitoring wells have been installed throughout the site. Vegetation and wildlife studies have been completed on a quarterly basis and biota has been collected and analyzed for pre-milling background radiation levels. The intent of this comprehensive baseline monitoring program is to establish background conditions that can later be used to assess and mitigate any environmental impacts from milling operations.

In a letter dated August 15, 2008, the Colorado Division of Wildlife provided the Montrose County Land Use Department with comments regarding potential impacts to wildlife associated with the proposed construction and operation of the Facility. As an initial response to those comments, Appendix I, Response to Colorado Division of Wildlife Letter, provides a summary of the ecological baseline studies conducted to date along with findings.

4.8.2 Operational Monitoring

Energy Fuels will develop detailed operational plans for inspecting and monitoring the Project facilities and systems designed to protect the environment and human health during operations. These plans will include procedures for monitoring air and water quality with periodic reporting to the CDPHE, and the establishment and ongoing review of protocol for conducting work tasks safely. Appendix G, Radiation and Worker/Public Safety, provides a

discussion regarding proposed safeguards to protect workers and the public from radiation exposure.

4.8.3 Post-Closure Monitoring

Post-closure monitoring and maintenance will include an ongoing assessment of air and water quality and periodic inspections to ensure the integrity of soil covers, erosion control structures and successful reestablishment of vegetation. Water and air quality monitoring results will be reported to the CDPHE. Corrective measures will be implemented as necessary to repair soil covers, control erosion of the reclaimed areas and meet other post-closure requirements established by CDPHE.

4.9 Schedule

Construction of the Facility would commence following full regulatory approval, which is anticipated by early ~~to mid 2010~~2011. Construction activities would take approximately 10 months to complete. The facility will begin to receive and store ore once construction of the ore pad is complete. The proposed operating life of the Facility is ~~20 to 30~~40 years beginning ~~by~~in 2011 or 2012.

Once the mill is no longer operating, closure and reclamation of the Facility would begin. Closure and reclamation activities would take place approximately over a three-year period. It is expected that post-closure monitoring and maintenance will be required for a period of at least five years beyond reclamation before the site can be transferred to the State or the DOE for long-term monitoring and maintenance.

5.0 List of References

Montrose County Land Use Department (Montrose County), 2003. "Montrose County Zoning Resolution," amended December.

TurnKey Consulting, LLC (TurnKey), 2008. "Final Traffic Assessment," March.