

License Decision

Based on the analyses conducted and documented in the Decision Analysis and Environmental Impact Analysis, the department is granting a radioactive materials license for a 500 ton-per-day uranium mill to Energy Fuels Resources Corporation for the Piñon Ridge project.

The department's evaluation includes a determination of the project's ability to meet statutory, regulatory, and guidance requirements and sound engineering practices. The mill design and operating procedures are keyed to these requirements, as discussed in this document. Furthermore, potential impacts to the environment, economic and social features, and transportation have been considered in the decision and mitigation measures identified, where applicable, as discussed in the Environmental Impact Analysis.

License Authorizations and Conditions

The facility preliminary license is being issued pursuant to Part 3 of the regulations with all of the conditions authorizing the receipt, possession, use, and transfer of radioactive material that are necessary for an operational uranium recovery facility, along with other additional requirements and conditions that the department has deemed appropriate or necessary for licensees engaged in uranium recovery operations.

The license is subject to all the provisions of the Radiation Control Act, now or hereafter in effect, and to all rules, regulations, and orders of the department. Additionally, the license contains a number of pre-requisite conditions that detail requirements that the department has deemed appropriate or necessary that must be met by the licensee during the pre-construction, construction, and pre-operational phases of facility development. As the facility moves through these phases and moves closer to the operational phase, the license will be amended to revise, remove, and/or add additional conditions to better reflect the current conditions of the facility.

Throughout the entire period of time in which the license is active, the department will incorporate into the license additional requirements and conditions with respect to the licensee's receipt, possession, use, and transfer of radioactive material, as it deems appropriate or necessary in order to minimize danger to public health and safety or property and prevent loss or theft of material. This includes conditions that may require additional reports and record maintenance, and to provide for additional inspections under the license as may be appropriate or necessary.

The license is attached at the end of this document, and descriptions of some of the license conditions are as follows:

Authorizations:

Approval is given for a 500 ton-per-day milling operation,

- to possess and use not more than 100,000 short tons of unrefined and unprocessed ore,
- to process, store, and distribute uranium yellowcake in quantities not to exceed 150 metric tons, and
- to possess and store within the on-site impoundments not more than 1,850,000 cubic yards of tailings or wastes.

Pre-requisite Conditions:

Pre-construction:

- all applicable permits and other authorizations of local, state and federal agencies having authority over health, safety, and environmental protection
- Department approval of final design and construction plans, including QA/QC, liner testing, etc.

Pre-operational (prior to receipt of any radioactive material):

- Radiation and worker protection procedures and equipment in place and personnel trained in their use.
- All radiation and contamination survey instrumentation and air sampler equipment on site, calibrated, and personnel trained in their use.
- Conduct at least two emergency response exercises involving two different incident scenarios, and involve off-site response agencies in one or more.
- Environmental monitoring procedures and equipment in place and personnel trained in their use.

Routine operations require worker training and monitoring, environmental monitoring, security, documentation and reporting, facility maintenance, material control, emergency or spill response, and other conditions.

The licensee shall maintain compliance in regard to financial assurance in accordance with the requirements of the regulations:

- i. a department-approved financial warranty for decommissioning for \$11,070,890 provided as the project is developed (\$1,373,900 with the final license; then \$2,898,260, \$6,401,920, and \$396,810 added in six month increments during construction and prior to receipt of ore) and shall remain in effect for the duration of the license;
- ii. a long-term care fund in the amount of \$827,590 deposited with the state treasury with the final license issuance, and
- iii. a Decommissioning Funding Plan will be submitted prior to approval of the final license.

Decommissioning Cost Estimate and Financial Warranty

The Energy Fuels decommissioning cost estimate is shown in Table 8 and totaled \$11,898,480. The department agrees with this total, but will reevaluate the estimate as

mill construction is completed and operations begin. The estimate is required to be revisited annually once the mill is in operation.

Table 8: Decommissioning Cost Estimate Summary

Item Number	Category	Cost Estimate (\$)
Project Management (Owner's Representative)		
1)	Project Management, Engineering And Overhead	720,410
2)	Characterize Site Contamination Limits	334,260
3a)	Radiation & Ind. Hygiene Programs - Personnel	315,900
3b)	Rad. & Ind. Hyg. Programs - Sample Analysis	<u>263,950</u>
	PM Subtotal	\$1,634,520
Construction Contractor		
4)	Contractor Mobilization / Demobilization	128,880
5)	Decontamination of Facility	90,000
6)	Dewater Tailings	163,350
7)	Re-Grade Tailings	18,450
8)	Mill Site Demolition	
8a)	Dismantle Facilities for Disposal	900,000
8b)	Facilities Disposal in Impoundment	255,130
8c)	Ore Pad Disposal in Impoundment	21,960
8d)	Strip and Place Mill Facility Soils in Impoundment	18,490
8e)	Strip and Place Other Site Soils in Impoundment	17,640
8f)	Strip and Place Evaporation Pond Materials	649,220
9)	Construct Interim Fill Cover	144,000
10)	Grout Seal Leak Impoundment Leak Detection	14,270
11)	Construct Tailings Impoundment Cover:	
11a)	Radon Barrier	548,100
11b)	Capillary Break Layer	1,597,740
11c)	Capillary Break Filter Layer	798,870
11d)	Bio-Intrusion Layer	354,740
11e)	Erosion Barrier	120,510
11f)	Erosion Barrier Rock Mulch Layer	798,870
11g)	Rock Blanket	789,400
11h)	Embankment Toe Protection	394,620
11i)	Drainage Channel Filter Layer	7,820
11j)	Drainage Channel Rip Rap	23,160
12)	Perform Site Grading:	
12a)	Mill And Ore Pad	20,250
12b)	Roads	405
12c)	General	90
13)	Place Topsoil: All Remaining Areas	93,510
14)	Seed and Re-vegetate:	
14a)	Impoundment	70,380
14b)	All Remaining Areas	146,970
15)	Construction Contractor Support	<u>637,875</u>
	Construction Contract Subtotal	<u>\$8,824,700</u>
	Subtotal: Project Management and Construction Contractor	\$10,459,220
16)	Performance Bond (1%)	104,590
17)	Post Closure Monitoring and Maintenance	233,090
18)	Decommissioning of Monitoring Systems	59,130
19)	DOE Long Term Care	827,590
20)	State Administration Fee	<u>214,860</u>
	Total:	\$11,898,480

(Piñon Ridge Mill Decommissioning and Reclamation Cost Estimate, October 2009)

The department reviewed the decommissioning activities and project schedule to determine when decommissioning financial warranties were required. Based on this review, a schedule for providing the decommissioning warranty amounts to be commensurate with the disturbed land and reclamation needs was included in the license, as follows:

Prior to final license (assumed as March 2010), the full long-term care amount (\$827,590) will be deposited and warranty for \$1,373,900 will be provided. This represents tasks 8e, 8f and 20; and 50 percent of tasks 1 and 3b.

Six months after final license issued, an additional \$2,898,260 is due, representing tasks 4, 5, 6, 7, 8a, 8b, 8c and 8d, and 50% of tasks 1, 2, 3a, 3b, 12a, 12b, 12c, 13, 14a, 14b and 15.

Six months later, an additional \$6,401,920 is due, representing tasks 9, 10, 11a, 11b, 11c, 11d, 11e, 11f, 11g, 11h, 11i and 11j, and 50 percent of tasks 2, 3a, 12a, 12b, 12c, 13, 14a, 14b and 15.

Six months later, the final increment of \$396,810 is due, representing tasks 16, 17, and 18.

As part of the decommissioning warranty review, the indirect cost estimates will be re-evaluated for consistency with other sites.