



PATHFINDER

October 24, 2005

Mr. Gary Janosko, Branch Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U. S. Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, Maryland 20852

Ref: Revised surety estimate for the Lucky Mc mill tailings site
Docket No. 40-2259, Source Material License No. SUA-672

Dear Mr. Janosko:

The enclosed revision of the Lucky Mc mill tailings site surety estimate is submitted in fulfillment of the requirement of Condition 27 of the referenced license. Due to an oversight we missed the license-specified submittal date of September 15. We apologize for the tardiness of this revised estimate – we were heavily involved in completing various field projects this fall and simply overlooked it.

This surety estimate reflects the completion of the site closure, including the decommissioning of the ground water corrective action system and all other site wells not required by the license for monitoring purposes. The only remaining site work is the placement of DOE transfer boundary corner markers, placement of the site granite monument, and some limited fence work. Also itemized in this estimate are legal expenses, primarily related to the site transfer to DOE, and the remaining monitoring costs.

Pathfinder hereby requests an amendment to the referenced license to incorporate into the Lucky Mc license a revised surety amount for tailings and mill site reclamation as required by condition 27. A summary of the adjusted surety amount is shown below.

A

LUCKY Mc SITE

<u>ACTIVITY</u>	<u>CURRENT SURETY</u>	<u>PROPOSED SURETY</u>
1. Mill Decommissioning	\$0	\$0
2. Tailings Reclamation	140,748	59,648
<u>3. Long Term Surveillance</u>	<u>705,318</u>	<u>734,121</u>
SUBTOTAL	\$ 846,066	\$ 793,769
<u>4. Contingency (15% of 1 & 2)</u>	<u>21,112</u>	<u>8,947</u>
TOTAL	\$867,178	\$ 802,716

Increase/(Decrease) (\$ 64,462)

The long term surveillance fee has been increased, consistent with the latest available CPI adjustment (September, 2005). Supporting information for the recalculated surety estimate is enclosed (two copies). Upon your written approval, we will proceed to obtain a rider for the existing Letter-of-Credit to reflect the revised surety amount.

Sincerely,



T. W. Hardgrove
Manager, Reclamation Operations

Enclosure

Cc: J. Whitten, USNRC Region IV
D. L. Wichers

LUCKY Mc TAILINGS AND MILL SITE RECLAMATION COST ESTIMATE
October 24, 2005

Table 1 presents a cost estimate summary for the reclamation of the Lucky Mc mill site and tailings to 10 CFR 40 Appendix A standards. All site work has been completed with the exception of the installation of site boundary markers and some fencing.

The following text provides supporting information for the unit costs or total costs developed for the limited number of remaining site activities.

A. Re-vegetation:

All re-vegetation work has been completed.

B. Construction Management and Miscellaneous Expenses

Site construction has been completed; therefore, no costs are associated with construction management and incidental overhead.

Miscellaneous expenses are estimated as follows:

- 1) Engineering design/plan changes - The planned work has been completed as it relates to the tailings reclamation plan. Therefore, no cost is assigned to this item.
- 2) Mobilization - All site work has been completed and any contractors utilized in 2005 have already demobilized from the site.
- 3) Legal Expenses - An estimated \$10,000.00 is applied to this activity. This is exclusive of the license termination activities, including site transfer to DOE, discussed below.
- 4) Power - All utilities for the site have been disconnected coincident with the demolition of the office and all other facilities.
- 5) Completion report preparation - The completion report has been submitted to the NRC (April, 2005).
- 6) License termination activities - The cost to terminate the NRC license and transfer the site to DOE is estimated as follows:

Site final survey, survey caps, sign & monument -	\$ 6,500
Legal expenses -	5,000
Labor - 200 hrs. at \$76/hr -	15,200
Miscellaneous -	2,000
Total	<u>\$28,700</u>

C. Groundwater Restoration:

Alternate concentration limits (ACLs) have been approved for the site. The corrective action program has been terminated for the site.

Well Plugging:

Exclusive of the seven wells monitored as specified in the license, all wells associated with the site have been abandoned by plugging with bentonite chips, concrete capping three feet below the land surface, and soil backfilling to the surface. All related surface equipment such as well sheds, power lines, etc. have been removed.

D. Fencing:

The existing restricted area fence will be repaired as needed over its entire length, and it will be modified in the vicinity of the No. 8 production well (south end of site) prior to site transfer to the DOE. The modification at the south end will require 2,800 feet of new fencing. Based upon recent contracted fencing work, a unit cost of \$1.30/linear ft. of fence is appropriate, including materials and labor. The repair of the existing fence is estimated to cost \$0.25/linear foot.

$$2,800 \text{ ft} \times \$1.30/\text{ft} = \$3,640.$$

$$23,000 \text{ ft.} \times \$0.25/\text{ft} = \$5,750.$$

$$\text{Total fencing cost} = \$3,640 + \$5,750 = \$9,390.$$

E. Radiological Survey and Environmental Monitoring:

Post Reclamation Ra226 Survey:

The post reclamation gamma/Ra226 survey field work has been completed. A report on the survey and any subsequent cleanup effort was included in the TRP completion report (April, 2005).

Environmental Monitoring:

An environmental monitoring program will consist solely of the quarterly sampling of seven monitor wells. Monitoring will continue until the anticipated site transfer to DOE by late 2005 or early 2006. Labor costs, semi-annual report preparation, and other miscellaneous expenses are based on the use of a consultant at current rates that Pathfinder has paid.

Labor and Program Administration -

1 technician for 24 hrs/qtr for two quarters:
 $24 \text{ hrs/qtr} \times 2 \text{ qtrs} \times \$44.00/\text{hr} = \$2,112.$

Administration and general overhead, and general engineering/consultant oversight (including report preparation) -

Administration/overhead = $\$500/\text{mo} \times 12 \text{ mo/yr}$
 $\times 0.5 \text{ yr} = \$3,000.$

Engineering/consultants = $\$400/\text{mo} \times 12 \text{ mo/yr}$
 $\times 0.5 \text{ yr} = \$2,400.$

Analytical Work -

Based upon current costs for the outside analytical work done at Lucky Mc to maintain the environmental monitoring program as required by the license (post-ACLs approval), the following would apply:

	<u>Quarterly Cost</u>
Water sample analyses	\$ 2,023

Total Analytical Costs for 2 quarters:

$\$2,023/\text{qtr} \times 2 \text{ qtrs} = \$4,046.$

Total Costs for Environmental Monitoring:

$\$2,112 + \$3,000 + \$2,400 + \$4,046 = \$11,558.$

F. Inflation Adjustment of the Long Term Surveillance Fee

Consumer Price Index, all urban consumers:

September, 2005 = 198.8

December, 1978 = 67.7

$198.8/67.7 \times \$250,000 = \$734,121.$

**Table 1. Pathfinder Mines Corporation, Lucky Mc Mine
Tailing and Mill Site Reclamation Cost Estimate Summary**

Activity	Quantity	Unit Cost (\$)	Cost	Footnote*
Regrading:	0 CY	0.73 /CY	\$0	
Tailings/millsite cover & protection:				
Radon barrier placement	0 CY	1.30 /CY	\$0	
Filter bed stockpiled on site	0 CY	2.00 /CY	\$0	
Rock mulch stockpiled on site	0 CY	2.00 /CY	\$0	
Small riprap stockpiled on site	0 CY	4.50 /CY	\$0	
Large riprap placement	0 CY	4.50 /CY	\$0	
Topsoil - Borrows	0 CY	0.70 /CY	\$0	
Revegetation:				
Discing & seeding	0 AC	99.00 /AC	\$0	
SUBTOTAL	—	—	\$0	
Contractors' mobilization/demobilization			\$0	
TOTAL RECLAMATION CONTRACTOR COST			\$0	
Construction management			\$0	
Other miscellaneous expenses			\$38,700	B
Completion Report Preparation			\$0	
Groundwater restoration			\$0	
Fencing			\$9,390	D
Radiological surveys			\$0	
Environmental monitoring			\$11,558	E
TOTAL			\$59,648	
Contingency (15%)			\$8,947	
Site Surveillance			\$734,121	
GRAND TOTAL			\$802,716	

* See the corresponding text section for an explanation of the derivation of costs.
All tailings-related regrading and cover/erosion protection placement has been completed.