

February 24, 2005

Mr. T. W. Hardgrove  
Pathfinder Mines Corporation  
935 Pendell Boulevard  
P.O. Box 730  
Mills, WY 82644

SUBJECT: PATHFINDER MINES CORPORATION SHIRLEY BASIN SITE, SUA-442,  
AMENDMENT 56 - ANNUAL ADJUSTMENT OF THE SURETY AMOUNT  
(TAC LU0064)

Dear Mr. Hardgrove:

Pathfinder Mines Corporation (PMC) submitted, by letter dated September 15, 2004, a request to reduce its required surety amount. The request was revised by letter dated January 20, 2005, for a decrease of \$3,525,092 from the expected value to reflect a recalculation based on the revised cost estimate and credit for work completed through the end of 2004. The proposed surety amount is \$5,496,957. The Nuclear Regulatory Commission (NRC) staff has determined that PMC has adequately demonstrated that the proposed value of the surety is appropriate. However, the quantity of work completed in November and December could not be confirmed, and remain subject to review, and surety adjustment if necessary, pending the results of the next site inspection. The staff's technical evaluation of this request is provided as Enclosure 1.

The surety amount in License Condition 27 has been revised and the amended license is provided as Enclosure 2. This licensing action meets the categorical exclusion provision for surety changes in 10 CFR Part 51.22(c)(10)(i). Therefore, this amendment does not require either an environmental assessment or an environmental report from the licensee.

If you have any questions regarding this letter, or the enclosures, please contact the Project Manager for your facility, John Lusher by phone at (301) 415-7694 or by e-mail at [jlh@nrc.gov](mailto:jlh@nrc.gov).

In accordance with 10 CFR 2.390 of the Nuclear Regulatory Commission's (NRC) "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/

Gary S. Janosko, Chief  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 40-6622  
License No. SUA-442

Enclosures: 1. Surety Technical Evaluation Report  
2. License Amendment No. 56

cc: D. Wichers, COGEMA  
A. Kleinrath, DOE  
W. Hogg, WDEQ, LQD District I

T. W. Hardgrove

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Gary S. Janosko, Chief  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety  
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Office of Nuclear Material Safety  
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A. Kleinrath, DOE  
W. Hogg, WDEQ LQD District I

**CLOSES TAC LU0064**

DISTRIBUTION:  
JWhitten,RIV      FCFB r/f      MMoriarty, IMNS

\*See previous concurrence

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<b>NAME</b>	J Lusher*		BGarrett*		RNelson		GJanosko	
<b>DATE</b>	2/ 22 /05		2/ 22 /05		2/ 24/05		2/ 24/05	

**OFFICIAL RECORD COPY**

**TECHNICAL EVALUATION REPORT  
THE PATHFINDER MINES CORPORATION  
FOR THE SHIRLEY BASIN SITE  
WYOMING**

**DOCKET NO.:** 40-6622

**LICENSE NO.:** SUA-442

**DATE:** February 1, 2005

**FACILITY:** Pathfinder - Shirley Basin Tailings Site, Shirley Basin Mining District, Wyoming

**TECHNICAL REVIEWERS:** Jill Caverly, Elaine Brummett

**PROJECT MANAGER:** Elaine Brummett/John Lusher

**SUMMARY AND CONCLUSIONS:**

Pathfinder Mines Corporation (PMC) submitted, by letter dated September 15, 2004 (ML042660068), a request to reduce its required surety figure based on approved changes to the reclamation plan and updated cost estimates. The request was revised by letter dated January 20, 2005, for a decrease of \$3,525,092 from the expected value to reflect a recalculation based on the revised cost estimate and credit for work completed through the end of 2004. The proposed surety amount is \$5,496,957. The Nuclear Regulatory Commission (NRC) staff has reviewed the application and has determined that PMC has provided adequate justification for the reduction. Therefore, staff recommends approval of the proposed change.

**TECHNICAL EVALUATION:**

The staff has reviewed Pathfinder Mines Corporation's (PMC) revised cost estimate for completion of reclamation activities for the Shirley Basin uranium mill facility. In support of this review, the staff visited the site on October 12, 2004. Criteria 9 and 10 of 10 CFR Part 40, Appendix A, require the licensee to supply sufficient information to the U.S. Nuclear Regulatory Commission to verify that the amount of coverage provided by the financial assurance will permit the completion of all decontamination and reclamation of the site. Additionally, the cost estimates must be calculated on the basis of completion of all activities by a third party and must be updated annually.

The review was completed using the guidance contained in NUREG-1620, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailing Sites Under Title II of the Uranium Mill Tailings Radiation Control Act of 1978." The surety update was provided to NRC according to the license, three months before the anniversary date of December 15.

The proposed surety value reflects work completed in 2004 as well as changes associated with current costs. PMC provided updated unit costs based mainly on contract prices. Pathfinder states that all unit costs associated with material placement include machinery rental and operator costs. An additional labor rate of \$24.38 for a non-earth moving laborer was cited and justified. Based on a review of the PMC document, the staff concludes that the unit costs are reasonable and in line with regional rates.

The current estimate takes into account the material that has been placed, and the wells that

have been abandoned. The cost of future well abandonment was increased to reflect the state requirement to fill the entire casing with bentonite chips. Also, the re-vegetation estimate was increased to include off-tailings areas requiring stabilization.

In October 2004, staff performed a site visit to verify quantities needed for reclamation. Staff noted that the quantities appear compatible with the September 2004 estimates, to the extent verifiable, and the material volumes are justifiable for the current surety estimate.

The long-term surveillance was calculated correctly based on the November 2004, Consumer Price Index. In addition, a 15 percent contingency value for tailings reclamation was added to the total.

In summary, the proposed surety for the Shirley Basin Uranium Mill facility updates the previous surety with cost estimates that adequately reflect changes to the quantities, unit costs, and required contingencies and fees. However, the quantity of work completed in November and December could not be confirmed, and remain subject to review, and surety adjustment if necessary, pending the results of the next site inspection.

