



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005**

August 9, 2005

Mr. T. W. Hardgrove, Manager
Environmental & Regulatory Services
Pathfinder Mines Corporation
935 Pendell Blvd.
P.O. Box 730
Mills, Wyoming 82644

SUBJECT: NRC INSPECTION REPORT 040-02259/05-001 AND NOTICE OF VIOLATION

Dear Mr. Hardgrove:

On July 19, 2005, the NRC completed an inspection at your former Lucky Mc Uranium Mill site in Fremont County, Wyoming. The enclosed report presents the results of that inspection.

This inspection included a review of site status, decommissioning, management organization and controls, radiation protection, radioactive waste, and environmental monitoring. During this inspection interval, the Lucky Mc Uranium Mill site appeared to have received an appropriate level of management oversight. The inspection findings were presented to you at the conclusion of the onsite inspection. The enclosed report presents the results of that inspection.

Based on the results of this inspection, the NRC has determined that one violation of an NRC requirement occurred. The violation involved failure to release equipment or packages from the restricted area in accordance with the guidance entitled, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Materials," dated September 1984. The violation is of concern because it indicates that your organization has not released all equipment from the restricted area, as required by License Condition 18 of your source material license.

Pathfinder Mines Corporation is required to respond to this letter and should follow the instructions specified in the enclosed Notice of Violation in preparing your response. For your consideration and convenience, an excerpt from NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," is enclosed." The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be made 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> (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, please contact Ms. Judith Walker at (817) 860-8299 or the undersigned at (817) 860-8197.

Sincerely,

/RA Roberto Torres for/

Jack E. Whitten, Chief
Nuclear Materials Licensing Branch

Docket No.: 040-02259

License No.: SUA-672

Enclosures:

Notice of Violation

NRC Inspection Report 040-02259/05-001

NRC Information Notice 96-28

cc w/enclosure:

Mr. Robert Poyser

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Pathfinder Mines Corporation

-3-

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Wyoming Radiation Control Program Director

bcc w/enclosure (via ADAMS distrib.):

LDWert

RANelson

JBarto

JEWhitten

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KEGardin

NMLB

RIV Nuclear Materials File - 5th Floor

ADAMS: X Yes Initials: jlw SISP Review Complete
X Publicly Available X Non-Sensitive

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JLWalker	JEWhitten
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08/05/05	08/09/05

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ENCLOSURE 1

NOTICE OF VIOLATION

Pathfinder Mines Corporation
Former Lucky Mc Uranium Mill

Docket No. 040-02259
License No. SUA-672

During an NRC inspection conducted on July 19, 2005, a violation of NRC an requirement was identified. In accordance with Enforcement Policy and Procedure for NRC Enforcement Actions, the violation is listed below:

License No. SUA-672, Condition 18, states in part, that release of equipment or packages from the restricted area shall be in accordance with guidance entitled "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Materials," dated September 1984.

Contrary to the above, in the Calender Year 2004, the licensee released equipment from the restricted area for unrestricted use without following the required guidelines specified in License Condition 18.

This is a Severity Level IV violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Pathfinder Mines Corporation is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, with a copy to the Regional Administrator, Region IV, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; 040-02259/0005-001" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must

specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated this 9th Day of August 2005

ENCLOSURE

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No. 040-02259
License No. SUA-672
Report No. 040-02259/05-001
Licensee: Pathfinder Mines Corporation
Facility: Former Lucky Mc Uranium Mill
Location: Fremont County, Wyoming
Inspection Date: July 19, 2005
Inspector: Judith Walker, Health Physicist
Nuclear Materials Licensing Branch
Division of Nuclear Materials Safety
Approved By: Jack E. Whitten, Chief
Nuclear Materials Licensing Branch
Division of Nuclear Materials Safety
Attachment: Supplemental Information

EXECUTIVE SUMMARY

Former Lucky Mc Uranium Mill Site
NRC Inspection Report 040-02259/05-001

This inspection included a review of site status and decommissioning activities, management organization and controls, site radiation protection, waste management, and environmental monitoring.

Site Decommissioning Status

- The licensee had conducted site activities and decommissioning programs in accordance with the reclamation plan, the license, and applicable NRC regulations (Section 1).
- Site fences and gates were in good condition (Section 1).

Management Organization and Controls

- The licensee had maintained organization and management controls in accordance with requirements of the license. An appropriate number of staff members had maintained oversight of the reclamation activities (Section 2).
- The licensee had reviewed and maintained site procedures in accordance with the license (Section 2).

Radiation Protection

- The licensee had implemented a radiation protection program in accordance with the license, with one exception. This exception involved the licensee's failure to release equipment from the restricted area in accordance with the guidance specified in License Condition 18 of source material license SUA-672 (Section 3).
- The licensee had maintained occupational exposures for employees well below regulatory limits (Section 3).
- Site security and perimeter postings were appropriate (Section 3).

Environmental Protection and Radioactive Waste Management

- A review of the licensee's 10 CFR 40.65 semiannual effluent reports revealed that the facility had not released any radioactive material into the environment that exceeded the limits established in 10 CFR Part 20 (Section 4).
- The licensee had conducted the environmental monitoring, radioactive waste management, and groundwater corrective action program in accordance with license requirements (Section 4).

Report Details

1 Decommissioning Inspection Procedure for Uranium Mill Sites (87654) and Site Status

The Pathfinder Lucky Mc Uranium Mill operated from 1958 until 1988. Decommissioning activities on the mill site began in July 1993. As part of the reclamation process, the licensee characterized 210 acres as the affected windblown contaminated soil area. The licensee completed windblown soil cleanup activities, confirmatory surveys, and soil analyses for radium-226 in May 1997. As part of the cleanup activities approximately 550,000 cubic yards of windblown material were removed and placed at the toe of Tailings Pond 2A. The site had six tailings ponds, three of the ponds (1, 2, and 2A) were used for solid waste tailings disposal, and the other three (3, 3A, and 4) were used for solution disposal from groundwater sweep, surface water runoff, and construction waste water.

The licensee had completed the following reclamation activities since the previous inspection conducted in August 2003: (1) placed the radon barrier on Tailings Ponds 4, and (2) completed well abandonment activities of the groundwater monitoring wells. The reclamation of Tailings Pond 4 and the completion of well abandonment activities concluded the decommissioning activities at the site.

License Condition 54 (P) requires, in part, that a completion report including as-built drawings verifying that reclamation activities at the site had been performed according to the approved plan, shall be provided to NRC within 6 months of the completion of construction. By letter dated April 21, 2005, the licensee submitted the project completion report for the Lucky Mc Uranium Mill to NRC for review.

2 Management Organization and Controls (88005)

2.1 Inspection Scope

The organization structure was reviewed by the inspector to ensure that the licensee had maintained an effective organization with defined responsibilities and functions. The licensee's standard operating procedures (SOPs) were reviewed by the inspector, and the implementation of these procedures by the licensee was assessed to evaluate the effectiveness of such controls of site activities.

2.2 Observations and Findings

The licensee's functional organization since the last inspection was compared with the organization referenced in the licence. The organization structure remained unchanged since the previous inspection. The licensee had assigned the manager of Environmental Compliance and Regulatory Services the duties and responsibilities of the radiation safety officer (RSO).

At the time of this inspection, the manager of Environmental Compliance and Regulatory Services and the manager of Technical Services remained onsite. The inspector determined that the licensee had maintained an appropriate staff of workers for conducting site remediation activities.

Licensee Condition 33 requires, in part, that the licensee establish SOPs for environmental monitoring and instrument calibrations. The inspector reviewed the SOPs developed for the current site activities and found them to be of sufficient detail, given the limited scope of work currently in progress at the site. The license requires an annual review of procedures by the licensee. The CY 2004 annual review was last completed by the licensee in January 2005.

2.3 Conclusions

The organization structure was consistent with the requirements of the license. An appropriate number of staff had maintained adequate oversight of reclamation activities. Site procedures were reviewed and maintained by the licensee in accordance with the license.

3 Radiation Protection (83822)

3.1 Inspection Scope

The purpose of this portion of the inspection effort was to determine if the licensee's radiation protection program since the last inspection, had remained in compliance with the requirements established in the license and 10 CFR Part 20.

3.2 Observations and Findings

The inspector determined that the licensee had secured licensed material within the site property as required by 10 CFR 20.1801. During the site tour the inspector noted that the licensee had posted site fences with radioactive material signs as required by 10 CFR 20.1902. The inspector performed independent radiological surveys using an NRC-issued microRoentgen meter (Serial Number 15518, calibration due date of November 10, 2005) that was calibrated to cesium-137. Radiological surveys were taken at various locations within tailings ponds 1, 2, 2A, 3, 3A, and 4. Gamma exposure rate measurements obtained by the inspector ranged from 8 to 20 microRoentgen/hour.

License Condition 15 requires, in part, that the licensee document results of sampling, analyses, surveys and monitoring; the results of calibration of equipment; reports on audits and inspections; all meetings and training courses required by this license; and any subsequent reviews, investigations, and corrective actions. The inspector's review of these records demonstrated the licensee was in compliance with the license.

Dosimeters were issued by the licensee to site employees and contractors during CY 2004. Dosimeter data maintained by the licensee demonstrated that worker radiation exposures had not exceeded the annual occupational dose limit of 5 rems.

A National Voluntary Laboratory Accreditation Program accredited dosimetry vendor provided the dosimeters and performed dosimetry analysis for the licensee. The inspector concluded that personnel exposures were less than 10 percent of the 10 CFR Part 20 limits.

License Condition 18 requires, in part, that the licensee not release contaminated material above the limits specified in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Materials," dated September 1984. The guidance requires the licensee to make a comprehensive radiation survey to establish that contamination of equipment or packages are within the limits specified in Table 1 of the guidance prior to release for unrestricted use.

The inspector reviewed contamination survey records for CY 2004, for equipment and vehicles that the licensee had released for unrestricted use. When requested to review records for motorized heavy equipment released, the licensee acknowledged to not performing release surveys and could not provide the records for this type of equipment released from a restricted area for unrestricted use. During CY 2004, the licensee released a scraper, after being used for remediation activities on Pond 4, for unrestricted use without performing surveys specified in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct or Source Materials," dated September 1984. The inspector determined that the licensee's failure to conduct required fixed or removable alpha contamination release surveys on the scraper from Pond 4 was a violation of License Condition 18 (040-2259/0005-01).

3.3 Conclusions

The licensee had procedures and practices in place to adequately implement the radiation protection program at the site, with one exception. This exception involved the licensee's failure to release equipment from the restricted area in accordance with the guidance specified in License Condition 18.

Employee exposures were well below the applicable NRC limits. Site fences and gates were secure, in good condition and had appropriate radioactive material postings. Program areas deemed satisfactory included the personnel training, and instrument calibrations.

4 Radioactive Waste Management (88035) and Environmental Monitoring (88045)

4.1 Scope

The inspector reviewed the licensee's radioactive waste management and environmental programs to determine compliance with applicable requirements specified in the license.

4.2 Observations and Findings

License Condition 21 requires, in part, that the licensee conduct an annual survey of land use in areas within 5 miles of the former mill and submit a report to the NRC each year. The purpose of the Land Use Survey Report is to describe any significant land use changes made by private residences, non-residential structures, grazing areas, and potable water and wells. The inspector reviewed the licensee's Land Use Survey Report's for 2002-2003 submitted on August 28, 2003, and 2003-2004, submitted on August 26, 2004. The inspector reviewed the reports and determined that the licensee had not identified any significant changes in land use since the last reporting period. The licensee's Land Use Survey Reports were determined to be in compliance with LC 21.

License Condition 22 requires, in part, that the licensee submit semi-annual reports of radiological effluent, environmental data, and determine the annual dose equivalent to the public pursuant to 10 CFR 40.65. The inspector reviewed the licensee's 10 CFR 40.65 semi-annual reports that were submitted to the NRC on August 28, 2003, for the first half of CY 2003, and February 27, 2004, for the second half of CY 2003. The inspector determined that the licensee had submitted the semi-annual reports in a timely manner and the reports were adequate in meeting the requirements of LC 22.

License Amendment No. 64 eliminated all environmental monitoring requirements, except groundwater. The last semi-annual report dated August 28, 2003, provided data for external radiation and radon-222 sampling results at the environmental monitoring sites.

The licensee had analyzed radon-222 at five sample stations and all measurable concentrations were significantly less than the effluent concentration limits listed in 10 CFR Part 20, Appendix B, Table II. Ambient gamma radiation levels were also measured at five locations using environmental thermoluminescent dosimeters (TLDs) around the site for the first half of 2003 and results ranged from 0 millirems per quarter to 3 millirems per quarter, with background subtracted. The inspector determined that potential radiation exposure to any member of the public from licensed material was well below the 100 millirems per year limit.

License Condition 60 requires, in part, that the licensee implement a groundwater compliance monitoring program. Groundwater monitoring data reviewed by the inspector from the beginning of CY 2003 and to the date of this inspection in 2004 indicated no significant trends in the groundwater quality. The groundwater, effluent, and environmental monitoring data for CY 2003 and the first half of CY 2004 indicated the dose to the nearest resident had not exceeded the 100 millirems per year dose limit for the public as specified in 10 CFR 20.1301.

4.3 Conclusion

The environmental monitoring, radioactive waste management, and groundwater corrective action programs conducted by the licensee since the last inspection were in accordance with the requirements of the license.

5 Exit Meeting Summary

The inspectors presented the inspection results to representatives of the licensee at the conclusion of the inspection on July 19, 2005. Licensee representatives acknowledged the findings as presented. The licensee did not identify any information provided to, or reviewed by, the inspectors as proprietary.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Hardgrove, Manager of Environmental and Regulatory Services/Radiation Safety Officer

ITEMS OPENED, CLOSED AND DISCUSSED

Opened

040-2259/0005-01 Failure to conduct required fixed or removable alpha contamination release surveys on the scraper released from Pond 4, for unrestricted use.

Closed

None

Discussed

None

INSPECTION PROCEDURES USED

87654	Decommissioning of Uranium Mills
88005	Management Organization and Controls
83822	Radiation Protection
88035	Radioactive Waste Management
88045	Environmental Monitoring

LIST OF ACRONYMS USED

ALARA	as low as is reasonably achievable
CFR	Code of Federal Regulations
CY	calendar year
LC	license condition
RSO	radiation safety officer
SOP	standard operating procedure
TLD	thermoluminescent dosimeter