

**NUCLEAR REGULATORY COMMISSION**

**Docket No. 40-6622**

**Notice of Availability of Environmental Assessment and Finding of No Significant Impact  
for License Amendment for Pathfinder Mines Corporation,  
Shirley Basin Site, Carbon County, WY**

**AGENCY:** U.S. Nuclear Regulatory Commission.

**ACTION:** Notice of availability.

**FOR FURTHER INFORMATION CONTACT:** Stephen J. Cohen, Project Manager, Fuel Cycle Facilities Branch, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC, 20555-0001. Telephone: (301) 415-7182; fax number: (301) 415-5955; e-mail: [sjc7@nrc.gov](mailto:sjc7@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Introduction**

The Nuclear Regulatory Commission (NRC) is issuing an amendment to Materials License No. SUA-442, issued to Pathfinder Mines Corporation (the licensee), to authorize alternate concentration limits (ACLs) at its Shirley Basin site in Carbon County, WY. NRC has prepared an Environmental Assessment (EA) in support of this amendment in accordance with the requirements of 10 CFR Part 51. Based on the EA, the NRC has concluded that a Finding of No Significant Impact (FONSI) is appropriate. The amendment will be issued following the publication of this Notice.

**II. EA Summary**

The purpose of the proposed amendment is to authorize ACLs for chloride, radium-226 + -228, selenium, sulfate, thorium-230, total dissolved solids (TDS), and uranium at the licensee's Shirley Basin site. Specifically, the amendment will replace current ground-water protection standards with ACLs because reducing ground-water concentrations to meet current standards is not feasible using the current ground-water corrective action program (CAP). The Licensee

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will also deactivate the current CAP because approval of the ACLs will bring all ground-water constituents of concern into compliance with approved standards. The current CAP has significantly reduced concentrations of the aforementioned constituents in ground water to the extent that deactivating the CAP is not expected to impact human health, safety, and the environment.

On April 3, 2000, Pathfinder Mines Corporation requested that NRC approve the proposed amendment. The staff has prepared the EA in support of the proposed license amendment. Staff considered impacts to land use, geology and soils, water resources, ecology, meteorology, climatology, air quality, socioeconomics, historical and cultural resources, public and occupational health, and transportation. The staff found that the impacts of the proposed action were not significant because ground-water remedial actions have significantly reduced the areal extent and concentration of hazardous constituents, and considerable modeling and ground-water sampling have adequately demonstrated that residual groundwater constituent concentrations are not expected to impact human health, safety, and the environment.

### **III. Finding of No Significant Impact**

On the basis of the EA, NRC has concluded that there are no significant environmental impacts from the proposed amendment and has determined not to prepare an environmental impact statement.

### **IV. Further Information**

Documents related to this action, including the application for amendment and supporting documentation, are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this site, you can access the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The ADAMS accession numbers for the documents related to this notice are as follows:

Document	ADAMS Accession No.	Date
Pathfinder Mines Corporation, license amendment request and Shirley Basin Application for Alternate Concentration Limits	ML003701936	4/3/00
Pathfinder Mines Corporation, Shirley Basin Application for Alternate Concentration Limits, Page Revisions for Section 1.3	ML003721101	6/1/00
U.S. Nuclear Regulatory Commission, Request for Additional Information - Shirley Basin Application for Alternate Concentration Limits	ML012050189	7/20/01
Pathfinder Mines Corporation, Shirley Basin Application for Alternate Concentration Limits, Response to NRC's Request for Information	ML012530116 ML012530146	8/29/01
U.S. Fish and Wildlife Service response to NRC, listing the threatened, endangered, and candidate species that may exist in Carbon County, Wyoming	ML022880471	9/26/02
Pathfinder Mines Corporation, Shirley Basin Application for Alternate Concentration Limits, Revisions to Section 4 - Compliance Monitoring	ML023310580	11/21/02
Wyoming Department of Environmental Quality, Classification of Groundwater, Shirley Basin Facility	ML030070703	1/3/03
Pathfinder Mines Corporation, First Response to September 13, 2003, Request for Additional Information - ACL Application	ML033250352	11/14/03
Pathfinder Mines Corporation, Response to September 13, 2003, Request for Additional Information - ACL Application	ML040350749	1/30/04
Wyoming Department of Environmental Quality, Spring Creek Stream Assessment, Draft Work Plan for Biotic Survey, Shirley Basin Site, Wyoming	ML040920255	3/22/04
Wyoming Department of Environmental Quality, Request for Additional Information, Pathfinder Mines, Alternate Concentration Limits Application, Shirley Basin Site, Wyoming	ML041410244	3/22/04
U.S. NRC, to Pathfinder Mines Corporation - Request for Additional Information Concerning Alternate Concentration Limits Application for the Shirley Basin, Wyoming Site	ML043130569	11/1/04
Spring Creek Evaluation for Pathfinder Mines Corporation, Shirley Basin Mine	ML050280249	1/12/05

2004 Spring Creek Aquatic Study, Shirley Basin Mine Area, October 2004.	ML050280249	1/12/05
Wyoming Department of Environmental Quality, Response to NRC Request for Additional Information, November 1, 2004	ML050970395	3/30/05
Wyoming Department of Environmental Quality, Biotic and Physical Survey of the Spring Creek Drainage System in the Vicinity of the Shirley Basin Mine Tailings Site, October 2004	ML050970382	3/30/05
Environmental Assessment for Amendment to Source Materials License SUA-442 for Ground Water Alternate Concentration Limits	ML052270503	7/31/05

If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to [pdr@nrc.gov](mailto:pdr@nrc.gov). These documents may also be viewed electronically on the public computers located at the NRC's PDR, O 1 F21, One White Flint North, 11555 Rockville Pike, Rockville, MD, 20852. The PDR reproduction contractor will copy documents for a fee.

Dated at Rockville, MD, this 25th day of August 2005.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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Division of Fuel Cycle Safety  
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