

November 26, 2001

Ms. Donna L. Wichers,
General Manager
Pathfinder Mines Corporation
P.O. Box 730
Mills, WY 82644

SUBJECT: SUA-1540 AMENDMENT NO. 5 – CHANGE OF CONTROL FOR
PATHFINDER'S NORTH BUTTE AND RUTH PROJECTS

Dear Ms. Wichers:

By letter of November 2, 2001, Pathfinder Mines Corporation (Pathfinder) indicated that it had entered into a Purchase Agreement for the sale of the North Butte and Ruth In Situ Leach (ISL) Projects in Wyoming to Power Resources, Inc. (PRI). The closing of the sale is scheduled for November 30, 2001, pending the approval of regulatory authorities for all license and permit transfers. Also, Pathfinder requested a license amendment to transfer control of Source Material License No. 1540 to PRI and supplied information for the change of control consistent with the Regulatory Issue Summary 2001-04 (January 24, 2001) and NUREG-1556, Volume 15. PRI provided additional information by letter dated November 2, 2001. Therefore, pursuant to Part 40 of Title 10 of the Code of Federal Regulations (CFR), the U.S. Nuclear Regulatory Commission (NRC) staff consents to the transfer of control of the license from Pathfinder to PRI as discussed below.

The staff's review of the request was conducted according to requirements in Section 184 of the Atomic Energy Act and 10 CFR 40.46 to ensure that there would be no adverse impact on the public health and safety or common defense and security as a result of the transfer of control. PRI currently operates another ISL facility in Wyoming under NRC license and is deemed capable of safely operating the North Butte and Ruth Projects.

The NRC will hold PRI responsible for all requirements and conditions of license SUA-1540, including financial responsibility for decommissioning. Before the closing, PRI will provide the Wyoming-approved surety instrument for the amount required in License Condition 35 (\$165,674 for Ruth and \$32,477 for North Butte). In addition, it is NRC's expectation that the parties will notify NRC of both the closing and the transfer of site records within 2 working days of their occurrence.

Based on the information submitted by Pathfinder and PRI and the NRC staff safety evaluation report (Enclosure 1), we have determined that your request for transfer is in accordance with the regulations and have amended the license as requested (Enclosure 2). As discussed with you on November 13, 2001, new License Condition 51 requires that the closing and transfer of site records occur before Amendment 5 is effective. If you have any questions about this matter, please contact the project manager, Elaine Brummett, at (301) 415-6606 or by e-mail at esb@nrc.gov.

In accordance with 10 CFR 2.790 of the NRC's "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/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Melvyn Leach, Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Enclosures: NRC Safety Evaluation Report
SUA -1540, Amendment No. 5

Docket No.: 40 - 8981
License No.: SUA -1540

cc: G. Mooney, WDEQ, District III, Sheridan
R. Chancellor, WDEQ/LQD, Cheyenne
W. F. Kearney, Power Resources, Inc.

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*See previous concurrence

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SAFETY EVALUATION REPORT FOR THE
TRANSFER OF CONTROL FOR MATERIALS LICENSE SUA-1540

DOCKET NO.: 40-8981 LICENSE NO.: SUA-1540

SITES: North Butte and Ruth In Situ Leach (ISL) Projects
Campbell and Johnson Counties, Wyoming

DATE: November 13, 2001

TECHNICAL REVIEWER: Elaine Brummett, Health Physicist

PROJECT MANAGER: Elaine Brummett

SUMMARY:

By letter dated November 2, 2001, Pathfinder Mines Corporation (Pathfinder) indicated that it has entered into a Purchase Agreement for the sale of the North Butte and Ruth In Situ Leach (ISL) Uranium Recovery Projects in Wyoming to Power Resources, Inc. (PRI). The closing of the sale is currently scheduled for November 30, 2001, pending the approval of all license and permit transfers from regulatory authorities. Pathfinder requested a license amendment to transfer control to PRI and supplied information for the change of control consistent with the Regulatory Issue Summary 2001-04 (January 24, 2001) and NUREG-1556, Volume 15. Additional information on instrumentation was provided by e-mail on November 14, 2001. PRI also submitted information by letter dated November 2, 2001. The NRC staff determined that the appropriate information had been provided and that the transfer of control to PRI would meet applicable regulations.

BACKGROUND:

The North Butte site was licensed for commercial ISL uranium operations in early 1991 but very limited development, and no operation (mining/milling), has occurred. Existing facilities include one house trailer used as a site office, various hydrology test wells, the monitor well ring surrounding the first two wellfields planned for installation, and the associated interior baseline and shallow monitor wells. No other construction has occurred at the North Butte site.

The facilities remaining at the Ruth site include the pilot plant building and remaining equipment (three small ion exchange vessels, the wellfield injection manifold, two surge tanks and one solution storage tank - all empty), two lined evaporation ponds, a warehouse building, and topsoil stockpiles. The lined evaporation ponds were used during the pilot testing for wastewater evaporation. The ponds are in excellent condition and are essentially empty, with only a small amount of water remaining from precipitation events and some residual solids. The wells associated with the pilot wellfield were plugged and abandoned by Pathfinder in 2000, three wells remain (plant water well and two regional monitor wells). No commercial construction or operations have occurred at the Ruth site.

EVALUATION:

Description of the Transaction

Pathfinder stated that the transaction (sale) will occur by transfer of assets (cash) from PRI to Pathfinder. The change of ownership includes transfer of authority over the license to PRI.

Change of Personnel, Location, Equipment, and Procedures

PRI intends to use the same personnel responsible for the environmental and radiation safety programs at its other ISL facility (SUA-1511). The NRC staff has previously approved the qualifications of these PRI employees. Also, PRI stated that there will be no change to the name or locations of the facilities. At this time, PRI will not change equipment or operating procedures. Operating procedures for ongoing activities will be transferred with the property to PRI.

Surveillance Records

Currently, the only routine surveillance conducted is at the Ruth site, where residual byproduct material exists from previous research and development (R & D) activities. A monthly inspection of the Ruth evaporation ponds is conducted according to License Condition No. 30. The results of the monthly pond inspections are recorded and these records will be transferred to the new licensee. Other surveillance includes routine alpha radiation monitoring of employees exiting the restricted area at the Ruth site, as well as any release of equipment from the site. All of these records will be transferred to the new licensee. All other radiation monitoring requirements have been suspended until the commencement of operations (License Condition No. 49).

No routine monitoring is conducted at North Butte, as radioactive materials are not present. Records for both sites will be transferred to PRI including well integrity test results and baseline water quality sampling results.

Decommissioning and Related Records Transfer

The files pertaining to decommissioning of the Ruth and North Butte sites, required by 10 CFR 40.36(f) and 40.61, will be transferred to PRI with the property sale. These files include the results of leak detection monitoring for the Ruth evaporation ponds, past building and equipment gamma surveys, well plugging and abandonment records, well construction records and integrity test results for the North Butte monitor wells, operational records from the R&D activities at the Ruth site, and pond construction details for the existing ponds at the Ruth site.

Alpha and gamma radiation measurements were made at the Ruth facilities during October and November 2001, to assess current radiological conditions. The data summary was provided by Pathfinder as an attachment to the November letter. Additional information on instrumentation was provided by facsimile on November 14, 2001. No radiological surveys were made at the North Butte property, as no processing has occurred to date at that site. With the exception of the residual contamination inside the remaining process vessels located within the plant building, the sediment in the evaporation ponds, and three areas on the plant floor, the Ruth site meets the limits for un-restricted use. PRI is aware of the radiological status of the Ruth and North Butte sites.

The most recent regulatory inspection of the Ruth and North Butte sites was conducted by the State of Wyoming, Department of Environmental Quality, Land Quality Division, on October 18, 2001. No items of non-compliance were found. Previous NRC inspections have also noted no items of non-compliance.

It is understood that PRI will determine when the sites will be decommissioned. According to the License Condition 20, the licensee will submit a detailed decommissioning plan at least 12 months prior to planned final shutdown of mining operations.

Transferee's Commitment to Abide by the Transferor's Commitments

PRI has indicated that it will accept the license transfer with all current conditions and requirements, as well as conditions and commitments made by Pathfinder in referenced documents in the license. PRI may request license amendments in the future in order to adjust the license to fit their existing program for the Highland ISL project. PRI stated its intent to abide by all constraints, conditions, requirements, and commitments with respect to License SUA-1540.

License Amendment Request

According to Pathfinder's submittal and as discussed with the Pathfinder manager on November 9 and 13, 2001, Pathfinder requests that Source Material License No. 1540 be transferred to PRI through the amendment of License Conditions 1, 2, 10, 32, and 35. Also, condition 49 should be corrected and a new condition (No. 51) should be added to require closing of the property sale and transfer of site records before Amendment 5 is effective. The new/revised conditions should read as follows:

1. Power Resources, Inc.
2. P.O. Box 1210
Glenrock, WY 82637
10. Delete the word "licensee's" in three places so that Pathfinder's submittals and license applications will apply to PRI.
32. "The licensee shall maintain an area within the restricted area boundary for storage of contaminated materials prior to their disposal. Additionally, the licensee shall have an agreement for the disposal of 11e.(2) byproduct material with a facility licensed to accept such materials, and must have the agreement in place prior to any lixiviant injection. The licensee shall maintain the waste disposal agreement onsite. In the event the agreement expires or is terminated, the licensee shall attain a new agreement within 90 days after expiration, or the licensee will be prohibited from further lixiviant injection."
35. Paragraph 1 – no change:
Paragraph 2 – up-date the last sentence to read: "The reclamation/decommissioning plan, cost estimates, and annual updates should follow the guidance in NUREG-1569."

Paragraph 3 – revision: "The licensee shall continuously maintain an NRC approved surety instrument for the current non-operational Ruth facility in the amount of no less

than \$165,674.00, in favor of the State of Wyoming, for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9, until a replacement is authorized by both the State and the NRC.”

Paragraph 4 – revision: “The licensee shall continuously maintain an NRC approved surety instrument for the current non-operational North Butte facility in the amount of no less than \$32,477.00, in favor of the State of Wyoming, for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9, until a replacement is authorized by both the State and the NRC.”

Paragraph 5 – no change:

49. Correct the sentence to add “36” to the two lists of license conditions that will not take effect until the commencement of lixiviant injection at each facility, since License Condition 36 requires a daily walkthrough of the facilities.

51. “Notwithstanding the date of Amendment 5, Amendment 5 becomes effective on the date of the closing of ownership transfer of assets, so long as that closing, and the transfer of site records related to decommissioning, occurs not later than 30 days from the date of Amendment 5.”

ENVIRONMENTAL REVIEW:

The approved changes are considered administrative and organizational in nature and meet the conditions of 10 CFR 51.22(c)(11). Therefore, neither an environmental assessment or environmental impact statement is required for this action.

CONCLUSIONS:

Based on the above, the staff has determined that the request to transfer control of SUA-1540 is acceptable, is in accordance with requirements in Section 184 of the Atomic Energy Act and 10 CFR 40.32 and 40.46, and would not create an adverse impact on the public health and safety or on common defense and security. There will be no changes in the current license conditions covering the health and safety program, professional qualifications of personnel, or equipment and facilities.

The staff recommends that the transfer of control (authority over the license) to PRI be approved, conditional to notification that closing of the property sale has occurred and that the required site records have been transferred to PRI (see proposed License Condition 51). Also, the license should be amended as requested.

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and the applicable parts of Title 10, Code of Federal Regulations, Chapter I, Parts 19, 20, 30, 31, 32, 33, 34, 35, 36, 39, 40, 51, 70, and 71, and in reliance on statements and representations heretofore made by the licensee, a licensee is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee			
1 Power Resources, Inc.		3. License Number SUA-1540 Amend No. 5	
2 P.O. Box 1210 Glenrock, WY 82637		4. Expiration Date December 31, 2007	
		5. Docket or Reference 40-8981	
6 Byproduct, Source, and/or special Nuclear Material Uranium	7. Chemical and/or Physical Form Unspecified	8. Maximum Amount that Licensee May Possess at Any one Time Under This License 1,300,000 pounds	

9. The authorized place of use shall be the licensee's North Butte and Ruth facilities in Campbell and Johnson Counties, Wyoming. The licensee is also authorized to process, at the Ruth site, residual contaminated materials from previous research and development operations.
10. For use in accordance with statements, descriptions, and representations contained in the submittals dated April 1, 1992, and Sections 15, 16.1 to 16.4, 16.6 to 16.12, and 19 of the revised North Butte application submitted by cover letter dated March 7, 1989, and Sections 15, 16.1 to 16.4, 16.6 to 16.12, and 19 of the revised Ruth application submitted by cover letter dated October 3, 1988.

Notwithstanding the above, the following conditions shall override any conflicting statements contained in the licensee's applications and supplements.

(Applicable Amendment: 5)
11. The annual throughput of the North Butte facility shall not exceed a flow rate of 4,000 gallons per minute, exclusive of restoration flow resulting in a production rate not to exceed 700,000 pounds of U₃O₈; the annual throughput of the Ruth facility shall not exceed a flow rate of 1,000 gallons per minute, exclusive of restoration flow resulting in a production rate not to exceed 300,000 pounds of U₃O₈.
12. Any significant changes in the process circuit as shown in Figure 15.21 of the North Butte application dated April 1, 1992, and Figure 15.19 of the Ruth application dated October 3, 1988, shall require approval by the NRC in the form of a license amendment.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number	SUA-1540
----------------	----------

Docket or Reference Number	40-8981
----------------------------	---------

Amendment No. 5

13. Release of equipment or packages from the restricted area shall be in accordance with the report, "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 results of effluent and environmental monitoring described in the submittal dated November 13, 1990, shall be reported in accordance with 10 CFR Part 40, Section 40.65, to the NRC. The report shall also include injection rates, recovery rates and injection manifold pressures.
14. The licensee is authorized to dispose of process waters at the North Butte site, by way of deep well injection, in accordance with their submittal dated November 13, 1990. Additionally, the quantity of water injected shall be recorded.
15. Before engaging in any activity not previously assessed by the NRC, the licensee shall prepare and record an environmental evaluation of such activity. When the evaluation indicates that such activity may result in a significant adverse environmental impact that was not previously assessed or that is greater than that previously assessed, the licensee shall provide a written evaluation of such activities and obtain prior approval of the NRC in the form of a license amendment.
16. The results of the 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, shall be documented. Unless otherwise specified in the NRC regulations, all such documentation shall be maintained for a period of at least 5 years.
17. Standard operating procedures (SOPs) shall be established for all operational process activities involving radioactive materials that are handled, processed or stored. Standard operation procedures for operational activities shall enumerate pertinent radiation safety practices to be followed. Three months prior to the planned initiation of operations the SOPs shall be submitted to the NRC in the form of a license amendment for review and approval. Additionally, written procedures shall be established for nonoperational activities to include in-plant and environmental monitoring, bioassay analyses and instrument calibrations. An approved current copy of each written procedure shall be kept in the process area to which it applies.
18. All written procedures for both operational and nonoperational activities shall be reviewed and approved in writing by the Radiation Safety Officer before implementation, whenever a change in a procedure is proposed, and at least annually, to ensure that proper radiation protection principles are being applied.
19. The licensee shall, 6 months prior to installation, submit a description of the emission control equipment for the yellowcake drying and packaging areas, at the North Butte site, that is at least 99 percent efficient as well as a commitment to have the RSO or trained assistant physically present during operation of the dryer. Additionally, annual throughput of the yellowcake dryer shall not exceed 1,000,000 pounds of U_3O_8 .

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number	SUA-1540
----------------	----------

Docket or Reference Number	40-8981
----------------------------	---------

Amendment No. 5

20. The licensee shall submit a detailed decommissioning plan to the NRC at least 12 months prior to planned final shutdown of mining operations. The decommissioning plan shall include a proposal to remove all buried process piping.
21. All liquid effluents from process buildings and other process waste streams, with the exception of sanitary wastes, shall be returned to the process circuit, discharged to the solution evaporation ponds, disposed by way of NPDES permit, or injected via the deep well disposal program authorized at the North Butte site.
22. The licensee shall submit baseline water quality data for all mining units from wells established in the mining zone, the mining zone perimeter, as well as the upper and lower aquifers with the exception that the lower aquifer at the North Butte site shall not require baseline water quality data. All baseline data shall be submitted to the NRC for review and approval 2 months prior to mining. The data shall, at a minimum, include one sample analyzed for the constituents shown in Table 16.1 of the North Butte and Ruth license applications dated March 7, 1989, and October 3, 1988, respectively.
23. Prior to mining at the North Butte facility, baseline water quality for each mining unit shall be established at the following minimal density: all mining zone perimeter monitor wells, one upper aquifer monitor well per four acres of well field, and one production/injection well per 4 acres of well field. Prior to mining at the Ruth facility, baseline water quality for each mining unit shall be established at the following minimal density: all mining zone perimeter wells, one upper and lower aquifer monitor well per four acres of well field, and one production/injection well per 3 acres of well field.
24. The licensee shall, 2 months prior to lixiviant injection, propose in the form of a license amendment, upper control limits (UCLs) for all monitoring wells utilized for excursion monitoring in each mining unit.
- If two UCLs are exceeded in a well, the licensee shall take a confirmation water sample within 48 hours and analyze it for chloride, conductivity and total alkalinity. If the second sample does not indicate exceedance, a third sample shall be taken within 48 hours. If neither the second or third indicate exceedance, the first sample shall be considered in error.
- If the second or third sample indicates an exceedance, the well in question shall be placed on excursion status and the NRC shall be notified by telephone within 24 hours and within 7 days in writing from the time the confirmation sample was taken. Upon confirmation of an excursion, the licensee shall implement a corrective action and increase the sampling frequency for the excursion indicators to once every 7 days. An excursion is considered concluded when the concentrations of excursion indicators are below the concentration levels defining an excursion for three consecutive 1-week samples.
25. Upper control limits (UCLs) for specific conductivity and carbonate plus bicarbonate shall be the mean of the baseline wells plus five standard deviations. The UCLs for chloride shall be the mean of the baseline wells plus five standard deviations or the mean plus 15 mg/l, whichever is greater.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number	SUA-1540
----------------	----------

Docket or Reference Number	40-8981
----------------------------	---------

Amendment No. 5

26. A written report shall be submitted to the NRC within 2 months of excursion confirmation. The report shall describe the excursion event, corrective actions taken and results obtained. If the wells are still on excursion at the time the report is submitted, injection of lixiviant within affected portions of the well field on excursion shall be terminated until such time that the excursion is considered concluded.
27. The licensee shall perform well integrity tests on each injection, production, and monitor well before the wells are utilized and on wells that have been serviced. At the North Butte facility, the integrity test shall pressurize the well to 168 pounds per square inch (psi) or 90 percent of the formation fracture pressure, if higher than 140 psi. At the Ruth facility, the integrity test shall pressurize the well to 240 psi. A well shall have passed the test if it maintains 90 percent of the test pressure after 10 minutes. At the licensee's option, a single point resistance test may be utilized. Any well casing failing the integrity test that cannot be repaired, shall be plugged and abandoned according to the State of Wyoming standards. Each well utilized for mining or monitoring shall be retested every 5 years.

Additionally, flow rates on each injection and recovery well and manifold pressures on the entire system shall be measured and recorded daily. During well field operations, injection pressures shall not exceed the integrity test pressure at the injection well heads.

28. The license shall utilize sodium carbonate/bicarbonate as the lixiviant with an oxygen or hydrogen peroxide oxidant. Any variation from this combination shall require a license amendment.
29. The solution evaporation ponds at the Ruth site shall have 3 feet of freeboard. The solution evaporation ponds at the North Butte site shall be constructed as described in the licensee's submittals of April 1 and May 7, 1992, and supplemented by additional information provided by the licensee's letter of April 10, 1995. The North Butte site solution evaporation ponds shall have one foot of freeboard. Additionally, the solution evaporation ponds at the Ruth and North Butte sites shall be operated to insure that, at all times, sufficient reserve capacity is maintained in the evaporation pond system to enable the transfer of the contents of one pond to the other pond.
30. The licensee shall perform and document, at the Ruth and North Butte sites, visual inspections of the evaporation pond embankments, fences, and liners, as well a measurements of pond freeboard and checks of the leak detection system. The frequency of those inspections shall be monthly at the Ruth site and weekly at the North Butte site. Any fluid detected in the standpipes shall be analyzed for chloride, carbonate/bicarbonate, sodium, and uranium. Should analyses indicate that the pond is leaking, the NRC Operations Center (301-816-5100) shall be notified by telephone within 48 hours of verification and the pond level lowered by transferring its content into an alternate cell. Standpipe water quality samples shall be analyzed for the above parameters once every 7 days during the leak period and once every 7 days for at least 2 weeks following repairs.

A written report shall be filed with the NRC within 30 days of first notifying the NRC that a leak exists. This report shall include analytical data and describe the mitigative action and the results of that action.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number	SU-1540
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Docket or Reference Number	40-8981
----------------------------	---------

Amendment No. 5

31. The licensee shall maintain a log of all significant solution spills and notify the NRC Operations Center (301-816-5100) by telephone within 48 hours of any failure which may have a radiological impact on the environment. Such notification shall be followed, within seven days, by submittal of a written report detailing the conditions leading to the failure or potential failure, corrective actions taken and results achieved. This requirement is in addition to the requirement of 10 CFR Part 20.
32. The licensee shall maintain an area within the restricted area boundary for storage of contaminated materials prior to their disposal. Additionally, the licensee shall have an agreement for the disposal of 11e.(2) byproduct material with a facility licensed to accept such materials, and must have the agreement in place prior to any lixiviant injection. The licensee shall maintain the waste disposal agreement onsite. In the event the agreement expires or is terminated, the licensee shall attain a new agreement within 90 days after expiration, or the licensee will be prohibited from further lixiviant injection.
- (Applicable Amendment: 5)
33. At least 3 months prior to termination of uranium recovery in a mining unit, the licensee shall submit to the NRC in the form of a license amendment, a plan for ground-water restoration and at least 12 months of post-restoration monitoring consisting of at least 9 sampling events. The goal of restoration shall be to return the ground-water quality, on a mining unit average, to baseline concentrations.
34. At least 3 months prior to operation of the yellowcake dryer at the North Butte site, the licensee shall submit to the NRC in the form of a license amendment, a respiratory protection program, for NRC review and approval.
35. The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40, Appendix A, Criterion 9, adequate to cover the estimated costs, if accomplished by third party, for completion of the NRC-approved site closure plan including: above-ground decommissioning and decontamination, the cost of offsite disposal of radioactive solid process or evaporation pond residues, groundwater restoration, and soil and water analysis. Within 3 months of NRC approval of a revised closure (decommissioning/restoration) plan and the cost estimate for its implementation, the licensee shall submit the revised surety arrangement, if the costs in the newly approved plan exceed the amount covered in the existing financial surety.

Annual updates to the surety amount, required by 10 CFR 40, Appendix A, Criterion 9, shall be provided to the NRC at least 3 months prior to the surety anniversary date, which is designated as April 30 of each year. If the NRC has not approved a proposed revision 30 days prior to the expiration date of the existing surety arrangement, the licensee shall extend the existing arrangement, prior to expiration, for 1 year. Along with each proposed revision or annual update, the licensee shall submit supporting documentation showing a breakdown of the costs and the basis for the cost estimates with adjustments for inflation, maintenance of a minimum 15 percent contingency, changes in engineering plans, activities performed, and any other conditions affecting estimated costs for site closure. The licensee shall also provide the NRC with copies of surety related correspondence submitted to the State of Wyoming, a copy of the State's surety review, and the final approved surety arrangement. The licensee must also ensure that the surety, where authorized to be held by the State, expressly identifies the NRC-related portion of the surety. The basis for the cost estimate is the NRC-approved site closure plan, or the NRC-approved revisions to the plan.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number	SUA-1540
----------------	----------

Docket or Reference Number	40-8981
----------------------------	---------

Amendment No. 5

The reclamation/decommissioning plan, cost estimates, and annual updates should follow the guidance in NUREG-1569.

The licensee shall continuously maintain an NRC approved surety instrument for the current non-operational Ruth facility in the amount of no less than \$165,674.00, in favor of the State of Wyoming, for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9, until a replacement is authorized by both the State and the NRC.

The licensee shall continuously maintain an NRC approved surety instrument for the current non-operational North Butte facility in the amount of no less than \$32,477.00, in favor of the State of Wyoming, for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9, until a replacement is authorized by both the State and the NRC.

At least six months prior to the expected commencement of construction of a commercial facility at either the Ruth or North Butte sites, the licensee shall submit for NRC and State approval, an itemized cost estimate for implementation of the NRC-approved decommissioning/restoration plan for the commercial facility. Site construction activities shall not commence until the NRC and State approve the surety amount and accept the surety arrangement. This surety shall be written in favor of the State of Wyoming or the NRC for the purposes of complying with 10 CFR 40, Appendix A, Criterion 9, and shall be continuously maintained until a replacement is authorized by both the State and the NRC.

[Applicable Amendments: 1, 2, 3, 4, 5]

36. In addition to the inspection and audit programs described in Section 19.1.3 of the North Butte and Ruth applications, dated March 7, 1989, and October 3, 1988, respectively, the RSO or trained assistant shall document a daily walkthrough of the facilities to determine if radiation control practices are being implemented.
37. The licensee shall submit to the NRC a copy of the semiannual ALARA audit report containing the information specified in Section 19.1.3 of the North Butte and Ruth applications dated March 7, 1989, and October 3, 1988, respectively, within two months of the end of the reporting period. The report shall also include a summary of the daily walkthrough inspections.
38. The licensee shall implement the radiological surveys described in Sections 19.1.7.2, 19.1.7.5, 19.1.7.6, and 19.1.7.8 at the locations specified in Figure 19.2 of the North Butte and Ruth applications dated, March 7, 1989, and October 3, 1988, respectively. Additionally, alpha surveys at the designated locations shall be conducted weekly and gamma surveys shall be performed monthly; representative air particulate monitoring shall be performed every time the dryer is utilized, when the dryer is not being used particulate monitoring shall be administered on a weekly frequency.
39. The licensee shall, two months prior to initiation of operations, at the Ruth site, propose alpha survey locations in the resin transfer and filter areas.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number SUA-1540

Docket or
Reference
Number 40-8981

Amendment No. 5

In addition to the bioassay program discussed in Section 19.1.7.4 of the North Butte and Ruth applications, dated March 7, 1989, and October 3, 1988, respectively, the licensee shall comply with the following:

- A. Anytime an action level of 15 ug/l uranium for urinalysis is reached or exceeded, the licensee shall document the corrective actions which have been performed in accordance with Revision 1 of Regulatory Guide 8.22, dated January 1987. This documentation shall be submitted to the NRC as part of the semiannual report required by 10 CFR Part 40.65.
 - B. Anytime an action level of 35 ug/l for two consecutive specimens or 130 ug/l uranium for one specimen for urinalysis or 16 nCi uranium for an in vivo measurement is reached or exceeded, the licensee shall document the corrective actions which have been performed in accordance with Revision 1 of Regulatory Guide 8.22. This documentation shall be submitted to the NRC within 30 days of exceeding the action level.
 - C. All in vivo measurements shall be performed in accordance with the recommendations contained in Revision 1 of Regulatory Guide 8.22.
41. Employees shall monitor themselves with an alpha survey instrument prior to exiting the restricted area. Should the results of monitoring exceed an action level of 1000 dpm/100 cm², employees shall decontaminate themselves to less than the action level. If decontamination cannot be accomplished, the employee shall report the incident to the RSO for investigation. Additionally, the RSO shall perform and document unannounced quarterly spot checks of employees leaving the process areas.
 42. All radiation and environmental monitoring sampling and detection equipment shall be recalibrated after each repair and as recommended by the manufacturer or at least semiannually, whichever is more frequent. In addition, all radiation survey instruments shall be operationally checked with a radiation source before each day's use.
 43. The RSO shall have the health physics authorities, responsibilities, and technical qualifications identified in Regulatory Guide 8.31.
 44. The licensee is hereby exempted from the requirements of Section 20.203(e)(2) of 10 CFR 20 for areas within the facility, provided that all entrances to the facility are conspicuously posted in accordance with Section 20.203(e)(2) and with the words, "ANY AREA WITHIN THIS FACILITY MAY CONTAIN RADIOACTIVE MATERIAL."
 45. The licensee shall be required to use a special work permit (SWP) for all work or nonroutine maintenance jobs where the potential for significant exposure to radioactive material exists and for which no standard written operating procedure exists. All SWPs shall be accompanied by a breathing zone air sample or an applicable air sample. The SWP shall be issued by the RSO or trained assistant, qualified by way of specialized radiation protection training, except when the work to be performed is in the drying and packaging area. The SWP for these areas shall be issued by the RSO. The SWP shall describe at least the following:
 - A. The scope of the work to be performed.
 - B. Any precautions necessary to reduce exposure to uranium and its daughters.
 - C. The supplemental radiological monitoring and sampling necessary prior to, during and following completion of the work.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number SUA-1540

Docket or
Reference
Number 40-8981

Amendment No. 5

In addition, the RSO shall review and document all nonroutine work activities on a quarterly frequency.

46. Occupational exposure calculations shall be performed and documented within 1 week of the end of each regulatory compliance period as specified in 10 CFR 20.103(a)(2) and 10 CFR 20.103(b)(2). Routine radon or radon daughter and particulate samples shall be analyzed in a timely manner to allow exposure calculations to be performed in accordance with this condition. Nonroutine samples shall be analyzed and the results reviewed by the RSO within 2-working days after sample collection.

47. If any worker reaches or exceeds 25 percent of the maximum permissible exposure limits as specified in 10 CFR Part 20, based upon a calculated time weighted exposure for the week or the calendar quarter, dependent on the solubility of the material, the RSO shall initiate an investigation of the employee's work record and exposure history to identify the source of the exposure.

Necessary corrective measures shall be taken to ensure that future exposures are as low as is reasonably achievable. Records shall be maintained of these investigations and results furnished to the NRC in the semiannual report required by 10 CFR 40.65.

48. The licensee shall, 3 months prior to initiation of operations, propose in the form of a license amendment emergency procedures to be implemented in the event of natural disasters, equipment failure, facility damage, loss or theft of source material, and unauthorized discharge of radioactive materials, for review and approval by the NRC.

49. Notwithstanding the above, the monitoring and reporting requirements for the North Butte facility stated in License Condition Nos. 10, 18, 36, 38, 39, 40, 42, 43, 44, and 49 shall become effective concurrent with the commencement of lixiviant injection at the North Butte facility and the monitoring and reporting requirements for the Ruth facility stated in License Condition Nos. 10, 18, 36, 38, 39, 40, 42, 43, 44, and 49 shall become effective concurrent with the commencement of lixiviant injection at the Ruth facility.

(Applicable Amendment: 5)

50. Notification to NRC under 10 CFR 20.2202, 10 CFR 40.60, and specific license conditions should be made as follows:

Required written notice to NRC under this license should be sent to: Chief, Fuel Cycle Licensing Branch, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or express mail should be delivered to: Chief, Fuel Cycle Licensing Branch, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, Mailstop T-8-A-33, 115445 Rockville Pike, Rockville, Maryland 20852-2738.

Required telephone notification of NRC should be made to the NRC Operations Center at (301) 816-5100.

(Applicable Amendment: 4)

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number SUA-1540

Docket or Reference Number 40-8981

Amendment No. 5

- 51. Notwithstanding the date of Amendment 5, Amendment 5 becomes effective on the date of the closing of ownership transfer of assets, so long as that closing, and the transfer of site records related to decommissioning, occurs not later than 30 days from the date of Amendment 5.

(Applicable Amendment: 5)

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Dated: November 26,2001

Melvyn Leach, Chief
 Fuel Cycle Licensing Branch
 Division of Fuel Cycle Safety
 and Safeguards
 Division of Nuclear Safety
 and Security and Nuclear Material Safety

