

September 3, 2001

Mr. John E. Trummel  
Kennebec Energy Company  
505 South Gillette Ave.  
P.O. Box 3009  
Gillette, WY 82717-3009

SUBJECT: REVIEW OF THE L-BAR URANIUM MILL TAILINGS SITE RECLAMATION  
COMPLETION REPORT, AMENDMENT NO. 38 TO SOURCE MATERIALS  
LICENSE SUA-1472

Dear Mr. Trummel:

By letter dated January 4, 2001, Sohio Western Mining Company (SWMC) submitted the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report* to document the completion of reclamation of the tailings disposal cell at the L-Bar site. In subsequent letters dated March 1, 2001, and April 6, 2001, SWMC requested amendments to License Conditions (LCs) 12, 22, 24, 27, 31, 33, and 34 of Source Materials License SUA-1472 to reflect completion of reclamation at L-Bar and to facilitate eventual termination of the license. In a letter dated May 1, 2001, the staff responded to SWMC's request to amend LCs 12, 22, 24, 27, 31, and 34 but deferred action on LC 33 pending completion of the review of the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report* and planned final inspection of the reclaimed site and submittal of a final gamma radiation survey by SWMC of the tailings impoundment and buried mill area. The staff conducted its final inspection of the completed reclamation construction activities at the L-Bar site on May 8, 2001, and, in a letter dated June 28, 2001, SWMC submitted the results of the gamma radiation survey to verify the adequacy of the overall decommissioning and reclamation effort to eliminate and dispose of radioactive materials. The staff has completed its review of the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report* and supporting information and SWMC's request to amend LC 33. This review is documented in the enclosed Technical Evaluation Report (Enclosure 1).

Based on its review, the staff concludes that reclamation of the L-Bar tailings site was performed in accordance with the requirements of 10 CFR Part 40, Appendix A, and the approved SWMC *L-Bar Uranium Mine Reclamation and Closure Plan*, as specified in LC 33. Accordingly, SWMC's request to amend LC 33 to reflect completion of reclamation is acceptable. The modification to LC 33 is provided as Amendment No. 38 to Source Materials License SUA-1472 (Enclosure 2). All other conditions of the license shall remain the same.

If you have any questions regarding this letter, please contact Rick Weller, the Project Manager for the L-Bar facility, at (301) 415-7287 or by e-mail to [RMW2@nrc.gov](mailto:RMW2@nrc.gov).

J. Trummel

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Sincerely,

/RA/

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

Docket No.: 40-8904  
License N.: SUA-1472

Enclosures:

1. Technical Evaluation Report
2. Amendment No. 38 to Source Materials  
License SUA-1472

cc: D. Bergman-Tabbert, DOE Grand Junction  
M. Leavitt, NMED, Santa Fe  
S. Jordan, Nordhaus Law Firm

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J.Trummel

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| <b>NAME</b> | RWeller  |  | ARamirez |  | GJanosko |  | MLeach  |  |  |  |
| <b>DATE</b> | 08/28/01 |  | 08/28/01 |  | 08/31/01 |  | 09/3/01 |  |  |  |

**OFFICIAL RECORD COPY**

**TECHNICAL EVALUATION REPORT**  
FOR  
THE L-BAR URANIUM MILL TAILINGS SITE RECLAMATION COMPLETION REPORT

DOCKET NO.: 40-8904

LICENSEE: Sohio Western Mining Company

FACILITY: L-Bar

PROJECT MANAGER: Rick Weller

TECHNICAL REVIEWERS: Elaine Brummett, Ted Johnson, Dan Rom, and Rick Weller

Introduction

The Sohio Western Mining Company (SWMC) L-Bar site is the location of a former conventional uranium mill that is being decommissioned and reclaimed by the licensee under Title II of the Uranium Mill Tailings Radiation Control Act of 1978, as Amended (UMTRCA). UMTRCA requires that, prior to termination of SWMC's Source Materials License, the U.S. Nuclear Regulatory Commission (NRC) shall determine whether the licensee has complied with the decontamination, decommissioning, and reclamation standards prescribed by the NRC. The NRC standards for decontamination, decommissioning, and reclamation of uranium mill tailings sites are codified in 10 CFR Part 40, Appendix A. This technical evaluation report (TER) focuses on SWMC's reclamation of the tailings disposal cell and evaluates the acceptability of reclamation activities in accordance with NRC requirements and the conditions of SWMC's Source Materials License.

Background

The L-Bar site is located in Cibola County approximately 47 miles west of Albuquerque, New Mexico. The L-Bar mill operated from 1977 until 1981. The mill was decommissioned in 1986-1987 and the associated structural material was buried onsite. As a byproduct of milling operations, approximately 1.7 million tons of uranium ore "tailings" were generated and placed in an earthen impoundment. SWMC submitted the initial *L-Bar Uranium Mine Reclamation and Closure Plan* in October 1986. An amended plan was submitted in February 1989 and the staff approved the plan in May 1989. The plans and specifications embodied in the *L-Bar Uranium Mine Reclamation and Closure Plan* are structured to ensure compliance with the standards for reclamation in 10 CFR Part 40, Appendix A.

Interim reclamation of the tailings impoundment was initiated in September 1988 and was completed in June 1989. However, subsequent degradation related to impoundment diversion channel sedimentation, gully intrusion, differential settlement of the tailings pile, and radon barrier cover cracking necessitated repair work and modifications to the impoundment design (new diversion channel and enlarged sediment trap). As such, final reclamation was not completed until April 2000. In a letter dated January 4, 2001, SWMC submitted the *L-Bar*

*Uranium Mill Tailings Site Reclamation Completion Report* to document the completion of reclamation in accordance with NRC requirements and the conditions of its Source Materials License. In response to the staff's February 2, 2001, request, SWMC submitted additional information in a letter dated March 1, 2001, to support the staff's review of the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report*. In other letters dated March 1, and April 6, 2001, SWMC requested amendments to Source Materials License SUA-1472 to reflect completion of reclamation and to facilitate eventual termination of the license. In this regard, SWMC requested amendments to License Conditions (LCs) 12, 22, 24, 27, 31, 33, and 34. In a letter dated May 1, 2001, the staff responded to SWMC's request to amend LCs 12, 22, 24, 27, 31, and 34 but deferred action on LC 33 pending completion of the review of the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report* and planned final inspection of the reclaimed site and submittal of a final gamma radiation survey by SWMC of the tailings impoundment and buried mill area. The staff conducted its final inspection of the completed reclamation construction activities at the L-Bar site on May 8, 2001, and, in a letter dated June 28, 2001, SWMC submitted the results of the gamma radiation survey to verify the adequacy of the overall decommissioning and reclamation effort to eliminate and dispose of radioactive materials.

### License Condition 33

LC 33 references the plans and specifications that SWMC was required to follow to reclaim the tailings disposal area. Those plans and specifications are specified in the approved *L-Bar Uranium Mine Reclamation and Closure Plan*, as amended by submittals dated April 20, 1989, March 5, 1998, August 11, 1998, February 2, 1999, and July 13, 1999. As reclamation was completed at L-Bar in April 2000 and appropriately documented in the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report*, SWMC requested that LC 33 be deleted since the condition was now satisfied. This TER evaluates SWMC's compliance with the reclamation requirements of LC 33.

### Evaluation of Reclamation of the Tailings Disposal Cell

The following sections provide the results of the staff's evaluation of BCUC's completed reclamation of the tailings disposal cell as documented in the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report*. The staff's evaluation focused on the geotechnical engineering, surface water hydrology, erosion protection, and radiation cleanup and control aspects of reclamation construction and corresponding determinations of compliance with the plans and specifications of the *L-Bar Uranium Mine Reclamation and Closure Plan* and NRC's standards for reclamation in 10 CFR Part 40, Appendix A.

### Geotechnical Engineering Review

NRC staff reviewed the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report* to determine whether the geotechnical engineering aspects of the remedial action were completed in accordance with the applicable construction specifications in the *L-Bar Uranium Mine Reclamation and Closure Plan* and, correspondingly, the requirements of 10 CFR Part 40, Appendix A. Items reviewed included descriptions of construction operations, as-built drawings, laboratory and field testing data, construction inspection reports, and quality assurance summaries. The review was also based on visual observations of the remedial action and an evaluation of test data and records during an on-site inspection.

The reclamation included the construction of an earthen cover on the stabilized tailings. The cover was placed to reduce radon emanation from the tailings. The engineered cover will also provide frost protection against degradation of the compacted soils.

NRC staff reviewed field and laboratory test records and determined that the material placement was in accordance with the project specifications. The review was based on NRC observations and a review of the written records made during reclamation. The review also confirmed that the specified testing frequencies were met.

During its review, the NRC staff noted the following:

1. Appropriate tests (gradation and Atterberg limits) and inspections were performed by the licensee to assure that the proper material type was placed in each phase of construction. Placement and compaction of construction materials were routinely inspected by the licensee to assure that the moisture and density requirements were met and that the soil moisture was uniform throughout the compacted lifts. The loose thickness of the lifts was verified periodically by the licensee to ensure compliance with the specification requirements for each particular type of material.
2. Laboratory and field testing by the licensee was conducted in accordance with acceptable test procedures and by trained and qualified personnel.
3. Frequencies of material testing and inspection comply with the rates specified in the NRC Staff Technical Position on Testing and Inspection Plans.
4. The radon barrier layer was continually inspected by the licensee to assure that the specified lift thicknesses and compaction levels were achieved.
5. The material type, placement, and compaction methods specified for the radon barrier layer resulted in the desired density of the barrier.
6. As-built drawings adequately document that the completed remedial action is consistent with the NRC-approved design.
7. Final slope, elevation, and compaction operations of the various cover layers were adequately inspected to ensure that the final conditions were consistent with those stated in the reclamation plan.

Based on the above observations, the NRC staff concludes that the geotechnical engineering aspects of the tailings cell design and construction are in accordance with the specifications identified in the *L-Bar Uranium Mine Reclamation and Closure Plan* and the requirements of 10 CFR Part 40, Appendix A, Criteria 4(c) and 6(1).

#### Surface Water Hydrology and Erosion Protection Review

NRC staff reviewed the surface water hydrology and erosion protection aspects of remedial actions at the L-Bar site to determine whether they were completed in accordance with the applicable construction specifications as stipulated in the *L-Bar Uranium Mine Reclamation and Closure Plan* and, correspondingly, the requirements of 10 CFR Part 40, Appendix A. Areas of

review included construction operations, laboratory and field testing, and quality assurance audits. In addition, the review was also based on NRC observations of the remedial actions and review of records and testing during NRC onsite inspections.

The reclamation design included erosion protection in several specific areas, including several rock slopes, diversion channels, and rock toes at the outlets of the diversion channels. The riprap was designed to prevent long-term erosion and gullying of the impoundment. The riprap toes were placed to prevent erosion and migration of gullies.

The NRC staff reviewed each of the erosion protection features described above and determined that riprap testing, placement, and configurations complied with specifications in the reclamation plan. The review was partially based on NRC staff observations and review of onsite records during the reclamation activities, as well as assessment of the verification results presented in the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report*. In addition, the staff reviewed records of the placement of riprap on the top and side slopes of the cell and in the diversion channels.

During the review, the NRC staff noted the following:

1. Tests (gradation and durability) and inspections were performed by SWMC to ensure that erosion protection materials were properly selected. The review of the documentation indicated that placement of materials was routinely inspected to ensure that the rock size and gradation specifications were met. Likewise, the thickness of the rock layers was verified periodically by SWMC to ensure compliance with the specifications for the particular type of material.
2. Laboratory and field testing was conducted by SWMC in accordance with specified test procedures.
3. Testing and inspection frequencies used at the site for erosion protection were in compliance with the frequencies specified in the *L-Bar Uranium Mine Reclamation and Closure Plan*.

Based on the above observations, the NRC staff has determined that specified durability and gradation tests were performed during the remedial action. The riprap is of adequate quality and has been placed in an acceptable manner. The staff concludes that the erosion protection aspects of the tailings cell design and construction are in accordance with the specifications in the *L-Bar Uranium Mine Reclamation and Closure Plan* and the requirements of 10 CFR Part 40, Appendix A, Criteria 1(c), 4(d), 6(1), and 12.

#### Radiation Control Review

The criteria and methods for site decommissioning, cleanup, and radon flux control were established in the 1986 and 1989 submittals of the *L-Bar Uranium Mine Reclamation and Closure Plan* and concurred in by the NRC staff in May of 1989, providing assurance that the processing site and disposal cell would meet the requirements of 10 CFR Part 40, Appendix A, Criterion 6. The radiation control aspects of the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report*, supplemented by the gamma radiation survey submitted on June 28, 2001, were reviewed by the staff and the evaluation is as follows.

#### Land and Structures:

A confirmatory survey of SWMC remediation efforts for radioactively contaminated soil was performed by NRC staff in August 1989 and October 1991. Amendment 19 for the L-Bar license dated November 8, 1991, resulted in the deletion of LC 28 and the corresponding recognition of the satisfactory completion of cleanup of the windblown tailings and ore stockpile. The surveys indicated that the land radium levels meet Criterion 6 (6) limits.

The mill site demolition and salvage was completed in 1987. All structures were removed from the site or crushed and buried in the tailings pile or in-place, as indicated in Figures 3-1 and 4-4 of the *L-Bar Uranium Mill Tailings Site Reclamation Completion Report*. The material buried at the former mill site was covered with at least three feet of radon barrier to attenuate the slight levels of radon and gamma radiation from the residual radioactive contamination present in the disposed material. The control of non-radiological hazards associated with the milling wastes required by Criterion 6 (7) should be accomplished by meeting the land cleanup and cell cover criteria in Part 40, Appendix A.

#### Radon Flux Measurement and Estimate of Long-Term Flux:

Radon flux measurements were performed in 1991 by the licensee to meet the U.S. Environmental Protection Agency regulations. Because the radon barrier was completed in 1991 and the NRC flux measurement requirements of Criterion 6 (2) were not finalized until 1994, additional measurements were not performed apart from those taken in 1991. The 1991 data indicated that the average radon flux for the tailings pile at that time was 3.7 pCi/m<sup>2</sup>/s, far below the EPA and NRC limit of 20 pCi/m<sup>2</sup>/s.

The Completion Report indicates that the radon barrier was constructed in accordance with the design specifications. The construction data for the placed radon barrier demonstrates that the measured barrier values (density, moisture, and percent fines) are more conservative than the estimated values used in the design radon flux model. Additional cover material was required to bring the surface to grade and the projected new average cover thickness is 6.4 feet. The depth of cover in some areas is more than double the original modeled required thickness of 4.1 feet to meet the long-term flux limit and protect against potential future wind erosion (0.5 feet loss allowance). To support radon emanation modeling for the radon barrier as built, the licensee performed analyses of samples from 32 locations on the impoundment as described in the report submitted by letter dated April 8, 1998. Additional radon attenuation modeling based on that data resulted in an estimated long-term radon flux of 7.3 pCi/m<sup>2</sup>/s. Therefore, the cover, as constructed, should easily meet the long-term radon flux limit of 20 pCi/m<sup>2</sup>/s in Criterion 6 (1).

#### Cover Radiation Levels:

To demonstrate compliance with a portion of Criterion 6(1) and with Criterion 6(5), the licensee provided information dated June 28, 2001, which substantiates that the direct gamma exposure from the tailings or wastes is reduced to background levels, that the near surface cover material does not contain rocks or waste containing elevated levels of Ra-226, and that the radioactivity is essentially the same as surrounding soils.



## Conclusions:

Based on the above information and on the results of on-site inspections performed by NRC staff during and after decommissioning and reclamation, the staff concludes that the radiological control aspects were performed in accordance with the approved *L-Bar Uranium Mine Reclamation and Closure Plan* and demonstrate compliance with the radiological criteria in 10 CFR Part 40, Appendix A, Criterion 6. The site also complies with the radiological requirements for license termination in 40.42 (j) and (k).

## Summary and Recommended License Changes

Based on the foregoing evaluation of the geotechnical engineering, surface water hydrology and erosion protection, and radiation control aspects of the reclamation of the L-Bar tailings site, the staff concludes that reclamation was performed in accordance with the requirements of 10 CFR Part 40, Appendix A, and the *L-Bar Uranium Mine Reclamation and Closure Plan* as specified in LC 33 of Source Materials License SUA-1472. Accordingly, the staff recommends that LC 33 be deleted, as requested by SWMC in its March 1, and April 6, 2001, letters, since reclamation is acceptably complete. Therefore, LC 33 should be revised as follows:

33. DELETED by Amendment No. 38.

## Environmental Impact Evaluation

An environmental assessment for this action is not required because this action is categorically excluded under 10 CFR Part 51.22(c)(11).

## 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. Sohio Western Mining Company<br>{Applicable Amendments: 4, 16}   |   | 3. License Number<br>SUA-1472      Amend No. 38   |
| 2. c/o Kennecot Energy<br>505 South Gillette Avenue<br>Call Box 3009<br>Gillette, WY 82717-3009 [Applicable Amendments: 4, 5, 16, |   | 4. Expiration Date      Until NRC determines<br>site Reclamation is<br>adequate               |
| 281   |   | 5. Docket or<br>Reference Number      40-8904   |
| 6. Byproduct, Source, and/or Special<br>Nuclear Material<br>Uranium byproducts  | 7. Chemical and/or Physical Form<br><br>Any | 8. Maximum Amount that License May Possess<br>at Any One Time Under This License<br>Unlimited |

9. Authorized place of use: The licensee's uranium milling facilities located in Cibola County, New Mexico

10. The licensee is hereby authorized to possess byproduct material in the form of uranium waste tailings and other byproduct wastes generated by the licensee's past milling operations. The licensee is not authorized to produce uranium concentrate without a license amendment approved by the Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555. [Applicable Amendments: 24]
11. 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. [Applicable Amendments: 24]
12. DELETED By Amendment No. 37
13. 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.
14. Prior to termination of this license, the licensee shall provide for transfer of title to byproduct material and land, including any interests therein (other than land owned by the United States or the State of New Mexico), which is used for the disposal of such byproduct material or is essential to ensure the long term stability of such disposal site to the United States or the State of New Mexico, at the State's option.
15. DELETED by Amendment No. 7.
16. DELETED by Amendment No. 16.

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number SUA-1472

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Number 40-8904

Amendment No. 38

18. The 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, shall be documented. Unless otherwise specified in the NRC regulations all such documentation shall be maintained for a period of at least five years.
19. The Radiation Safety Officer (RSO), who is responsible for radiation safety aspects of the mill site decommissioning, shall possess the minimum qualifications as specified in Section 2.4.1 of Regulatory Guide 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Mills will be As Low As is Reasonably Achievable." For the purposes of this license condition, reference to "uranium mill" or "milling" in Regulatory Guide 8.31 shall mean "uranium mill site reclamation."  
[Applicable Amendments: 8]
20. Written procedures shall be established for site reclamation activities to include personnel and environmental monitoring, and survey instrument calibrations. These procedures shall be reviewed and approved in writing by the RSO before implementation, and whenever a change in procedure is proposed, to ensure that proper radiation protection principles are being applied. In addition, the RSO shall perform a documented review of all existing site procedures at least annually. Construction and inspection records may be transferred to the Duke Engineering & Services, Inc. offices in Austin, Texas.  
  
[Applicable Amendments 7, 16, 28]
21. The licensee shall be required to use a Radiation Work Permit (RWP) for all site work activities where the potential for significant exposure to radioactive material exists and for which no standard written procedure already exists. The RWP shall be issued by the RSO or his designate, qualified by way of specialized radiation protection training, and shall at least describe 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.  
[Applicable Amendments: 7]
22. DELETED By Amendment No. 37.
23. DELETED by Amendment No. 16.
24. DELETED By Amendment No. 37.
25. The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40, Appendix A, Criteria 9 and 10, adequate to cover the estimated costs, if accomplished by a third party, for reclamation of any tailings or waste disposal area, groundwater restoration as warranted, the long-term surveillance fee, and future maintenance as stated in its submittals dated March 2, and July 13, 1999.

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Number 40-8904

Amendment No. 38

Annual updates to the surety amount, required by 10 CFR 40, Appendix A, Criteria 9 and 10, shall be submitted to the NRC at least 3 months prior to the anniversary date which is designated as December 30 of each year. If the NRC has not approved a proposed revision to the surety coverage 30 days prior to the expiration date of the existing surety arrangement, the licensee shall extend the existing surety arrangement 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 fee, changes in engineering plans, activities performed, and any other conditions affecting estimated costs for site closure. The basis for the cost estimate is the NRC-approved reclamation plan or NRC-approved revisions to the plan. The report, "Recommended Outline for Site Specific Reclamation and Stabilization Cost Estimates," outlines the minimum considerations used by the NRC in the review of site closure cost estimates. Reclamation plans and annual updates should follow this outline.

The licensee's currently approved financial surety shall be continuously maintained in an amount not less than \$761,000 for the purpose of complying with 10 CFR 40, Appendix A, Criteria 9 and 10, until a replacement is authorized by the NRC.

[Applicable Amendments: 14, 16, 20, 23, 24, 25, 26, 27, 30, 32, 33,36]

26. DELETED by Amendment No. 6.
27. DELETED By Amendment No. 37.
28. DELETED by Amendment No. 19.
29. DELETED by Amendment No. 16.
30. DELETED by Amendment No. 9.
31. The licensee shall implement a groundwater compliance monitoring program containing the following:
  - A. Sample wells 29A, 17B, 1A, 69, and 81 on an annual frequency for nickel, selenium, uranium, combined radium-226 and -228, thorium-230, nitrate, chloride, sulfate, pH, electrical conductivity, and water level.
 

Sample wells 61, 62, 63, 72, and 100 on an annual frequency for chloride, sulfate, pH, electrical conductivity, and water level.
  - B. Comply with the following groundwater protection standards in mg/l (unless otherwise noted) at point of compliance wells 17B, 1A, 69, and 81, with background being recognized in well 29A:
  - C. DELETED By Amendment No. 31.
  - D. In the event the limits for the constituents in Subsection B are exceeded, the licensee shall propose a new corrective action program with the objective of returning concentrations of those constituents to the limits specified in Subsection B.

The licensee shall, on an annual frequency, submit a groundwater monitoring report. Should a new corrective action program be required under Subsection D, the licensee shall also submit a corrective action program review, by December 31 of each year, that describes the progress towards attaining the groundwater protection standards.

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U.S. NUCLEAR REGULATORY COMMISSION

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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number SUA-1472

Docket or Reference  
Number 40-8904

Amendment No. 38

32. The licensee shall forward to the Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, copies of all correspondence with the State of New Mexico's Environment Department.  
[Applicable Amendments: 9, 24, 28]

33. DELETED By Amendment No. 38.

34. DELETED By Amendment No. 37.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Date September 3, 2001

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