

May 5, 1995

Mr. F. R. Craft, Resident Manager
Homestake Mining Company
P. O. Box 98
Grants, New Mexico 87020

SUBJECT: REDUCTION TO RADIATION MONITORING REQUIREMENTS, SOURCE
MATERIAL LICENSE SUA-1471, HOMESTAKE GRANTS MILL

Dear Mr. Craft:

The U. S. Nuclear Regulatory Commission staff has completed its review of the amendment request submitted in your letter dated January 9, 1995. The review found the proposed revisions to the Grants Mill radiation monitoring program generally acceptable, and the amendment is approved except as noted below. Therefore, pursuant to Title 10 of the Code of Federal Regulations, Part 40, Source Material License SUA-1471 is hereby amended by revising License Conditions (LCs) No. 11, 14, 20, 25, 27, 30, 33 and 35A.

LC No. 14 was amended with alternate language to that proposed in your January 9, 1995, letter. The modification to LC No. 35(A) requested in your letter of January 9, 1995, is not granted in full, as Homestake Mining Company did not request an exemption from 10 CFR Part 20, or include information on the alternate method that would be used to show compliance. These modifications to the January 9, 1995, request were discussed and agreed to in a telephone conversation between yourself and Ken Hooks (NRC) on April 20, 1995.

All other conditions of this license shall remain the same. A copy of the staff's Technical Evaluation Report for the license amendment is Enclosure 1. The license is being revised to incorporate the above modifications (Enclosure 2). An environmental assessment for this action is not required since the license revisions are essentially administrative in nature and are categorically excluded under 10 CFR 55.22(c)(11).

If you have any questions regarding this letter or the enclosures, please contact Ken Hooks at (301) 415-7777.

Sincerely,
Joseph J. Holonich, Chief
High-Level Waste and Uranium
Recovery Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 40-8903
SUA-1471, Amendment No. 21
Enclosures: As stated
cc: J. Virgona, DOE/Grand Junction
Shawn Ghose, USEPA, Region 6
Kerrie Neet, NMED, Superfund
Section
Diane Malone, Navajo Superfund Project

DISTRIBUTION w/ Encl.: Central File PUBLIC JSurmeier MDell
JAustin MWetzer NMSS r/f DWM r/f HLUR r/f CCain, RIV
w/o Encl.: MFederline JHolonich AGarcia r/f

DOCUMENT NAME: S:\DWM\HLUR\krh\hmstk.ltr

TICKET NO:

OFC	HLUR	E	PAHB		HLUR		HLUR		
NAME	KHooks/aeg	VH	CMcKerney		DGillen		JHolonich	fu	
DATE	5/14/95	11	5/14/95		5/15/95		5/15/95		1/95

TECHNICAL EVALUATION REPORT

DATE: March 28, 1995

DOCKET NO. 40-8903

LICENSE NO. SUA-1471

LICENSEE: Homestake Mining Company

FACILITY: Grants mill site facility

PROJECT MANAGER: Kenneth Hooks

TECHNICAL REVIEWER: Chris McKenney

RADIATION MONITORING AMENDMENT APPLICATION

SUMMARY AND CONCLUSIONS:

Homestake Mining Company (Homestake) is requesting modification to the existing license for its Grants, NM (Grants) mill site. The site is currently under reclamation with mill demolition, and many clean-up aspects completed. Most of the license conditions, cited by Homestake, can be removed or modified, as requested by Homestake. The change in license condition 35(A) cannot be granted in full, as the licensee needs an environmental monitoring program to show compliance with Part 20. Note that the deletion of license condition 25 does not provide an exemption to Part 20, Subpart C, as the license condition specified the time and method of internal dose calculation; therefore, the provisions of 10 CFR Part 20, Subpart C, still apply.

DESCRIPTION OF LICENSEE'S AMENDMENT REQUEST:

Homestake is requesting modifications to its current license with regard to its radiation monitoring program. The licensee has requested to remove or modify eight license conditions. The requested modifications are as follows:

L.C.	Statement	Modification
11.	The licensee shall determine that employees leaving work are not contaminated with radioactive materials. When an employee has showered and changed clothes prior to leaving work, he may be assumed to be free of contamination.	Remove

14.	Release of equipment or packages from the restricted area shall be in accordance with the attachment to SUA-1471 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.	Amend w/ "Any equipment, supplies, or manpower that comes in contact with tailings sand and/or slimes will be determined that no radioactive material is leaving the site by a personal scan and equipment decontamination.
20.	The licensee is hereby exempted from the requirements of Section 20.203(e)(2) of 10 CFR 20 for areas within the mill provided that all entrances to the mill are conspicuously posted in accordance with Section 20.203(e)(2) and with the words, "Any area within this mill may contain radioactive material."	Remove
25.	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 airborne ore dust and yellowcake samples shall be analyzed in a timely manner to allow exposure calculations to be performed in accordance with this condition. Required nonroutine monitoring for ore dust and yellowcake exposure shall be analyzed and the results reviewed by the RPA within 2 working days after sample collection.	Remove
27.	All liquid effluents from mill process buildings, with the exception of sanitary wastes, shall be discharged to the tailings impoundment.	Remove

30.	The licensee shall implement a program to minimize dispersal of dust from the ore stockpile area(s). This program shall include written operating procedures. The effectiveness of the control method used shall be evaluated weekly by means of a documented inspection.	Remove
33.	All eating areas and change rooms located in mill process areas shall be spot-checked weekly for removable surface contamination. Areas shall be promptly cleaned if surface contamination levels exceed the values listed in Table 1 or Regulatory Guide 8.30. In addition, all laboratory surfaces used for preparation of bioassay samples shall be spot-checked prior to sample analysis and decontaminated if removable contamination levels exceed 200 dpm alpha/100 cm ² . The results of all surveys and spot checks shall be documented.	Remove
35(A)	The licensee shall implement a compliance monitoring program containing the following: A. Implement the monitoring program shown in Table 2 of the licensee's September 2, 1993 submittal.	Modify to remove environmental monitoring and modify occupational monitoring requirements.

TECHNICAL EVALUATION:

The Grants mill site is undergoing reclamation and mill demolition activities. According to Homestake, some reclamation activities are either complete or very near completion. Most of the tailings impoundments have been covered with at least a radon barrier or interim cover. Nearly all the windblown has been identified and placed in the tailings impoundment. Mill demolition is complete. Currently, a soil verification program is ongoing, along with final consolidation and recontouring of the large tailings impoundment.

Many of the license conditions that Homestake is requesting to be removed were specific license conditions related to activities at the mill processing buildings, and/or operations. In addition, the reclamation has reduced the radiological hazards present at the mill site. Therefore, it is appropriate

that many of the license conditions be removed or modified. The following license conditions should be removed: 11, 20, 25, 27, 30, and 33. The removal of license condition 25 does not constitute an exemption to Part 20; Homestake still must comply with the requirements in 10 CFR Part 20, Subpart C. License condition 14 can be amended with the following alternative language:

"Any equipment, supplies, or manpower that comes in contact with tailings sand and/or slimes will be determined to be free of radioactive material by a personal scan and equipment decontamination."

The modification to license condition 35(A) is not granted in full as the licensee must request an exemption from Part 20, or include information on the method that the licensee will alternately show compliance, to end environmental monitoring. Homestake did not request an exemption or provide information on a revised radiation protection program. License condition 35(A) can be modified to include the new occupational monitoring requirements but cannot be modified to remove all environmental monitoring from the Grants mill site. Since releases will continue, with potential offsite exposure, the licensee will need to continue environmental monitoring as currently required by license condition 35(A) to determine offsite dose. However, the licensee can submit an amendment request for exemption or propose an alternative method of compliance.

Additionally, LC 37(H) has been deleted since the requirement was satisfied by Homestake's submittal of a revised site Reclamation Plan by letter dated October 29, 1993.

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 39, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license 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		3. License number	SUA-1471, Amendment No. 21
1. Homestake Mining Company		4. Expiration date	Until NRC determines site reclamation is adequate.
2. P.O. Box 98 Grants, New Mexico 87020		5. Docket or Reference No.	[Applicable Amendment: 12] 40-8903

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
Uranium	Any	Unlimited

- 9. Authorized Place of Use: The licensee's uranium mill located in Cibola County, New Mexico, and the licensee's auxiliary ion exchange facility located in McKinley County, New Mexico. [Applicable Amendment: 12]
- 10. This license authorizes only the possession of residual uranium and byproduct material in the form of uranium waste tailings and other byproduct waste generated by the licensee's past milling operations in accordance with Tables 1 and 3 and the procedures submitted by letter dated September 2, 1993.

Anywhere the word "will" is used, it shall denote a requirement.

[Applicable Amendments: 2, 6, 12, 16]

- 11. DELETED by Amendment 21.
- 12. The licensee shall implement an embankment inspection program as specified in the submittal dated September 21, 1987, with the exception that quarterly dam evaluations need no longer be performed. The annual training of site personnel responsible for dam inspections shall be conducted by a registered professional engineer.

An annual technical evaluation report of the large and small tailings impoundments shall be prepared under the direction of a registered professional engineer experienced in dam design and construction. The evaluation should include an inspection of the large and small tailings impoundments, a review and assessment

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

SUA-1471, Amendment No. 21

Docket or Reference Number

40-8903

of all associated monitoring data and inspection reports, and an overall judgement of the effectiveness of the inspection program. A copy of the report shall be submitted to the NRC, within 1 month of completion of the report.

[Applicable Amendments: 2, 12, 14]

13. 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 milling operations.
14. Any equipment, supplies or manpower that come in contact with tailing sand and/or slimes will be determined to be free of radioactive material by a personal scan and equipment decontamination. [Applicable Amendment: 21]
15. The results of all effluent and environmental monitoring required by this license shall be reported in accordance with 10 CFR 40, Section 40.65, with copies of the report sent to the NRC. Monitoring data shall be reported in the format shown in the attachment to SUA-1471 entitled, "Sample Format for Reporting Monitoring Data." All ground-water monitoring data shall be reported as described in License Condition No. 35. [Applicable Amendments: 5]
16. 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.
17. 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.
18. The licensee shall not make any changes to the approved tailings retention system without specific prior approval of the NRC, in the form of a license amendment.
19. DELETED by Amendment No. 17.
20. DELETED by Amendment No. 21.
21. The mill Radiation Protection Administrator (RPA), who is responsible for conducting the mill radiation safety program, 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."
22. The results of sampling, analyses, surveys and monitoring; the results of

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

SUA-1471, Amendment No. 21

Docket or Reference Number

40-8903

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.

23. Standard operating procedures (SOPs) shall be established for all operational process activities involving radioactive materials that are handled, processed, or stored. Standard operating procedures for operational activities shall enumerate pertinent radiation safety practices to be followed. Additionally, written procedures shall be established for nonoperational activities to include in-plant and environmental monitoring, bioassay analyses, and instrument calibrations. An up-to-date copy of each written procedure shall be kept in the mill area to which it applies.

All written procedures for both operational and nonoperational activities shall be reviewed and approved in writing by the RPA before implementation and whenever a change in procedure is proposed to ensure that proper radiation protection principles are being applied. In addition, the RPA shall perform a documented review of all existing operating procedures at least annually.

24. The licensee shall be required to use a Radiation Work Permit (RWP) for all work or nonroutine maintenance jobs where the potential for significant exposure to radioactive material exists and for which no standard written procedure already exists. The RWP shall be approved by the RPA or his designee, qualified by way of specialized radiation protection training, and shall at least describe the following:
- A. The scope of 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.
25. DELETED by Amendment No. 21.
26. Mill tailings, other than small samples for purposes such as research or analysis, shall not be transferred from the site without specific prior approval of the NRC in the form of a license amendment. The licensee shall maintain a permanent record of all transfers made under the provisions of this condition.
27. DELETED by Amendment No. 21.
28. The licensee shall maintain an NRC-approved financial surety arrangement consistent with 10 CFR 40, Criteria 9 and 10, adequate to cover the estimated costs, if accomplished by a third party, for decommissioning and decontamination of the mill and mill site, reclamation of tailings or waste disposal areas, ground-water restoration, and the long-term surveillance fee. Within 3 months of NRC approval of a revised reclamation plan, the licensee shall submit for NRC

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

SUA-1471, Amendment No. 21

Docket or Reference Number

40-8903

review and approval a proposed revision to the financial surety arrangement if estimated costs for the newly approved plan exceed the amount covered in the existing financial surety. The revised surety arrangement shall then be in effect within 3 months of written NRC approval. Along with each proposed revision or annual update, the licensee shall submit supporting documentation showing a breakdown of costs and the basis for the cost estimate. The attachment to the license entitled, "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.

The licensee's currently approved surety, a Parent Company Guarantee issued by Homestake Mining Company, shall be continuously maintained in an amount no less than \$20,000,000 for the purpose of complying with 10 CFR 40, Criteria 9 and 10, until a replacement is authorized by the NRC. The use of a parent company guarantee necessitates an evaluation of the corporate parent as part of the annual surety update. In addition to the cost information required above, the annual submittal must include updated documentation of the (1) letter from the chief financial officer of the parent company, (2) auditor's special report confirmation of chief financial officer's letter, (3) schedule reconciling amounts in chief financial officer's letter to amounts in financial statements, and (4) parent company guarantee if any changes are appropriate.

[Applicable Amendments: 9, 12]

29. The licensee shall decommission the Homestake Uranium Mill in accordance with Section 2 of the reclamation plan dated January 1991; the licensee's August 28, 1991, response to comments 1-10 of the NRC's August 2, 1991, letter; and Technical Specifications B1 and B2 of the reclamation plan as revised on April 3, 1992. In addition, the licensee shall perform a soil cleanup verification gamma survey and soil sampling program as specified in the submittal of September 15, 1994, and as modified by the submittal of December 13, 1994. [Applicable Amendment: 20]
- A. Deleted by Amendment No. 20.
 - B. Deleted by Amendment No. 20.
 - C. Deleted by Amendment No. 20.
 - D. The licensee shall use only soils obtained from borrow areas outside the restricted area which have not been impacted by site operations to cover the mill disposal area. The location of these borrow areas shall be documented.
 - E. The licensee shall implement a quality control (QC) program for the soil cleanup verification program which consists of recounting using offsite gamma spectroscopy equipment or chemical analysis by a vendor laboratory of at least 15 percent of all soil samples collected. In addition, a minimum of 5 percent of the QC samples shall be chemically analyzed. Results of the QC program shall be evaluated by the Radiation Protection Administrator and the evaluation documented at least monthly during the verification sampling program.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

SUA-1471, Amendment No. 21

Docket or Reference Number

40-8903

F. All decommissioning activities shall be documented. Within 90 days following the completion of mill demolition and disposal activities, the licensee shall submit to the NRC a report documenting the activities and providing summaries of all data generated as part of the radiation safety program for mill decommissioning. In addition, within 90 days following the completion of the soil cleanup and verification program, the licensee shall submit to the NRC a report documenting the cleanup activities and providing the results of all soil sampling and gamma surveys conducted to verify the adequacy of cleanup.

[Applicable Amendment: 15]

30. DELETED by Amendment No. 21.

31. The licensee is authorized to construct and operate a lined brine evaporation pond in accordance with plans, conditions, revisions, and commitments made in conjunction with Ground Water Discharge Plan DP-339, approved by the Ground Water/Hazardous Bureau of the State of New Mexico by a letter dated January 17, 1986, signed by Ernest Rebeck. Such plans, conditions, revisions, and commitments are contained in submittals and correspondence from Homestake Mining Company dated March 22, 1984, April 9, 1984, and April 17, 1986; and includes a commitment by letter dated April 11, 1986, to reclaim the pond area in accordance with applicable reclamation standards after the cessation of operations.

[Applicable Amendments: 5, 8]

32. The licensee shall comply with the following:

- A. The quantity of air sampled and the method of analysis shall result in a lower limit of detection (LLD) for all in-plant air sampling of at least 10 percent of the respective maximum permissible concentration for restricted areas.
- B. Analysis of urine samples shall utilize an LLD of at least 5 ug/l uranium.
- C. A copy of the report documenting the annual ALARA audit shall be submitted to the NRC, review within 30 days of completion of the audit.

[Applicable Amendment: 2]

33. DELETED by Amendment No. 21.

34. DELETED by Amendment No. 4.

35. The licensee shall implement a compliance monitoring program containing the following:

- A. Implement the monitoring program shown in Table 2 of the licensee's September 2, 1993 submittal and Table 3 of the licensee's January 9, 1995, submittal.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number	SUA-1471, Amendment No. 21
Docket or Reference number	40-8903

~~B. Comply with the following ground water protection standards at brine evaporation pond point-of-compliance Wells D1 and BP, at the inactive tailings impoundment point-of-compliance Wells Y and X, and at the active tailings impoundment point-of-compliance Wells S4, S3, M5, and DQ with background being recognized in Well P:~~

chromium = 0.06 mg/l, molybdenum = 0.03 mg/l, selenium = 0.10 mg/l, vanadium = 0.02 mg/l, uranium = 0.04 mg/l, radium-226 and -228 = 5.0 pCi/l, and thorium-230 = 0.30 pCi/l.

- C. Implement the corrective action program described in the September 15, 1989, submittal due to exceeding ground-water protection standards, with the objective of returning the concentrations of chromium, molybdenum, selenium, thorium-230, uranium, and vanadium to the concentration limits specified in 35(B) above.
- D. Operate the lined evaporation pond and enhanced evaporation system as described in the June 8 and 28, 1990, submittals.
- E. Submit a semiannual ground-water monitoring report in accordance with the reporting requirements of 10 CFR 40.65. Also, submit, by February 28 of each year, a performance review of the corrective action program that details the progress towards attaining ground-water protection standards.

[Applicable Amendments: 3, 4, 5, 7, 8, 10, 11, 16, 21]

36. The licensee shall complete site reclamation in accordance with an approved reclamation plan. The ground-water corrective action plan shall be conducted as authorized by License Condition No. 35. All activities shall be completed in accordance with the following schedules.

A. To ensure timely compliance with target completion dates established in the Memorandum of Understanding with the Environmental Protection Agency (56 FR 55432, October 25, 1991), the licensee shall complete reclamation to control radon emissions as expeditiously as practicable, considering technological feasibility, in accordance with the following schedule:

(1) Windblown tailings retrieval and placement on the pile:

For the Large Impoundment - December 31, 1996.

For the Small Impoundment - May 31, 1997.

(2) Placement of the interim cover to decrease the potential for tailings dispersal and erosion:

For the Large Impoundment - December 31, 1996.

For the Small Impoundment - May 31, 1997.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

SUA-1471, Amendment No. 21

Docket or Reference Number

40-8903

- (3) Placement of final radon barrier designed and constructed to limit radon emissions to an average flux of no more than 20 pCi/m²/s above background:

For the Large Impoundment which has no evaporation ponds - December 31, 1996.

For the Small Impoundment, tailings pile surface areas are essentially covered by evaporation ponds constructed as part of the ground-water corrective action program. Prior to December 31, 2001, the areas not covered by the evaporation ponds shall have final radon barrier in place. Final radon barrier placement over the entire pile shall be completed within 2 years of completion of ground-water corrective actions.

- B. Reclamation, to ensure required longevity of the covered tailings and ground-water protection, shall be complete as expeditiously as is reasonably achievable, in accordance with the following target dates for completion:

- (1) Placement of erosion protection as part of reclamation to comply with Criterion 6 of Appendix A of 10 CFR Part 40:

For the Large Impoundment - September 30, 1999.

For the Small Impoundment - July 1, 2014.

- (2) Projected completion of ground-water corrective actions to meet performance objectives specified in the ground-water corrective action plan - May 1, 2010.

- C. Any license amendment request to revise the completion dates specified in Section A must demonstrate that compliance was not technologically feasible (including inclement weather, litigation which compels delay to reclamation, or other factors beyond the control of the licensee).

- D. Any license amendment request to change the target dates in Section B above, must address added risk to the public health and safety and the environment, with due consideration to the economic costs involved and other factors justifying the request such as delays caused by inclement weather, regulatory delays, litigation, and other factor beyond the control of the licensee.

[Applicable Amendment: 13]

37. The licensee shall reclaim the large and small tailings impoundments as stated in their October 29, 1993, including the following requirements.

- A. The cover system for the large tailings impoundment shall be as defined on Figure 3.4 of Attachment #5 to the licensee's June 30, 1993, submittal except the clayey sand radon barrier shall be 8 feet thick and shall consist of minus 3/4-inch material, containing at least 25 percent passing the No. 200

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

SUA-1471, Amendment No. 21

Docket or Reference Number

40-8903

sieve, Atterberg limits plotting above the "A" line; and shall be compacted in 6-inch lifts to at least 95 percent of Standard Proctor density within minus 2 to plus 2 percent of the optimum moisture content.

- B. The radon barrier for the small impoundment shall be 14 feet thick and shall consist of minus 3/4-inch material, containing at least 25 percent passing the No. 200 sieve, Atterberg limits plotting above the "A" line; and shall be compacted in 6-inch lifts to at least 95 percent of Standard Proctor density within minus 2 to plus 2 percent of the optimum moisture content.
- C. The licensee shall submit a construction quality control program for NRC review and approval prior to placing any portion of the radon barrier that will ensure that the specification which limits the activity of the radon barrier material to 5 pCi/g above background is not exceeded.
- D. The construction quality assurance and control program shall be as defined in the Staff Technical Position On Testing and Inspection (NRC, 1989). The acceptable correlation between ASTM D 2922 and ASTM D 1556 shall be as defined in the licensee's April 30, 1992, submittal.
- F. The radon barrier shall not be placed on the top surface of the large tailings impoundment until the settlement has been demonstrated to be at least 90 percent of expected settlement, and the results of this determination have been reviewed and accepted by the NRC. The radon barrier may be placed on the large impoundment side slopes following final grading of the impoundment. Care shall be taken to preclude the possibility of ponding. Before the erosion protection is placed, it shall be verified that the radon barrier material meets the specifications.
- G. The adequacy of the erosion protection proposed for the side slopes of both the large and small impoundments shall be reevaluated considering any increases in impoundment heights due to the revised radon attenuation cover design.
- H. DELETED by Amendment No. 21.
- I. A completion report shall be provided within 6 months of the completion of construction. This report, including as-built drawings, shall verify that reclamation of the site has been performed according to the approved plan. The report shall also include summaries of results of the quality assurance and control testing to demonstrate that approved specifications were met.

[Applicable Amendments: 14, 21]

38. The licensee is authorized to use water collected as part of the site ground-water corrective action program for conditioning soils during placement of the interim cover or the radon barrier on the tailings impoundments. The licensee shall also analyze samples of the collection water being used for this purpose for radium-226 and 228 content semiannually. If sample results exceed 30 pCi/l combined radium, the licensee shall perform an evaluation of the potential impacts of using this

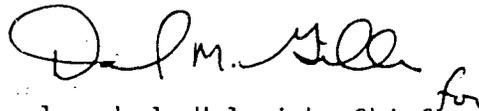
**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number SUA-1471, Amendment No. 21
Docket or Reference number 40-8903

~~water on the required design of the radon barrier and submit the evaluation for NRC review within 30 days of receipt of sample results. [Applicable Amendment: 18]~~

39. The licensee is authorized to construct and operate a lined evaporation pond, located between the existing evaporation pond (#1) and the existing brine ponds, in accordance with plans and commitments contained in submittals and correspondence from Homestake Mining Company dated July 26, 1994; August 16, 1994; August 19, 1994; and September 2, 1994; and September 15, 1994. The NRC shall be notified by the licensee of any changes or revisions to the design. The licensee shall notify the NRC 30 days prior to start of filling the pond, at which time the NRC may choose to inspect the pond and construction records. Final reclamation shall consist of movement of liner and dike material to the small tailings impoundment. Underlying soils will be sampled for radium-226 content, and if above site standard of 5.5 pCi/gram, soils will be excavated and placed on the small impoundment. [Applicable Amendment: 19]

FOR THE NUCLEAR REGULATORY COMMISSION



for
Joseph J. Holonich, Chief
High-Level Waste and Uranium Recovery
Projects Branch
Division of Waste Management, NMSS

Date 5/5/95