July 24, 2002

Michael L. Griffin
Manager of Environmental and Regulatory Affairs
Crow Butte Resources, Inc.
86 Crow Butte Road
Post Office Box 169
Crawford, NE 69339-0169

SUBJECT: LICENSE AMENDMENT 12, CROW BUTTE RESOURCES *IN SITU* LEACH FACILITY, LICENSE NO. SUA-1534

Dear Mr. Griffin:

We have completed our review of your request to amend Materials License SUA-1534, License Condition (LC) 9.5. You submitted the amendment request by letter dated September 18, 2001, and revised it by letter dated April 19, 2002. You requested that LC 9.5 be revised to indicate a change in the surety amount from $12,026,303 to $12,355,260.00, in an Irrevocable Standby Letter of Credit issued by the Royal Bank Of Canada (New York Branch), in favor of the State of Nebraska. We have approved your request, and the revised amount is reflected in amendment 12 (attached).

Also, per your request in a letter dated September 12, 2001, the NRC staff has administratively incorporated the Standard License Conditions (SLCs). SLC 9.4 incorporates the Change, Test, and Experiment License Condition which is the basis for the performance based license. SLC 9.4 has been established to help reduce regulatory burden and allows the licensee to make changes to the facility and operating procedures as described in the license application, and to conduct test or experiments not described in the license application. The licensee shall obtain a license amendment prior to implementing a proposed change, test, or experiment if the results of the proposed change, test or experiment would apply to any of the criteria in SLC 9.4 (B). A Safety and Environmental Review Panel (SERP) consisting of a minimum of three individuals with expertise in management, operations and/or construction, and radiation safety shall make the determination concerning (B) and (C) criteria. Additionally, incorporating SLC 9.4 allows the deletion of LC 11.7 and 12.7.

SLC 9.7 was incorporated per your request.

SLC 9.12 sets forth the requirement that the licensee shall follow the required regulatory guides as stated in the license. LC 9.13, 10.9, 10.11, 10.12, 10.13, 11.5, and 12.6 are covered in the regulatory guides and have been deleted. However, since Regulatory Guide 8.22 contains only corrective actions and no reporting criteria, SLC 11.8 and 11.9 have been added, requiring reporting of uranium uptake incidents in the annual ALARA report or to the NRC Project Manager.

July 24, 2002

SLC 12.2 was subsituted for LC 12.2 and addresses spills, pond, leaks, excursions, and incident/event reporting that may require notification to the NRC Project Manager. Other reporting requirements for events or incidents are specified in 10 CFR §40.60, and 10 CFR 20, Subpart M, and the licensee shall have procedures to evaluate the consequences to determine if the criteria is met for reporting to the NRC Operations Center. If the licensee is required to report any spills, pond leaks, excursions of 11e(2) by-product material, and process chemicals that may have an impact on the environment, or any other incidents/events to State or Federal Agencies, a notification shall be made to the NRC Project Manager by telephone or electronic mail within 48 hours of the event. Additionally, this SLC removes LC 12.3.

These changes to Materials License SUA-1534 were discussed between you and Mr. John Lusher, the NRC Project Manager for the Crow Butte facility, on July 10, 2002. If you have any questions concerning this letter or the enclosure, please contact Mr. Lusher at (301) 415-7694 or by e-mail to JHL@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/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Daniel M. Gillen, Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No. 40-8943
License No. SUA-1534

Enclosures: NRC Safety Evaluation Report (Enclosure 1)
Materials License SUA-1534, Amendment 12 (Enclosure 2)

cc: Stephen P. Collings, CBR, Denver
Dave Miesbach, Nebraska, UIC, DEQ
Dave Carlson, Nebraska, UIC, DEQ
Sheryl K. Rogers, Nebraska, RMP, PHA

SLC 12.2 was changed to address, Spills, Pond Leaks, Leaks, Excursions, and Incident/Event Reporting, that may require notification to the NRC Project Manager. Other reporting requirements for events or incidents are specified in 10 CFR §40.60, and 10 CFR 20, Subpart M, and the licensee shall have procedures to evaluate the consequences to determine if the criteria is met for reporting to the NRC Operations Center. If the licensee is required to report any spills, pond leaks, excursions of 11e(2) by product material, and process chemicals that may have an impact on the environment, or any other incidents/events to State or Federal Agencies, a notification shall be made to the NRC Headquarters Project Manager (PM) by telephone or electronic mail with 48 hours of the event. Additionally, this License Condition removes License Condition 12.3.

These changes to Materials License SUA-1534 were discussed between you and Mr. John Lusher, the NRC Project Manager for the Crow Butte facility, on July 10, 2002. If you have any questions concerning this letter or the enclosure, please contact Mr. Lusher at (301) 415-7694 or by e-mail to JHL@nrc.gov.

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Fuel Cycle Facilities Branch
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Docket No. 40-8943
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Enclosures: NRC Safety Evaluation Report (Enclosure 1)
Materials License SUA-1534, Amendment 12 (Enclosure 2)

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Closes TACS L52375 and L52379

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DATE	7/19/02		7/19/02		7/24/02		7/24 /02	

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SAFETY EVALUATION REPORT

ENVIRONMENTAL REVIEW:
The staff has determined that the following conditions have been met:

I. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite,
II. There is no significant increase in individual or cumulative occupational radiation exposure,
III. There is no significant construction impact, and
IV. There is no significant increase in the potential for or occurrences from radiological accidents.

Accordingly, pursuant to 10 CFR 51.22(c)(10)(11) , neither an environmental assessment nor an environmental impact statement is warranted for this action.

REFERENCES:
Code of Federal Regulations (CFR), Title 10, Chapter I - Nuclear Regulatory Commission, Parts 40 and 51, revised as of January 1, 2002.

Crow Butte Resources, Inc., Request for License Amendment for incorporation of Standard License Conditions by letter dated September 12, 2001.

NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

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 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	
1. Crow Butte Resources, Inc.	3. License Number SUA-1534, Amendment 12
2. 274 Union Blvd. Suite 310 Lakewood, Colorado, 80228 [Applicable Amendments: 6, 10]	4. Expiration Date February 28, 2008 5. Docket No. 40-8943 Reference No.

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
a.. Natural Uranium	Any	a. Unlimited
b. Byproduct material as defined in 10 CFR 40.4	Unspecified	b. Quantity generated under Operations authorized by this license

SECTION 9: **Administrative Conditions**

9.1 Authorized place of use shall be the licensee's Crow Butte uranium recovery and processing facilities in Dawes County, Nebraska.

9.2 All written notices and reports to NRC required under this license shall be addressed to the Chief, Fuel Cycle Licensing Branch, c/o Document Control Desk, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Materials Safety and Safeguards, U. S. Nuclear Regulatory Commission, 11545 Rockville Pike, Two White Flint North, Rockville, MD 20852-2738.

Required telephone notification shall be made to the NRC Operations Center at (301) 816-5100, unless otherwise specified in license conditions.

[Applicable Amendment: 7, 12]

9.3 The licensee shall conduct operations in accordance with the commitments, representations, and statements contained in the license application dated December 1995, as amended by submittals dated April 1, June 25, July 28, October 31, 1997, January 14, 2000, September 12, 2001, and April 19, 2002, which are hereby incorporated by reference, except where superseded by license conditions below.

Whenever the word "will" or "shall" is used in the above referenced documents, it shall denote a requirement.

[Applicable Amendment: 11, 12]

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9.4 Change, Test and Experiment License Condition

A) The licensee may, without obtaining a license amendment pursuant to §40.44, and subject to conditions specified in (b) of this condition:

I make changes in the facility as described in the license application (as updated),

ii make changes in the procedures as described in the license application (as updated), and

iii conduct test or experiments not described in the license application (as updated).

B) The licensee shall obtain a license amendment pursuant to §40.44 prior to implementing a proposed change, test or experiment if the change, test, or experiment would:

i Result in any appreciable increase in the frequency of occurrence of an accident previously evaluated in the license application (as updated);

ii Result in any appreciable increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the license application (as updated);

iii Result in any appreciable increase in the consequences of an accident previously evaluated in the license application (as updated);

iv Result in any appreciable increase in the consequences of a malfunction of an SSC previously evaluated in the license application (as updated);

v Create a possibility for an accident of a different type than any previously evaluated in the license application (as updated);

vi Create a possibility for a malfunction of an SSC with a different result than previously evaluated in the license application (as updated);

vii Result in a departure from the method of evaluation described in the license application (as updated) used in establishing the final safety evaluation report (FSER) or the environmental assessment (EA) or technical evaluation reports (TERs) or other analysis and evaluations for license amendments.

viii For purposes of this paragraph as applied to this license, SSC means any SSC which has been referenced in a staff SER, TER, EA, or environmental impact statement (EIS) and supplements and amendments thereof.

C) Additionally the licensee must obtain a license amendment unless the change, test, or experiment is consistent with the NRC conclusions, or the basis of, or analysis leading to, the conclusions of actions, designs, or design configurations analyzed and selected in the site or facility Safety Evaluation Report, TER, and EIS or EA. This would include all supplements and amendments, and TERs, EAs, EISs issued with amendments to this license.

D) The licensee's determinations concerning (b) and (c) of this condition, shall be made by a Safety and Environmental Review Panel (SERP). The SERP shall consist of a minimum of three individuals. One

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member of the SERP shall have expertise in management (e.g., Plant Manager) and shall be responsible for financial approval for changes; one member shall have expertise in operations and/or construction and shall have responsibility for implementing any operational changes; and, one member shall be the radiation safety officer (RSO) or equivalent, with the responsibility of assuring changes conform to radiation safety and environmental requirements. Additional members may be included in the SERP as appropriate, to address technical aspects such as groundwater, hydrology, surface-water hydrology, specific earth sciences, and other technical disciplines. Temporary members or permanent members, other than the three above-specified individuals, may be consultants.

E) The licensee shall maintain records of any changes made pursuant to this condition until license termination. These records shall include written safety and environmental evaluations made by the SERP that provide the basis for determining changes are in compliance with (b) of this condition. The licensee shall furnish, in an annual report to the NRC, a description of such changes, test, or experiments, including a summary of the safety and environmental evaluation of each. In addition, the licensee shall annually submit to the NRC changed pages, which shall include both a change indicator for the area changed, e.g. a bold line vertically drawn in the margin adjacent to the portion actually changed, and a page change identification (date of change or change number or both), to the operations plan and reclamation plan of the approved license application (as updated) to reflect changes made under this condition.

[Applicable Amendment 12]

9.5 The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40, Appendix A, Criterion 9, adequate to cover the estimated reclamation and closure costs, if accomplished by a third party, for all existing operations and any planned expansions or operational changes for the upcoming year. Reclamation includes all cited activities and groundwater restoration, as well as off-site disposal of all 11e.(2) byproduct material.

Within three months of NRC approval of a revised closure plan and cost estimate, the licensee shall submit for NRC review and approval, a proposed revision to the financial surety arrangement if estimated costs in the newly approved site closure plan exceed the amount covered in the existing financial surety. The revised surety shall then be in effect within three months of written NRC approval.

Annual updates to the surety amount, required by 10 CFR 40, Appendix A, Criterion 9, shall be provided to NRC by October 1 of each year. If 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 one year. Along with each proposed revision or annual update of the surety, 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.

At least 90 days prior to beginning construction associated with any planned expansion or operational change which was not included in the annual surety update, the licensee shall provide for NRC approval an updated surety to cover the expansion or change.

The licensee shall also provide NRC with copies of surety-related correspondence submitted to the State of Nebraska, a copy of the State's surety review, and the final approved surety arrangement. The licensee also must ensure that the surety, where authorized to be held by the State, identifies the NRC-related portion of the surety and covers the above-ground decommissioning and decontamination, the cost of offsite disposal, soil and water sample analyses, and groundwater restoration associated

with the site. The basis for the cost estimate is the NRC-approved site closure plan or the NRC-approved revisions to the plan. Reclamation/decommissioning plan, cost estimates, and annual updates should follow the outline in Appendix E to NUREG-1569 (NRC, 1997), entitled "Recommended Outline for Site-Specific *In Situ* Leach Facility Reclamation and Stabilization Cost Estimates."

Crow Butte Resources, Inc.'s currently approved surety instrument, an Irrevocable Standby Letter of Credit issued by the Royal Bank Of Canada (New York Branch), in favor of the State of Nebraska, shall be continuously maintained in the sum total amount of no less than $12,355,260 for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9, until a replacement is authorized by both the State of Nebraska and NRC.

[Applicable Amendments: 1, 2, 5, 9, 12]

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

All written procedures for both operational and non-operational activities shall be reviewed and approved in writing by the site Corporate Radiation Safety Officer (CRSO) before implementation and whenever a change in procedure is proposed to ensure that proper radiation protection principles are being applied. In addition, the CRSO shall perform a documented review of all existing SOPs at least annually.

9.7 The licensee shall dispose of 11e.(2) byproduct material from the Crow Butte Facility at a site licensed by NRC or an NRC Agreement State to receive 11e.(2) byproduct material. The licensee's approved waste disposal agreement must be maintained on-site. In the event the agreement expires or is terminated, the licensee shall notify NRC in writing, in accordance with License Condition 9.2, within 7 days after the date of expiration or termination. A new agreement shall be submitted for NRC approval within 90 days after expiration or termination unless further delay is justified, or the licensee will be prohibited from further lixiviant injection.

9.8 Release of equipment, materials, or packages from the restricted area shall be in accordance with the NRC guidance document entitled "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated May 1987, or suitable alternative procedures approved by NRC prior to any such release.

9.9 Before engaging in any construction activity not previously assessed by NRC, the licensee shall complete a cultural resource inventory. All construction associated with the proposed development will be completed in compliance with the National Historic Preservation Act of 1966 (as amended) and its implementing regulations (36 CFR Part 800), and the Archaeological Resources Protection Act of 1979 (as amended) and its implementing regulations (43 CFR Part 7).

In order to ensure that no unapproved disturbance of cultural resources occurs, any work resulting in the discovery of previously unknown cultural artifacts shall cease. The artifacts shall be inventoried and evaluated in accordance with 36 CFR Part 800, and no disturbance shall occur until the licensee has received authorization from NRC to proceed.

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Prior to any developmental activity in the immediate vicinity of the six “potentially eligible” sites identified in Section 2.4 of the approved license application, the licensee shall provide documentation of its coordination with the Nebraska State Historical Society to NRC.

9.10 The licensee shall conduct operations within the permit area boundaries shown in Figure 1.3-1 of the approved license application, as amended by the submittal dated July 28, 1997.

9.11 The licensee is hereby exempted from the requirements of Section 20.1902(e) of 10 CFR Part 20 for areas within the facility, provided that all entrances to the facility are conspicuously posted in accordance with Section 20.1902(e) and with the words, "**ANY AREA WITHIN THIS FACILITY MAY CONTAIN RADIOACTIVE MATERIAL .**"

9.12 The licensee shall follow the guidance set forth in U.S. Nuclear Regulatory Commission, Regulatory Guides 8.22, “Bioassay at Uranium Recovery Facilities,” 8.30, “Health Physics Surveys in Uranium Recovery Facilities,” and 8.31, “Information Relevant to Ensuring that Occupational Radiation Exposure at Uranium Recovery Facilities will be As Low As is Reasonably Achievable (ALARA),” or NRC-approved equivalent.

9.13 [DELETED by Amendment No. 12]

9.14 [DELETED by Amendment No. 4]

SECTION 10: Operations, Controls, Limits, and Restrictions

10.1 The licensee shall use a lixiviant composed of native groundwater, with added sodium carbonate/bicarbonate and oxygen or hydrogen peroxide, as described in the approved license application.

10.2 The licensee shall construct all wells in accordance with methods described in Section 3.1.2 of the approved license application.

Mechanical integrity tests shall be performed on each injection and production well before the wells are utilized and on wells that have been serviced with equipment or procedures that could damage the well casing. Additionally, each well shall be retested at least once each five (5) years it is in use. The integrity test shall pressurize the well to 125 percent of the maximum operating pressure and shall maintain 90 percent of this pressure for 20 minutes to pass the test. A single point resistance test may be used only in conjunction with another approved well integrity testing method. If any well casing failing the integrity test cannot be repaired, the well shall be plugged and abandoned.

10.3 The licensee shall establish pre-operational baseline groundwater quality data for all well field units. Baseline water quality sampling shall provide representative pre-operational groundwater quality data and restoration criteria as described in the approved license application.

The data shall consist, at a minimum, of the following sampling and analyses:

A. Three samples shall be collected from production and injection wells at a minimum density of one production or injection well per 4 acres. These samples shall be collected at least 14 days apart.

B. The samples shall be analyzed for ammonia, arsenic, barium, cadmium, calcium, chloride, copper, fluoride, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, nitrate, pH, potassium,

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radium-226, selenium, sodium, sulfate, total carbonate, total dissolved solids, uranium, vanadium, and zinc.

C. Groundwater restoration goals shall be established on a parameter-by-parameter basis for the constituents identified in License Condition 10.3B. The primary goal of restoration shall be on a parameter-by-parameter basis to return the average well field unit concentration to baseline conditions. The secondary goal of groundwater restoration shall be on a parameter-by-parameter basis to return the average well field unit concentration to the numerical class-of-use standards established by the Nebraska Department of Environmental Quality, as described in section 6.1.3 of the approved license application. The licensee shall conduct groundwater restoration activities in accordance with the groundwater restoration plan submitted by letter dated November 26, 1996.

[Applicable Amendment: 11]

10.4 The licensee shall establish upper control limits (UCLs) in designated upper aquifer and perimeter monitoring wells before lixiviant is injected in each well field unit. The UCLs shall be established by collecting and analyzing groundwater samples from those designated wells according to the following criteria:

A. Three samples shall be collected from each designated monitoring well at a minimum density of: 1) one upper aquifer monitoring well per 5 acres of well field area, and 2) all perimeter monitoring wells. These samples shall be collected at least 14 days apart. The results of these analyses shall constitute the baseline for each designated well.

B. The samples shall be analyzed for the following indicator parameters: chloride, sodium, sulfate, conductivity, and total alkalinity.

C. The UCLs shall be calculated for each indicator parameter, in each monitoring well, as equal to 20 percent above the maximum concentration measured for that parameter, among the three baseline samples. For those indicator parameters with baseline concentrations that average 50 mg/L or less, the UCL for that parameter may be calculated as equal to 20 percent above the maximum baseline concentration, the baseline average plus 5 standard deviations, or the baseline average plus 15 mg/L.

[Applicable Amendments: 8, 10]

10.5 The plant throughput shall not exceed a maximum flow rate of 5000 gallons per minute, excluding restoration flow. Annual yellowcake production shall not exceed 2 million pounds.

10.6 Each of the R&D evaporation ponds shall have at least 0.9 meters (3 feet) of freeboard. Each of the commercial evaporation ponds shall have at least 1.5 meters (5 feet) of freeboard.

Additionally, the licensee shall maintain, at all times, sufficient reserve capacity in the evaporation pond system to enable transferring the contents of a pond to the other ponds. In the event of a leak and subsequent transfer of liquid, freeboard requirements shall be suspended during the repair period.

10.7 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 solar evaporation ponds; disposed by land irrigation in accordance with the licensee's proposal submitted on August 3, 1988, as

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modified by its submittal on June 7, 1993; or deep well injected in accordance with the licensee's report submitted on August 24, 1993, as modified by submittals dated December 7, 1995, April 3, 1996, and September 12, 2000.

[Applicable Amendment: 7]

10.8 The licensee shall maintain effluent control systems as specified in Sections 4.1 and 5.7.1.1 of the approved license application, with the following exceptions:

A. If any of the yellowcake emission control equipment fails to operate within specifications set forth in the standard operating procedures, the drying and packaging room shall immediately be closed-in as an airborne radiation area and heating operations shall be switched to cooldown, or packaging operations shall be temporarily suspended. Packaging operations shall not be resumed until the vacuum system is operational to draw air into the system.

B. The licensee shall, during all periods of yellowcake drying operations, assure that the negative pressure specified in the standard operating procedures for the dryer heating chamber is maintained. This shall be accomplished by either (1) performing and documenting checks of air pressure differential approximately every four hours during operation, or (2) installing instrumentation which will signal an audible alarm if the water flow or air pressure differential falls below the recommended levels. If an audible alarm is used, its operation shall be checked and documented at the beginning and end of each drying cycle when the differential pressure is lowered.

10.9 [DELETED by Amendment No. 12]

10.10 In-plant radiological monitoring for airborne uranium and radon daughters shall be conducted at the locations shown in Figure 5.7-1 in the approved license application.

10.11 [DELETED by Amendment No. 12]

10.12 [DELETED by Amendment No. 12]

10.13 [DELETED by Amendment No. 12]

10.14 The licensee shall maintain an area within the restricted area boundary for temporary storage of contaminated materials. All contaminated wastes and evaporation pond residues shall be disposed at a radioactive waste disposal site licensed to accept 11e.(2) byproduct material.

10.15 The licensee shall construct evaporation ponds 2 and 5 in accordance with the engineering design report dated April 27, 1988, as modified by the submittals dated May 11, and July 16, 1992. In addition, the ponds shall be constructed as follows:

A. Fill material shall be classified as a silty sand material in accordance with the Unified Soil Classification System.

B. Quality control of the fill shall be performed in accordance with the guidance provided for radon barrier materials in the NRC "Staff Technical Position on Testing and Inspection Plans during Construction of DOE's Remedial Action at Inactive Uranium Mill Tailing Sites" (January 1989).

C. As-built drawings of the constructed ponds shall be submitted to NRC within 3 months of the

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completion of construction of each pond.

10.16 Production zone monitor wells drilled after April, 1999, shall be spaced no greater than 300 feet from a well field unit and no greater than 400 feet between the wells.

SECTION 11: Monitoring, Recording, and Bookkeeping Requirements

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

11.2 All designated perimeter and upper aquifer monitor wells shall be sampled and tested no more than 14 days apart, except in the event of the situations identified in the licensee's submittal dated March 19, 1998. If a designated monitor well is not sampled within 14 days of a previous sampling event, the reasons for the postponement of sampling shall be documented. Sampling shall not be postponed for greater than five days.

If two UCLs are exceeded in a well or if a single UCL is exceeded by 20 percent, the licensee shall take a confirming water sample within 48 hours after the results of the first analyses are received and analyze the sample for the indicator parameters. If the second sample does not indicate an exceedance, a third sample shall be taken and analyzed in a similar manner with 48 hours after the second set of samples was acquired. If neither the second nor the third sample indicate an exceedance, the first sample shall be considered in error.

If either the second or third sample confirms that a UCL(s) has been exceeded, the well in question shall be placed on excursion status. Upon confirmation of an excursion, the licensee shall notify NRC in accordance with License Condition 12.2, implement corrective action, and increase the sampling frequency for the indicator parameters at the excursion well to once every seven (7) days. Corrective actions for confirmed excursions may be, but are not limited to, those described in Section 5.7.8.1 of the approved license application. An excursion is considered concluded when the concentrations of the indicator parameters are below the concentration levels defining an excursion for three (3) consecutive weekly samples.

[Applicable Amendment: 1, 12]

11.3 The licensee shall establish and conduct an effluent and environmental monitoring program in accordance with the program submitted by letter dated March 18, 1999.

[Applicable Amendment: 3]

11.4 The licensee shall perform and document inspections in accordance with the February 5, 1996, revision to its Evaporation Pond Onsite Inspection Program.

Any time 6 inches or more of fluid is detected in a commercial pond standpipe, it shall be analyzed for specific conductance. If the water quality is degraded beyond the action level, the water shall be further sampled and analyzed for chloride, alkalinity, sodium, and sulfate. Any time 6 inches or more of fluid is detected an R&D pond standpipe, it shall be analyzed for specific conductance, chloride, alkalinity, sodium, and sulfate.

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Upon verification of a liner leak, the licensee shall notify NRC in accordance with License Condition 12.2, lower the fluid level by transferring the pond's contents to an alternate cell, and undertake repairs, as needed. Water quality in the affected standpipe shall be analyzed for the five parameters listed above once every 7 days during the leak period and once every 7 days for at least 14 days following repairs.

11.5 [DELETED by Amendment No. 12]

11.6 The results of the following activities, operations, or actions shall be documented: sampling; analyses; surveys and monitoring; survey/monitoring equipment calibration results; reports on audits and inspections; all meetings and training courses required by this license; and any subsequent reviews, investigations, or corrective actions. Unless otherwise specified in the NRC regulations, all such documentation shall be maintained for a period of at least five (5) years.

11.7 [DELETED by Amendment No. 12]

11.8 Any time uranium in a worker's urine specimen exceeds 15 micrograms per liter (ug/l), the annual ALARA audit will indicating what corrective actions were considered or performed.

11.9 Any time a uranium action level of 35 ug/l for two consecutive urine specimens or 130 ug/l for any one specimen is reached or exceeded, the licensee shall provide documentation within 30 days to the NRC indicating what corrective actions have been performed.

SECTION 12.0 Reporting Requirements

12.1 Effluent and environmental monitoring program results submitted in accordance with 10 CFR 40.65 shall be reported in the format shown Table 3 of Regulatory Guide 4.14, (Rev 1) entitled, "Sample Format for Reporting Monitoring Data." These reports also shall include injection rates, recovery rates, and injection manifold pressures.

12.2 Spills, Pond Leaks, Leaks, Excursions, and Incident/Event Reporting

Until license termination, the licensee shall maintain documentation on unplanned release of source or 11e.(2) by product materials (including extraction solutions) and process chemicals. Documented information shall include, but not be limited to: date, volume, total activity of each radionuclide released, radiological survey results, soil sample results (if taken), corrective actions, results of post remediation surveys (if taken), and a map showing the spill location and the impacted area.

The licensee shall have procedures which will evaluate the consequences of the spill or incident/event against 10 CFR 20, Subpart "M," and 10 CFR 40.60 reporting criteria. If the criteria are met, then report to the NRC Operations Center as required.

If the licensee is required to report any spills, pond leaks, excursions of source, 11e.(2) by product material, and process chemicals that may have an impact on the environment, or any other incidents/events to State or Federal Agencies, a notification shall be made to the NRC Headquarters Project Manager (PM) by telephone or electronic mail (e-mail) within 48 hours of the event. This

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notification shall be followed, within thirty (30) days of the notification, by submittal of a written report to NRC Headquarters PM as per License Condition 9.2, detailing the conditions leading to the spill, pond leak, excursion or incident/event, corrective actions taken, and results achieved.

[Applicable Amendment 12]

12.3 [DELETED by Amendment No. 12]

12.4 Until license termination, the licensee shall maintain documentation on all spills of source or 11e.(2) byproduct materials, and all spills of process chemicals. Documented information shall include: date, spill volume, total activity of each radionuclide released, radiological survey results, corrective actions, results of remediation surveys, and a map showing the spill location and impacted area.

The licensee shall notify NRC by telephone within 48 hours of any spill of source or 11e.(2) byproduct materials and all spills of process chemicals, that may have a radiological impact on the environment. This notification shall be followed, within seven (7) days, by submittal of a written report detailing the conditions leading to the spill, corrective actions taken, and results achieved. This requirement is in addition to the reporting requirements of 10 CFR Part 20 and 10 CFR 40.60.

12.5 The licensee shall submit a detailed decommissioning plan to NRC for review and approval at least 12 months prior to the planned final shutdown of well field extraction operations.

12.6 [Deleted by Amendment 12}

12.7 [Deleted by Amendment 12]

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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Daniel M. Gillen, Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards