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40-4492/RFB/87/03/06/0

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MAR 12 1987

URFO:NMS
 Docket No. 40-4492
 SUA-667, Amendment No. 27
 04004492410E

RECEIVED

American Nuclear Corporation
 Gas Hills Project
 314 West Midwest Avenue
 Casper, Wyoming 82601

'87 MAR 23 10:50

U.S. NUCLEAR
 (U. FEE MGMT. BRANCH)

Gentlemen:

The staff has completed their review of your submittals dated September 18, October 23, December 16, and December 29, 1986, and January 6, and January 27, 1987. We have determined that your request for authority to dispose the Riverton UMTRCA Title 1 wastes in your Gas Hills site Tailings Pond No. 1 is acceptable. However, we feel that modification of your proposal is warranted as evidenced by the following condition.

Therefore, pursuant to Title 10, Code of Federal Regulations, Part 40, and in accordance with the above cited submittals, Source Material License SUA-667 is hereby amended by revising License Condition No. 14 in its entirety to read as follows:

14. A. If Riverton wastes are not accepted for disposal in ANC's Tailings Pond No. 1 as authorized by Subsection B of this condition, the licensee shall perform reclamation of Tailings Ponds Nos. 1 and 2 at the Gas Hills site in accordance with the following documents:
1. Interim Stabilization, Operational, Decommissioning and Reclamation of the Federal-American Partners' Mill and Tailings Facilities, Gas Hills, Wyoming, Federal-American Partners, May 18, 1982.
 2. The Development of Hydraulic Designs to Reroute Willow Springs Draw Near Federal-American Partners Uranium Mining

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Facilities at West Gas Hills, Wyoming, Dames and Moore,
July 30, 1982.

3. Figure 1 of Appendix 3 of Exhibit II and Figure 5 of Exhibit II titled "Report on Supplementary Hydrologic Studies for Campsite Draw, Willow Springs Draw, and A New Diversion Ditch at West Gas Hills Uranium Mining Facilities of American Nuclear Corporation, Riverton, Wyoming" submitted December 3, 1984.

Further, the reclamation plan specified in the above documents shall be modified in accordance with the licensee's submittals dated May 2, 1984, and December 16, 1986 with the exception that grouted riprap need not be installed.

Interim stabilization of Tailings Pond No. 1 shall be completed by May 1, 1987. Reclamation of Tailings Pond No. 1 shall begin by July 1, 1987.

- B. The licensee is authorized to accept and dispose of Riverton wastes in Tailings Pond No. 1, provided the licensee shall perform the reclamation of Tailings Pond Nos. 1 and 2 in accordance with the documents referenced in Part A of this condition as modified by submittals dated September 18, October 23 and December 29, 1986, and January 6 and January 27, 1987. In addition and notwithstanding any statements to the contrary, the licensee shall, by May 1, 1987, submit the following for NRC review and approval prior to accepting any Riverton wastes:
 1. A re-analysis of the radon barrier thickness requirement based on an adequate characterization of the emanating fraction and radium concentrations for the Riverton wastes.
 2. The construction specifications for the proposed three-acre evaporation pond and the synthetic liner.
 3. A revision to the proposed plan to assure isolation of the relocated wastes. Specifically, the upper surface of the tailings shall be located a minimum of 20 feet from any slope steeper than 1.5 percent. Further, Riverton wastes placed under any outslope of the reclamation cover steeper

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than 1.5 percent shall not be placed at a slope flatter than 5H:1V.

4. A revision of the diversion channel design to assure the stability of the channel and the reclaimed wastes by designing the outslopes of the diversion channel to be equivalent to or flatter than those referenced in A.3. above. The redesign should include a stipulation that the channel bottom be sloped at a minimum of 1 percent away from the tailings.
 5. Provide a revised detailed estimate of costs required to reclaim tailings pond No. 1. The estimate shall specifically include costs of placement and compaction of the radon barrier soils, the quality assurance testing and settlement monitoring, and the construction of evaporative capacity for containment of water from the ground-water cleanup program. On the basis of this cost estimate, the licensee shall provide evidence of additional financial arrangements to ensure reclamation of tailings pond No. 1.
- C. Irrespective of the licensee's disposal of Riverton wastes in Tailings Pond No. 1, the licensee shall by July 1, 1987, submit for NRC review and approval, a detailed program for monitoring settlement of the tailings pile. The proposed program shall specify the number and locations of settlement instrumentation as well as frequencies for reading instrumentation before, during, and following placement of the Riverton wastes and radon barrier soils. Prior to placement of radon barrier soils, the licensee shall submit for NRC review and approval, a report including all settlement monitoring data and a consolidation curve that demonstrates that 90 percent consolidation of the tailings pile has been achieved. Final recontouring and revegetation shall not be performed until the NRC has provided written approval.
- D. Irrespective of the licensee's disposal of Riverton wastes in Tailings Pond No. 1, the licensee shall comply with the following during construction activities associated with reclamation:
1. Relocated Riverton wastes or overburden materials used as fill shall be placed in loose lifts not exceeding 18 inches and compacted by at least one pass of

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construction equipment, with the exception that the thickness of the initial lift may be up to a maximum of four feet thick. The final radon barrier cover, defined as the uppermost six feet of soils on the pile top, shall be placed in loose lifts not exceeding 12 inches and compacted to at least 95 percent of the maximum density as determined by ASTM D-698 and at a moisture content between minus one and plus two percent of optimum.

2. A field and laboratory quality control program shall be implemented to assure that the required density and moisture specifications for the radon barrier cover are achieved. Frequencies for testing shall be in accordance with Section 3.2.3 of the document entitled, "Staff Technical Position on Testing and Inspection Plans During Construction of DOE's Remedial Action at Inactive Uranium Mill Tailings Sites" dated March 1987, and included as Attachment No. 5 to this license.
 3. A detailed report of reclamation construction activities shall be submitted for NRC review within three (3) months of completion of the construction of the radon cover. The report shall include the results of all quality control testing as well as "as-built" drawings.
- E. A proposed plan for managing nine million gallons per year of water from the pumpback system shall be submitted in the form of an amendment request by July 1, 1987 if Riverton wastes are placed in Tailings Pond No. 1. If Riverton wastes are not placed in Tailings Pond No. 1, a proposed plan for managing four million gallons per year of water from the pumpback system shall be submitted in the form of an amendment request by July 1, 1987.

The effect of this amendment is to approve your request for authority to dispose the Riverton waste materials in Tailings Pond No. 1. We have determined that the disposal of wastes from the Riverton site is acceptable on the basis that these wastes, although not meeting the actual definition of uranium byproducts as provided in Section 11 (e)(2) of the Atomic Energy Act of 1954, as amended, are in fact of similar origin (i.e., resulting from primary processing of ores for their uranium content) and are of similar radiological characteristics as found in uranium byproducts as regulated under 10 CFR Part 40. Further, it has

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been demonstrated to our satisfaction that the wastes will be disposed of in accordance with requirements for wastes regulated under 10 CFR Part 40 and these requirements are at least as stringent as disposal requirements for wastes covered under Title I of the Uranium Mill Tailings Radiation Control Act, 1978. However, the licensee is advised that in reaching the licensing action provided herein, the NRC has not passed overall judgement on the acceptability of this method of disposal for Title I wastes nor does this action constitute the NRC's concurrence on the remedial action plan for the Riverton site.

All other conditions of this license shall remain the same. The license is being reissued in its entirety to incorporate the revisions specified above.

The issuance of this amendment was discussed with Messrs. Niles Andrus of ANC, and Harry Pettengill and myself of the NRC on March 9, 1987 and ANC has verbally concurred on the issuance of this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION

151
R. Dale Smith, Director
Uranium Recovery Field Office
Region IV

Enclosure: Source Material License SUA-667

Case Closed: 04004492410E

OFC : URFO *RFB* : URFO *7.2d.* : URFO *RFB* : URFO *HP* : URFO *IS* :
 NAME : RBrich/lv : MShopenn : PGarcia : HPettengill : RDSmith :
 DATE : 87/03/09 : 3/9 : 3/12/87 : 3/12/87 : 3/12/87 :

Telecon D. Gillen N. M. S. RFB 3/12/87
Telecon Bill Brown RFB 3/12/87

ENCLOSURE "A"

REQUIRED WORDING FOR CORPORATE GUARANTEE

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of the State of (insert name of State), herein referred to as guarantor, to the United States Nuclear Regulatory Commission, (NRC) obligee, on behalf of our subsidiary (owner or operator) of (business address).

Recitals

1. Guarantor meets or exceeds the following financial test criteria, and agrees to comply with all reporting requirements for sureties as specified in CFR Part 40, Appendix A:

Guarantee shall meet one of the following two financial tests:

(a) (i) The guarantor's most recently issued senior credit obligations are "85B" or higher by Standard and Poor's Corporation, or "Baa" or higher by Moody's Investors Service, Inc.; and

(ii) The guarantor's tangible net worth is at least \$10 million and is equal to or greater than six times the sum of the current cost estimates for decommissioning, decontamination, reclamation, and long-term surveillance required by the License; and

(iii) The guarantor's assets located in the United States amount to at least 50 percent of its total assets or at least six times the amount of the current cost estimates for decommissioning, decontamination, reclamation, and long-term surveillance required by the License; OR

(b) (i) Guarantor's tangible net worth and net working capital are each equal to or greater than six times the sum of the current cost estimates for decommissioning, decontamination, reclamation, and long-term surveillance required by the License; and

(ii) Guarantor's assets located in the United States amount to at least 90 percent of its total assets or at least six times the amount of the current cost estimates for decommissioning, decontamination, reclamation, and long-term surveillance required by the License; and

(iii) Guarantor meets two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(iv) Guarantor's tangible net worth is at least \$10 million dollars.

2. (Licensee) owns or operates the following mill(s) covered by this guarantee: (List name, license number and address for each facility).
3. "Reclamation Plan" as used below refers to the plans maintained as required and required by 10 CFR Part 40 Appendix A, for the decontamination, decommissioning, and reclamation of facilities as identified above.
4. For value received from (licensee), guarantor guarantees to NRC that in the event that (licensee) fails to perform the required decontamination, decommissioning, and reclamation of the above facility in accordance with the Reclamation Plan required by License No. SUA- , the guarantor shall do so and shall also cover eventual payment of the charge for long-term surveillance required by the Criteria of 10 CFR Part 40, Appendix A.
5. Guarantor agrees that if, at any time during the one year period when this guarantee is in effect, that the guarantor fails to meet the financial test criteria, guarantor shall within 90 days, by certified mail, send notice to the NRC and to (licensee) that he intends to provide alternate financial assurance as specified in Criteria 9 of 10 CFR Part 40, Appendix A, as applicable, in the name of (licensee). Within 120 days after the end of such action, the guarantor shall establish such financial assurance unless (licensee) has done so.
6. The guarantor agrees to notify the NRC by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.
7. Guarantor agrees that within 30 days after being notified by NRC of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of decontamination, decommissioning, and reclamation care, he shall establish alternate financial assurance as specified in 10 CFR Part 40, Appendix A, as applicable, in the name of the (licensee) unless (licensee) has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the reclamation plan, amendment or modification of the license, the extension or reduction of the time of performance of reclamation, decontamination, or decommissioning, or any other modification or alteration of an obligation of the licensee pursuant to 10 CFR Part 40, Appendix A.
9. Guarantor agrees to remain bound under this guarantee for so long as [licensee] must comply with the applicable financial assurance requirements of 10 CFR Part 40, Appendix A, for the above-listed facilities, except that the guarantor may cancel this guarantee by sending notice by certified mail to the NRC and to [licensee], such cancellation to become effective no earlier than 120 days after receipt of such notice by both NRC and [licensee], as evidenced by the return receipts.
10. Guarantor agrees that if [licensee] fails to provide alternate financial assurance as specified in Appendix A of 10 CFR Part 40, as applicable, and also to obtain written approval of such assurance from the NRC within 90 days after a notice of cancellation by the guarantor is received by the NRC from guarantor, guarantor shall provide such alternate financial assurance in the name of [licensee].
11. If the guarantor files quarterly Financial Reports with the SEC, then he shall promptly submit them to the Commission during the year in which this guarantee is in effect.
12. Guarantor expressly waives notice of acceptance of this guarantee by the EPA or by [licensee]. Guarantor also expressly waives notice of amendments or modifications of the reclamation plan and of amendments or modifications of the license.

I hereby certify that the wording of the guarantee is true and correct to the best of my knowledge.

Effective Date: _____

[Name of Guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

ENCLOSURE "B"

REQUIRED WORDING FOR LETTER FROM CHIEF FINANCIAL OFFICER

[Address to U.S. Nuclear Regulatory Commission]

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, for the decommissioning, decontamination, and reclamation estimates, as well as the long-term surveillance in compliance with 10 CFR Part 40, Appendix A.

[Fill out the following paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its license number, name, address, and current reclamation cost and long-term surveillance cost estimates.]

1. This firm is the owner or operator of the following facilities for which financial assurance for decommissioning, decontamination, reclamation, and long-term surveillance is demonstrated through the financial test submitted for compliance under 10 CFR Part 40, Appendix A. The current decommissioning, decontamination, reclamation, and long-term surveillance cost estimates covered by the test are shown for each facility:

2. This firm guarantees, through the corporate guarantee submitted for compliance under 10 CFR Part 40, Appendix A, the decontamination, decommissioning, reclamation, and long-term surveillance of the following facilities owned or operated by subsidiaries of this firm. The current cost estimates for the reclamation, decontamination, decommissioning, and long-term surveillance so guaranteed are shown for each facility:

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements and footnotes for the latest completed fiscal year, ended [date].

Fill in either Criteria I or Criteria II.

CRITERIA I

REQUIRED WORDING FOR LETTER FROM CHIEF FINANCIAL OFFICER
(Note: For all definitions, please refer to 40 CFR 264.151(f))

- 1a. Sum of current decommissioning, decontamination, reclamation, and long-term surveillance cost estimates for facility licensed by SUA- license
[total of all cost estimates shown in the two paragraphs above].
\$ _____
- *2. Total liabilities [if any portion of the reclamation or long-term surveillance costs are included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4].
\$ _____
- *3. Tangible net worth \$ _____
- *4. Net worth \$ _____
- *5. Current assets \$ _____
- *6. Current liabilities \$ _____
- *7. Net working capital [line 5 minus line 6] \$ _____
- *8. The sum of net income plus depreciation, depletion, and amortization. \$ _____
- *9. Total assets in U.S. (required only if less than 90 percent of firm's assets are located in the U.S.). \$ _____

	<u>Yes</u>	<u>No</u>
10. Is line 3 at least \$10 million?	_____	_____
11. Is line 3 at least 6 times line 1?	_____	_____
12. Is line 7 at least 6 times line 1?	_____	_____
13. Are at least 90 percent of firm's assets located in the U. S.? If not, complete line 14.	_____	_____
14. Is line 9 at least 6 times line 1?	_____	_____
15. Is line 2 divided by line 4 less than 2.0?	_____	_____
16. Is line 3 divided by line 2 greater than 0.1?	_____	_____
17. Is line 5 divided by line 1 greater than 1.5?	_____	_____

* Denotes figures derived from financial statements.

CRITERIA II

- Sum of current decontamination, decommissioning, reclamation, and long term surveillance cost estimates.
[total of all cost estimates shown in the two paragraphs above]. \$ _____
- Current bond rating of most recent insurance of this firm and name of rating service. \$ _____
- Date of insurance of bond. _____
- Date of maturity of bond. _____
- *5. Tangible net worth [if any portions of the reclamation, decontamination, decommissioning, and long-term care surveillance estimates are included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line]. \$ _____

*6. Total assets in U.S. (required only if less than 90 percent of firm's assets are located in the U.S.). \$ _____

	<u>Yes</u>	<u>No</u>
7. Is line 5 at least \$10 million?	_____	_____
8. Is line 5 at least 6 times line 1?	_____	_____
*9. Are at least 90 percent of firm's assets located in the U.S.? If not, complete line 10.	_____	_____
10. Is line 6 at least 6 times line 1?	_____	_____

I hereby certify that the wording of this letter is true and correct to the best of my knowledge.

[Signature]

[Name]

[Title]

[Date]

ENCLOSURE "C"

EXAMPLE OF AUDITOR'S SPECIAL REPORT
CONFIRMATION OF CHIEF FINANCIAL OFFICER'S LETTER

We have examined the financial statements of [company name] for the year ended [], and have issued our report thereon dated [date]. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The [Company] has prepared documents to demonstrate its financial responsibility under the NRC's financial assurance regulations, in compliance with Appendix A, of 10 CFR Part 40. This letter is furnished to assist the Company in complying with these regulations and should not be used for other purposes.

The attached schedule reconciles the specified information furnished in the Chief Financial Officer's Letter in response to the regulations with the Company's financial statements. In connection therewith, we have:

1. Agreed the amounts in the column "per financial statements" with amounts contained in the Company's financial statements for the year ended []
2. Agreed the amounts in the column "per Chief Financial Officer's Letter" to the Letter prepared in response to the NRC's request.
3. Agreed the amounts in the column "reconciling items" to analyses prepared by the Company setting forth the indicated items.
4. Recomputed the totals and percentages.

Because the above procedures do not constitute an examination made in accordance with generally accepted auditing standards, we do not express an opinion on any amounts or items referred to above. In connection with the procedures referred to above, no matters came to our attention that cause us to believe the Schedule should be adjusted.

ENCLOSURE "D"

XYZ COMPANY
YEAR ENDED DECEMBER 31, 19

SCHEDULE RECONCILING AMOUNTS CONTAINED IN THE
CHIEF FINANCIAL OFFICER'S LETTER FURNISHED IN
RESPONSE TO 10 CFR PART 40, APPENDIX A, TO
AMOUNTS CONTAINED IN THE FINANCIAL STATEMENTS

<u>Line Number in CFO's Letter</u>		<u>Per Financial Statements</u>	<u>Recon- ciling Items</u>	<u>Per CFO's Letter</u>
2	Total current liabilities	X		
	Long-term debt	X		
	Deferred income taxes	X		
		XX		
	Accrued post-closure costs included in current liabilities		X	
	Total liabilities (less accrued post-closure costs)			X
3	Net Worth	XX		
	Less: Cost in excess of value of tangible assets acquired	X		
		XX		
	Accrued post-closure costs included in current liabilities		X	
	Tangible net worth (plus accrued post-closure costs)			XX
	[balance of schedule not illustrated]			
	[This illustrates the form of schedule which is contemplated. Details and reconciling items will differ in a specific situation.]			

Attachment No. 4

SAMPLE FORMAT
FOR
REPORTING DETECTION
MONITORING DATA

NRC FORM 404
(7-80)
10 CFR 40.152

U.S. NUCLEAR REGULATORY COMMISSION
Approved by OMB
3180-0020
Rev. 10/20/88

DETECTION MONITORING DATA REPORT

BACKGROUND WELL(S)

POINT OF COMPLIANCE WELL(S)

DATE		INDICATOR SPECIES			DATE		INDICATOR SPECIES		
MONTH	YEAR	As (mg/l)	Se (mg/l)	pH (units)	MONTH	YEAR	As (mg/l)	Se (mg/l)	pH (units)

DESCRIPTION (SAMPLE)	BACKGROUND WELL(S)			POINT OF COMPLIANCE WELL(S)		
	INDICATOR SPECIES			INDICATOR SPECIES		
	As (mg/l)	Se (mg/l)	pH (units)	As (mg/l)	Se (mg/l)	pH (units)
POPULATION						
MEAN						
STANDARD DEVIATION						
DISTRIBUTION						
NORMAL						
POISSON						
OTHER (Specify)						

STATISTICAL SIGNIFICANCE TEST

REFERENCE

SAMPLE STATISTICAL CALCULATION

RESULTS OF STATISTICAL EVALUATION