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40-4492

AMERICAN NUCLEAR CORPORATION

JOHN C. FERGUSON, PRESIDENT
TELEPHONE (307) 265-7912

November 4, 1987

RETURN ORIGINAL TO PDR HQ

314 WEST MIDWEST AVE
PO BOX 2713
CASPER, WYOMING 82602

Mr. R. Dale Smith
U.S. Nuclear Regulatory Commission
Region IV
Uranium Recovery Field Office
P.O. Box 25325
Denver, CO 80225



Re: Source Material License
SUA-667
NRC Docket 40-4492

Dear Mr. Smith:

The enclosed reply to Mr. Roger Shaffer of the Wyoming Department of Environmental Quality, Land Quality Division's questions concerning our bond evaluation corrects an error in the map that was sent to your office with my letter dated September 15, 1987. Also, as discussed by phone with Messrs. Pettengill, Hawkins, and Rose this date, the map shows a correction made to the final surface contours as a result of the resurvey of the surface of Tailings Pond No. 1. Also enclosed is a copy of the bid submitted by Demolition Recyclers Contractors, Inc. of Casper to demolish the remainder of the mill.

American's check in the amount of \$150 is attached for your staff's consideration of the map correction.

Sincerely,

Niles J. Andrus

Niles J. Andrus
Vice President-Operations

NJA/mk

Encl. - 5 copies

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DESIGNATED ORIGINAL

Certified By Mary C. Hood

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And
11/23/87
11/24/87
Messer 88-0117



DEMOLITION RECYCLERS CONTRACTORS, INC

P.O. Box 3675
Casper, Wyoming 82602
Telephone
(307) 234-4134

October 22, 1987

American Nuclear Corporation
314 Midwest Avenue
Casper, Wyoming 82602

Gentlemen;

We are pleased to submit the following quotation for your consideration:

Demolition of main structure and surrounding buildings down to concrete. All upright concrete to be demolished down to slab. Remove remaining buildings, tanks, bins & other equipment. Placing demolished material at its lowest point in preparation for back-fill covering.

Price includes Performance Bond.

\$227,000.00

Respectfully Submitted,

Gus Anderson, President

GA/11

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November 4, 1987

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P.O. BOX 2713
CASPER, WYOMING 82602

Mr. Roger Shaffer
Administrator
Land Quality Division
Wyoming Department of Environmental Quality
Herschler Building
122 West 25th Street
Cheyenne, WY 82002

RETURN ORIGINAL TO PDR, HQ.

Re: Mine Permit No. 352
Bond Evaluation

Dear Roger:

I am writing in regard to your October 29, 1987 letter concerning the questions which have been raised following DEQ's review of American's September 23, 1987 request for a bond reduction for the above referenced permit. In that regard, American responds as follows:

Question 1: The final contour map included in your request does not conform to the approved plan. Specifically, the contours shown in the Pond 1 area show a flat surface as opposed to the sloping surface which was approved. Such a flat surface would be conducive to significant ponding and infiltration of precipitation into the tailings and is therefore unacceptable. The bond must cover the approved plan.

Response to Question 1: When the final contour map was prepared for the 1984 bond evaluation, there was still a considerable pond of water on Pond No. 1 and the exact surface elevation of the slimes was not known. Because of this, final surface contours and the cover material volumes to assure that the EPA radiation limits were achieved were estimated. ANC had the existing surface surveyed last summer and the contours shown on the attached map (Attachment II) have been corrected to show a cover that is at least seven (7) feet thick over the slimes at the north end of the tailings area and considerably thicker at the south end. The actual shape or slope of the reclaimed surface is unchanged from the 1984 approved plan. Unfortunately, the wrong map was sent with the September, 1987 submission. The correct map is enclosed.

with 11/4/87
88-0117

Question 2: The information presented does not include any acreage figures on which to base volume calculations or revegetation costs. It is requested that the map be revised to show acreages of all of the separate areas which are identified. All affected areas must be clearly delineated in order to evaluate the associated reclamation costs.

Response to Question 2: The map has been revised to include acreage figures for the separate cost areas. (See Attachment II)

Question 3: ANC has not developed a plan to insure that the upper four feet of cover placed on the tailings and millsite will provide a suitable root zone for vegetation. The data which has been presented by ANC demonstrates that the material in the proposed borrow site is highly acidic and unsuitable for revegetation.

Resolution of this problem will require substantial expenditures for sampling and testing of cover materials, and it is certain that alternative borrow sites will be required to obtain the needed quantities of suitable cover. No estimates have been included for this.

Response to Question 3: The data which was presented by ANC in letters to Mr. Mark Moxley, dated November 25, 1985 and December 4, 1985 demonstrated that about one-third of the material sampled was acidic and unsuitable for vegetation. As explained, this material was probably from the ore zone because the top layer of spoil was undoubtedly the waste from the ore zone since it was the last material removed in uncovering the ore for mining. In addition, the surface of the spoil pile was used for stockpiling ore for several years which further contaminated the surface with pyritic material. Samples # 8 and #9, taken on the surface, are the only samples obtained where the original surface layer had been removed for covering Pond No. 2. These are entirely suitable for vegetation root zone.

ANC's plan, as explained in the above referenced letters, is to clear the unsuitable surface layer and place it in the first two (2) to three (3) feet of cover, then carefully monitor the material used for the top four (4) feet of cover as it is being picked up. Sampling as necessary will be done to insure that the upper four feet of cover placed on the tailings and millsite will provide a suitable root zone for vegetation. We do not think that substantial expenditures for sampling and testing of cover materials is necessary or that alternate borrow sites will be required to obtain the needed quantities of suitable cover. The \$186,000 for management and quality assurance

includes a sufficient amount to monitor this part of the operation.

Question 4: There have been major reductions in earthwork volumes and costs for many of the operations without any explanation or justification provided.

Response to Question 4: There have not been any major reductions in earthwork volumes. A more detailed explanation of volume calculations is presented in ANC's letter to the NRC, dated October 23, 1987, at question and response No. 6, a copy of which was also submitted to Mr. Mark Moxley for his review. Costs for the various segments of the work were contractor's estimates, which we were required by the NRC to provide.

Question 5: There are significant concerns relative to the stability of the Willow Springs Draw diversion which have not been addressed. The native stream channel below the diversion is approximately 20 feet lower than the diversion channel while the native stream channel upstream is approximately 10 feet higher. No plans or cost estimates have been included to cover these items.

Response to Question 5: The design theory of the Willow Springs Draw diversion as stated was "to direct erosive forces towards its convex side away from the tailings pond embankment". (The Development of Hydraulic Designs to Reroute Willow Springs Draw Near Federal-American Partners Uranium Mining Facilities at West Gas Hills, Wyoming, Dames and Moore, July 30, 1982.) There were rip-rap structures designed to protect the diversion points in both the Willow Springs and Camp Site Draws but these were later found to be unnecessary. The access roads at the upper and lower ends of the Willow Springs Draw interfere with the natural erosive forces and have created the situation you refer to. These roads and erosion problems existed prior to 1973, certainly prior to the construction of the diversion, and are not the result of the diversion. Neither road belongs to American. These are not subjects which our bonding needs to address. Whatever entities use or maintain these roads will have the problem so long as the road is necessary.

Question 6: There was no line item in the bond estimate to cover the required revegetation retainer on lands which have been seeded to date (100 acres at \$300/acre).

Response to Question 6: In our view, as has been stated previously, the existing reclamation areas have good vegetation cover established which has survived several

growing seasons. The \$300 per acre was, therefore, eliminated from the bond calculation.

Question 7: Topsoil handling should be estimated as a separate line item.

Response to Question 7: All cover estimates have been revised to show topsoil as a separate line item.

Attachment I, 1987 Reclamation Cost Estimates Based on 1984 Plan, is enclosed for your review.

Response to comment on bonding package:

Thank you for sharing your concerns with me about the market value of the GNMA portion of ANC's cash bond. In order to hopefully alleviate these concerns, let me review the rationale behind the mechanism established after thorough consideration by not only your department, but also from the State Treasurer's office as well as from representatives of the banking and brokerage communities. It was, I believe, recognized by all the participants that the market value of a cash bond such as we established would fluctuate. It was further recognized that by investing monies in securities guaranteed by the Federal government, such as GNMA's or certificates of deposit up to their insured limit of \$100,000, that the State would be assured of receiving the principal amount. Fluctuations in market value of the bonds represent a variation in the yield and do not effect the value of the securities if held to maturity. It was for this reason, and others, that our September 16, 1985 agreements provide for valuing and maintaining the account balance securities based on the principal or face amount of the securities that made it up.

As to your comment about forfeiture, the securities are already owned by the State of Wyoming. The State is receiving, on a monthly basis, a portion of the principal and will have received 100% of the principal by maturity. In the case of GNMA's, a portion of the principal is paid out every month and, on average, the GNMA's such as the State is holding as part of our cash bond, will be fully paid out in six to seven years. There is no way either the State or American can guarantee that the market value of these GNMA's will not fall below their carrying value, as happened during the recent downturn. Nor can it be guaranteed that their market value will not rise above their carrying value as it did at the first of this year. As the State assured the public recently when the local press reported the State had lost some \$90 million due to the recent market drop, the State will realize the full value of its government backed securities - market fluctuations notwithstanding. When the Legislature provided for cash bonds they were aware that there would be market fluctuations which I

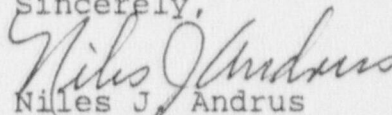
Mr. Roger Shaffer - DEQ
November 4, 1987
Page 5

feel is, in part, why they provided for funding such bonds with securities backed by U.S. government guarantees. Again, it was with knowledge of these items that the parties involved determined:

- a) the correct way to value the securities would be to value them based upon their principal amount, the amount guaranteed by the Federal government;
- b) that said amount should not fall below our bond requirements;
- c) and that the State would accept market fluctuations such as those experienced by the GNMA's or other types of relatively short term securities.

Hopefully this review has alleviated your concerns, particularly those relating to fluctuations in the market value of the bonds.

Sincerely,



Niles J. Andrus
Vice President-Operations

NJA/mk

cc: Mark Moxley - Lander - DEQ
NRC

ATTACHMENT I

1987 Reclamation Cost Estimates
Based on 1984 Plan

TAILINGS POND NO. 1

| <u>Borrow Area</u> | <u>Fill Area</u> | <u>Average Distance</u> | <u>Equipment Required</u> | <u>Units Cu Yds</u> | <u>Unit Costs Placing</u> | <u>Unit Costs Compacting</u> | <u>Total Cost</u> |
|---|------------------|-------------------------|---------------------------|---------------------|---------------------------|------------------------------|-------------------|
| I-1 | A | 100 | Dozer | 18,481 | .30 | .10 | 7,392 |
| BA | A | 1,800 | Scraper | 138,485 | .65 | .10 | 103,864 |
| BA | B | 1,200 | Scraper | 521,222 | .60 | .10 | 364,855 |
| BA | C | 400 | Dozer | 67,667 | .40 | .10 | 33,834 |
| Remove & Replace topsoil (6") | | | | 39,811 | .80 | | 31,849 |
| Reclamation costs (disc, seed, fertilize) | | | | 48 acres | 168.00 | | 8,064 |
| Radiation safety/monitoring | | | | | | | 15,000 |
| Management & quality assurance | | | | | | | 42,364 |
| Overhead | | | | | | | 15,181 |
| Contingency - 15% | | | | | | | 93,360 |
| Total | | | | | | | \$715,763 |

TAILINGS POND NO. 2

| <u>Borrow Area</u> | <u>Fill Area</u> | <u>Average Distance</u> | <u>Equipment Required</u> | <u>Units Cu Yds</u> | <u>Unit Costs Placing</u> | <u>Unit Costs Compacting</u> | <u>Total Cost</u> |
|--------------------|------------------|-------------------------|---------------------------|---------------------|---------------------------|------------------------------|-------------------|
| II-2 | A | 200 | Dozer | 7,111 | .30 | .10 | 2,844 |
| II-1 | A | 200 | Dozer | 100,000 | .30 | .10 | 40,000 |
| BA | A | 3,700 | Scraper | 341,744 | .80 | .10 | 307,570 |
| II-1 | D | 200 | Dozer | 64,700 | .30 | .10 | 25,880 |
| BA | D | 3,700 | Scraper | 200,573 | .80 | .10 | 180,516 |
| II-4 | D | 200 | Dozer | 45,556 | .30 | .10 | 18,222 |
| BA | B | 2,600 | Scraper | 104,400 | .72 | .10 | 85,608 |
| BA | C | 2,700 | Scraper | 218,100 | .72 | .10 | 178,842 |

| <u>Borrow Area</u> | <u>Fill Area</u> | <u>Average Distance</u> | <u>Equipment Required</u> | <u>Units Cu Yds</u> | <u>Unit Costs Placing</u> | <u>Unit Costs Compacting</u> | <u>Total Cost</u> |
|--|------------------|-------------------------|---------------------------|---------------------|--------------------------------|------------------------------|-------------------|
| Tailings Pond No. 2 cont. | | | | | | | |
| BA | E | 3,500 | Scraper | 19,278 | .80 | .10 | 17,350 |
| BA | G | 3,000 | Scraper | 51,444 | .75 | .10 | 43,727 |
| II-3 | F | 800 | Scraper | 238,044 | .57 | .10 | 159,489 |
| II-5 | F | 400 | Dozer | 159,037 | .30 | .10 | 63,615 |
| BA | F | 3,500 | Scraper | 284,107 | .80 | .10 | 255,696 |
| Campsite Draw | F | 800 | Scraper | 72,700 | (See Campsite Draw under Mill) | | |
| Remove & replace topsoil (6") | | | | 128,855 | .80 | | 103,084 |
| Reclamation costs (disc, seed, fertilize) 155.1 acres 168.00 | | | | | | | 26,057 |
| Radiation safety/monitoring | | | | | | | 15,000 |
| Management & quality assurance | | | | | | | 114,262 |
| Overhead | | | | | | | 40,944 |
| Contingency - 15% | | | | | | | <u>251,806</u> |
| Total | | | | | | | 1,930,512 |

MILL AND RELATED FACILITIES

| | <u>Units</u> | <u>Unit Cost</u> | <u>Total Cost</u> |
|--|--------------|----------------------|-----------------------|
| Removal of Mill & Buildings | | | 227,000 |
| Campsite Draw | 72,700 yds | .67 | 48,709 |
| Remove & replace topsoil-Campsite Draw | 7,000 cy | .80 | 5,600 |
| Reclamation costs (disc, seed, fertilize) | 8.7 acres | 168.00 | 1,462 |
| Dike backfill | 5,300 yds | 1.00 | 5,300 |
| Topsoil stockpile areas (disc, seed, fertilize) | 2.4 acres | | 400 |
| Haul roads (Ripping, topsoil, seed, fertilize) | 11.5 acres | | 10,300 |
| Fencing | 17,646 ft. | | 28,587 |
| Radiation safety & monitoring | | | 25,000 |
| Management & quality assurance | | | 26,427 |
| Overhead | | | 9,470 |
| Contingency - 15% | | | <u>58,238</u> |
| Total | | | 446,493 |

11/20/87

Docket No.: 40-4492500E

MEMORANDUM FOR: C. James Holloway, Jr., Chief
License Fee Management Branch, RM/A

SUBJECT: FEE CLASSIFICATION MEMO

Applicant: ANC License No.: 54A 667

Application Date: 87 11 04 Date Received: 87 11 06

Casework No.: 040 4492500E
88-0117

1. The above application for amendment has been reviewed by URFO in accordance with §170.31 of Part 170, and will require an amendment to the license. ✓ (check)
2. The application is not subject to fees because it was filed (check one) _____ (a) pursuant to written NRC request and the amendment is being issued for the convenience of the Commission, or _____ (b) (state other reason) _____

Check \$150.00 #001711 dtd 11/4/87

Signature [Signature]
Date 11/19/87

FOR LICENSE FEE MANAGEMENT BRANCH USE ONLY

FEE CATEGORY 2A

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