

AUC LLC

The Reno Creek ISR Project

October 3, 2012

United States Nuclear Regulatory Commission
Attn: Mr. Andrew Persinko, Deputy Director
11545 Rockville Pike, MS T8F5
Rockville, MD 20852

SUBJECT: Transmittal Letter, Reno Creek *In Situ* Leach Uranium Recovery (ISR)
Project Application for Combined Source and 11e.(2) Byproduct Materials
License

Dear Mr. Persinko:

By this letter AUC, LLC (AUC), a United States-based, wholly-owned subsidiary of AUC Holdings, submits this combined source and 11e. (2) byproduct material license application to the United States Nuclear Regulatory Commission (NRC) requesting authorization to construct and operate its proposed Reno Creek ISR project to be located in the Powder River Basin near Wright, Wyoming. AUC is submitting its application as an Electronic Submittal, as defined and described in Guidance for Electronic Submissions to the NRC, Revision 6.1, of May 27, 2011. Accordingly, as instructed in Section 2.16, page 23, of the Electronic Submittal Guidance, AUC is not sending any hard copies of the electronic documents.

The following documents, which constitute the application, are enclosed as electronic pdf submittals on two DVDs:

1. NRC Form 313 (completed);
2. A Technical Report (TR) and associated addenda, based on a detailed review of 10 CFR Part 40, plus NUREG-1569 (Standard Review Plan for *In Situ* Leach Uranium Extraction License Applications) and other applicable NRC guidance;
3. An Environmental Report (ER), based on 10 CFR Part 40 and Appendix A Criteria and formatted in accordance with NUREG-1748 (Environmental Review Guidance for Licensing Actions Associated with NMSS Programs); and
4. Additional Addenda and reports related to and referenced in the TR and the ER. Included is Addendum 1-B of the TR and Addendum 1-A of the ER, in which you will find a matrix that tracks NRC's comments after the Pre-Submission Audit and the locations where AUC's responses can be found.

The documents have been divided into logical blocks containing less than 50 MB of information. An index of the blocks is attached to this letter.

1536 Cole Blvd.
Suite 330
Lakewood CO, 80401

Ph. 303-953-7975
Fx. 303-953-7994

The TR and ER also reflect AUC's consultation with NRC Staff on a quarterly basis for 2 ½ years, and an intensive review by AUC of five (5) recent prior ISR applications, including the affiliated requests for additional information (RAI), final supplemental environmental impact statements (SEIS), and safety evaluation reports (SER). They further reflect comments provided by NRC Staff following its detailed review of AUC's pre-final draft of the TR and ER during Pre-Submission Audit conducted November 15-17, 2011 in Wright, WY.

The electronic documents and addenda are in Adobe PDF format that meet the NRC requirements for electronic submittals including optical character recognition (OCR), a resolution of 300 dpi and embedded fonts. The exception to this is a limited number of pdf files of the historical data from Rocky Mountain Energy (RME), which were prepared earlier and which cannot be upgraded to current technical standards. Preparation of the electronic files was conducted in coordination with Mr. Kenny Nguyen, IT Specialist/Project Officer with the NRC.

This submittal contains PDF files, one or more of which contains hyperlinks to other files or to the Internet. These hyperlinks are either inoperable or are not essential to the use of the filing. Any material referenced by hyperlinks to the Internet that was essential for use of this filing has been submitted as part of the filing. Any material referenced by a hyperlink to another PDF that was essential for the use of this filing has either been included by reference or submitted as part of this filing.

Finally, the TR Addendum 6-A is a stand-alone Restoration Action Plan (RAP) prepared in accordance with the Commission-approved format used by Hydro Resources, Inc. (HRI) for its proposed Crownpoint Uranium Project and supplemented in accordance with existing NRC RAIs and the stand-alone RAP submitted to the Agency by Strata Energy, Inc.

AUC has prepared the contents of this license application to provide NRC Staff with sufficient detail on technical and environmental issues to satisfy its acceptance review requirements so that the detailed technical and environmental review can be conducted with minimal RAIs. The application contains all of the quarterly baseline data that are required for submittal.

Proposed Reno Creek Project Characteristics

The proposed Reno Creek project exhibits several important site specific characteristics that render the project highly amenable to development of an ISR uranium recovery facility in a manner that dramatically minimizes or prevents the proposed project's potential impacts to the environment.

1. A Pilot Plant operated by Rocky Mountain Energy (RME) in the late 1970s and early 1980s, operating under NRC License SUA-1338, demonstrated both technical feasibility of uranium recovery and success in ground water restoration

and decommissioning and decontamination (D&D), as approved by both NRC and the Wyoming Department of Environmental Quality;

2. The Production Zone (uranium ore-bearing) sandstone is geologically confined by continuous overlying and underlying aquitards across the entire site. The Production Zone aquifer is continuous sandstone with up to five mineralized roll fronts, which is proposed to be licensed as a single unit;
3. A detailed Hydrologic Integrity Test conducted by RME demonstrated that there is no hydrologic communication between the Overlying Aquifer and the Production Zone, even from historical drill holes, which were demonstrated to self-seal;
4. AUC's pump testing and geochemical evaluation of water quality have indicated that the underlying and surficial water bearing units do not meet NRC's (or WDEQ's) definition of an aquifer. Consequently, AUC proposes to not monitor those highly discontinuous units during operations;
5. The site is well outside of the Sage Grouse core area, and exhibits no evidence of any Threatened or Endangered species of animals or plants;
6. No federally owned lands are within or adjacent to the proposed project. Except for one Section of State land, the entire proposed project is on privately owned property;
7. Lying atop a drainage divide, the proposed project has no naturally occurring surface water and only occasional perched, near surface ground water that is not classified as having aquifer characteristics; and
8. Rigorous testing by the BLM has revealed no effect on ground water or surface water from the operation of nearby Coal Bed Methane production.

While AUC's application contains information in accordance with appropriate regulations, guidance, reports and data typical of information supplied by industry for ISR projects, AUC; however, provides additional information for the NRC Staff's review.

Restoration Action Plan

Traditionally, ISR license applicants have provided information on financial assurance related to site operations, groundwater restoration, surface reclamation and D&D of surface facilities in a variety of locations within the application. AUC has elected to provide such information in a separate RAP document, found in Addendum 6-A. Provision of a separate RAP allows NRC Staff responsible for financial assurance review to find all necessary information in a single location.

Pursuant to the Commission's response in the HRI court decision and the recently approved licenses for Uranium One, Lost Creek, and Uranerz, the RAP provides detailed plans for restoration and site D&D, including financial assurance cost estimates for the first year of construction and operation. The RAP also provides a methodology for annually updating financial assurance cost estimates pursuant to 10 CFR Part 40, Appendix A, Criterion 9, both to keep the estimates current and to reflect changes in

AUC's operations. AUC commits, in accordance with Criterion 9, to annually update and report required financial assurance information to NRC Staff.

It should be noted that the RAP includes a request for a site specific alternate restoration schedule pursuant to 10 CFR § 40.42, owing to the complexity and size of the proposed project.

Detailed Hydrologic Modeling

This license application incorporates a detailed hydrologic/groundwater model based on on-site data developed by AUC. The modeling procedures were discussed with NRC Staff over a one-year period, and were discussed in detail during the Pre-Submission Audit of November 15-17, 2011. The model and accompanying data are provided to the NRC Staff to enable its review of scenarios on ground water movement at the proposed project. It also allows NRC Staff to understand the procedures and techniques used and to validate the scenarios and results contained in the application.

Cultural Resources and National Historic Preservation Act Section 106 Consultations

In 2008, a review of existing, recent Class III surveys on the Proposed Project revealed 41 sites that had been determined by the Wyoming SHPO not to be eligible for the National Register of Historic Places (NRHP). An additional 37 sites were then identified in a further Class III survey conducted during 2010, and are projected not to be eligible for the National Register. The proposed project area contains no known or listed sites or areas that are recognized as traditional cultural places by any Native American tribe. The Proposed Project site is located at least eight (8) miles outside of the Pumpkin Buttes TCP area as defined by the Programmatic Agreement on the Pumpkin Buttes relating to Uranerz's Hank Project.

Subject to the Wyoming SHPO's concurrence with the projected eligibility of the discovered sites and artifacts, the Proposed Project will have no adverse impact on historic and cultural resources in the state of Wyoming, and accordingly no further pre-licensing or pre-construction studies or investigations are warranted or required by the Atomic Energy Act of 1954, as amended, (AEA) or NRC's regulations thereunder or the NHPA and relevant 36 CFR Part 800 regulations or policies of the Advisory Council on Historic Preservation (ACHP).

Notwithstanding, AUC commits to implement two (2) programs to enhance its support of cultural and historical resources discovered later at the proposed project site; if any.

1. AUC proposes that it be an active participant in the NHPA Section 106 consultation process.
 - a. AUC requests that NRC Staff commence any formal Section 106 consultation process with both Native American tribes and the Wyoming State Historic Preservation Officer (SHPO) staff upon NRC's receipt of this Application for a Materials License.

- b. AUC intends to communicate with the appropriate Tribes and the Wyoming SHPO staff as soon as possible after NRC Staff initiates any formal Section 106 consultation.
 - c. AUC proposes to participate fully with NRC Staff and others to conduct field trips to the site, phone conferences, webinars, and other activities as necessary during any formal NRC Section 106 consultation.
2. AUC will develop and implement an Unanticipated Discovery Program, designed to detect and identify any potentially eligible site during any construction and/or operations at the proposed project site. The Unanticipated Discovery Program will be submitted to the Wyoming SHPO and NRC Staff for review at least 30 days prior to its implementation at the project.

10 CFR § 2.390(a) Affidavits for Withholding of Information from Public Disclosure

AUC's license application includes an affidavit prepared pursuant to 10 CFR § 2.390(a) regarding withholding of confidential information from public disclosure. In this affidavit, AUC is seeking to protect the following information from public disclosure: historical and cultural resource information under 10 CFR § 2.390(a)(3) as information to be protected by statute. In addition to the affidavit, AUC has complied with the 10 CFR § 2.390(a) requirement that all pages of documents sought to be withheld from public disclosure are submitted with the required "*Confidential Information Submitted under 10 CFR 2.390*" in the top right corner of each page. In the event that the NRC Staff deems any of the information identified for withholding from public disclosure as not meeting Part 2.390's requirements, AUC respectfully requests immediate notification of such a decision prior to any disclosure of such information.

AUC appreciates the opportunity to submit its license application and looks forward to working with NRC Staff in the future to assure that AUC's requested license as issued is adequately protective of public health and safety and environment. If you have any questions, please do not hesitate to contact me at your convenience.

Respectfully Submitted,



James H. Viellenave
President
AUC LLC

Enclosures, as noted

Document Components:	File Size	
OSM: USNRC License Application		
001 NRC Transmittal Letter.pdf	2,568	KB
Located in the "Technical Report" folder:		
002 TR_Sections 1 to 2.9.pdf	43,977	KB
003 TR_Sections 3 to Glossary.pdf	11,226	KB
Located in the "TR Addendums" folder:		
004 TR_Addendum 1-A_B.pdf	14,621	KB
005 TR_Addendum 2.5-A.pdf	933	KB
006 TR_Addendum 2.6-A_B_C.pdf	38,823	KB
007 TR_Addendum 2.7-A_B.pdf	42,814	KB
008 TR_Addendum 2.7-C.pdf	18,074	KB
009 TR_Addendum 2.7-D Appendix C.pdf	3615	KB
010 TR_Addendum 2.7-D_E.pdf	34,935	KB
011 TR_Addendum 2.9-A_B_C.pdf	9738	KB
012 TR_Addendum 4-A_B.pdf	17,688	KB
013 TR_Addendum 6-A_B.pdf	14,635	KB
014 TR_Addendum 7-A.pdf	5,542	KB
Located in the "TR Oversize Graphics" folder:		
015 TR_Section 2.6 Figure 2.6B-1.pdf	258	KB
016 TR_Section 2.6 Figure 2.6B-2.pdf	275	KB
017 TR_Section 2.6 Figure 2.6B-3.pdf	129	KB
018 TR_Section 2.9 Figure 2.9-1.pdf	7,281	KB
Located in the "Environmental Report" folder:		
019 ER_Sections 1 to 3.13.pdf	46,963	KB
020 ER_Sections 4 to Glossary.pdf	18,408	KB
Located in the "ER Addendums" folder:		
021 ER_Addendum 1-A.pdf	445	KB
022 ER_Addendums 3.3-A_B_C_D_E_F_G.pdf	31,650	KB
023 ER_Addendums 3.5-A_B_C_D_E_F_G_H_I.pdf	29,198	KB
Located in the "ER Oversize Graphics" folder:		
024 ER_Section 3.3 Soils Map.pdf	6,875	KB
025 ER_Section 3.5 Addendum 3.5-E Vegetation Map.pdf	7,633	KB
026 ER_Section 3.5 Addendum 3.5-F Wetlands Map.pdf	6,413	KB
OSM: Historic and Cultural Resources Report- 10 CFR 2.390		
027 ER_Addendum 3.8-A.pdf	45,690	KB

AUC LLC

**AFFIDAVIT TO WITHHOLD CULTURAL RESOURCE INFORMATION
FROM PUBLIC DISCLOSURE REQUEST**

The information required by 10 CFR §2.390 (b)(1)(ii) includes:

A. Document or part to be withheld.

An Intensive Cultural Resource Survey of the AUC LLC, Reno Creek Uranium Project, Campbell County, Wyoming, dated August 2011.

B. Name and official position of the person making the affidavit:

James H. Viellenave, President, AUC LLC

C. Basis for proposing the information withheld:

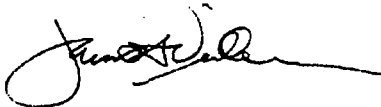
In accordance with the National Historic Preservation Act Section 304 (16 U.S.C. 470w-3(a)) information on the nature or location of archeological and historical sites shall not be made available to the public. Accordingly, disclosure is specifically exempted by statute as specified in 10 CFR §2.390(a)(3).

D. Statement of harm that would result if the information sought to be withheld is disclosed to the public:

Both federal and state agency policies hold that public disclosure of information on the nature or location of archaeological and historical sites will increase the likelihood of trespassing, vandalism and theft and will contribute to illegal traffic in antiquities.

E. Location in the document of all information sought to be withheld:

The cultural resource information sought to be withheld is located in Environmental Report Addendum 3.8-A of the attached document entitled: *USNRC Application, Combined Source and 11e.(2) Byproduct Material License, AUC LLC, Campbell County, Wyoming*

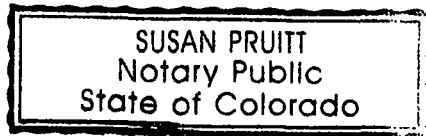


James H. Viellenave
President
AUC LLC

State of Colorado)
) ss.
County of Park)

The foregoing Affidavit was affirmed and acknowledged before me this 3rd day of October, 2012 by Mr. James H. Viellenave as President of AUC LLC, a Wyoming corporation.

Witness my hand and official seal.




Notary Public

My commission expires: 11-25-2012

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Information Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

APPLICATION FOR MATERIALS LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

OFFICE OF FEDERAL & STATE MATERIALS AND
ENVIRONMENTAL MANAGEMENT PROGRAMS
DIVISION OF MATERIALS SAFETY AND STATE AGREEMENTS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA,
KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY,
NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH
CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA,

SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PA 19406-2713

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN,
SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS,
LOUISIANA, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH
DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS,
UTAH, WASHINGTON, OR WYOMING,

SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
1600 E. LAMAR BOULEVARD
ARLINGTON, TX 76011-4511

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- ☒ A. NEW LICENSE
☐ B. AMENDMENT TO LICENSE NUMBER _____
☐ C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

AUC LLC
1536 Cole Blvd
Suite 330
Lakewood, CO 80401

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

AUC LLC
The Reno Creek Project Location
12 miles west of Wright, Wyoming

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Jim Viellenave

BUSINESS TELEPHONE NUMBER
(303) 953-7975

BUSINESS CELLULAR TELEPHONE NUMBER
(303) 884-9208

BUSINESS EMAIL ADDRESS
jviellenave@auc-llc.com

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

- a. Element and mass number; b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM

11. WASTE MANAGEMENT.

12. LICENSE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY 2.A.(2)(b) AMOUNT
ENCLOSED \$ 0.00

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

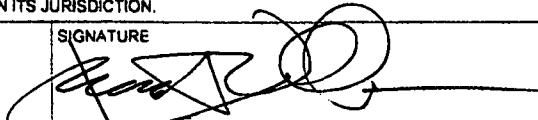
THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Jim Viellenave, President

SIGNATURE



DATE

10-3-2012

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

APPLICATION FOR MATERIALS LICENSE

NRC Form 313 (05-2012) Attachment, Response to Items 5 Through 11

Applicant: AUC LLC

Address: 1536 Cole Blvd.
Suite 330
Lakewood, CO 80401

Item 5. RADIOACTIVE MATERIAL

- a) Element and Mass Number: Uranium - U natural (U_{238} , U_{234} , U_{235})
- b) Chemical and/or Physical Form: Chemical: U_3O_8 / Physical Form: dried Yellowcake at 50% to 80% U
- c) Maximum Amount Which Will Be Possessed At Any One Time: Unlimited

Item 6. PURPOSE(S) FOR WHICH MATERIAL WILL BE USED:

Fuel to generate electricity from licensed nuclear power plants

Item 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE:

Individual:- Dr. Robert Meyer holds advanced degrees in physics, radiation protection and radiation biology. He has 36 years of experience in radiation protection and measurements, with the majority of those years focused on uranium-chain radiation protection, uranium mill remedial action and new uranium facility licensing. Dr. Meyer currently consults for the International Atomic Energy Agency on uranium-related issues, in addition to serving as the Radiation Safety Officer (RSO) of Record on three uranium mill tailing remedial action sites in Wyoming and Texas. Dr. Meyer's career includes research at the Oak Ridge National Laboratory, independent human health risk assessments at U.S. nuclear weapons facilities, uranium remedial action and new uranium facility licensing activities, and health physics programs for the public and workers at 22 U.S. uranium mill tailings sites.

Item 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS:

Information regarding this subject is provided in detail in Chapter 5 of the Reno Creek Project, Source Material License Application, Technical Report.

1536 Cole Blvd.
Suite 330
Lakewood CO 80401

Ph. 303-953-7975
Fx. 303-953-7994

Item 9. FACILITIES AND EQUIPMENT:

Information on the AUC Reno Creek Project Facilities and Equipment is provided in detail in Chapter 3 of the AUC Reno Creek Project, Source Material License Application, Technical Report.

Item 10. RADIATION SAFETY PROGRAM:

Information on the AUC Reno Creek Project Radiation Safety Program is provided in detail in Chapter 5 of the AUC LLC ISR Project, Source Material License Application, Technical Report.

Item 11. WASTE MANAGEMENT:

Information on this subject is provided in detail in Chapter 4 of the AUC Reno Creek Project, Source Material License Application, Technical Report.