

July 14, 2015

Mike Thomas
Vice President, Regulatory and Public Affairs
Uranerz Energy Corporation
P.O. Box 50850
1701 East E Street
Casper WY, 82605-0850

SUBJECT: URANERZ ENERGY CORPORATION, NICHOLS RANCH ISR PROJECT,
REQUEST FOR ADDITIONAL INFORMATION, MAY 20, 2015, PROPOSAL TO
TRAIN PLANT OPERATORS AND OTHER SUITABLE PERSONNEL TO
PERFORM DAILY INSPECTIONS, LICENSE SUA-1597, TAC J00727

Dear Mr. Thomas:

By letter dated May 20, 2015, Uranerz Energy Corporation (Uranerz) submitted to the Nuclear Regulatory Commission (NRC) a proposed an administrative amendment to the Nichols Ranch ISR Project Technical Report Section 5.3, "Management Audit and Inspection Program," and Section 5.4, "Qualifications for Personnel Conducting the Radiation Safety Program" (NRC Agencywide Documents Access and Management Systems (ADAMS) Accession No. ML15174A331). The administrative amendment included proposed page changes to the Technical Report. The purpose of the proposed changes is to describe a program to train plant operators and other suitable personnel (i.e., "designees") to perform daily radiation safety inspections.

The NRC staff has reviewed the information and is requesting additional information. The staff's request for additional information (RAI) is enclosed, herein. The NRC staff has determined that the proposed changes require an amendment to Materials License SUA-1597.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions, please contact me at (301) 415-7777, or at Ron.Linton@nrc.gov.

Sincerely,

/RA/

Ron C. Linton, Project Manager
Uranium Recovery Licensing Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket No.: 040-09067

License No.: SUA-1597

Enclosure: Requests for Additional Information

cc: Mr. Miles Bennett, WDEQ

If you have any questions, please contact me at (301) 415-7777, or at Ron.Linton@nrc.gov.

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cc: Mr. Miles Bennett, WDEQ

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**Request for Additional Information
May 20, 2015 License Amendment Request
Proposal to Train Plant Operators and Other Suitable Personnel to
Perform Daily Inspections
Materials License SUA-1597; Docket No. 040-09067**

The purpose of the following Requests for Additional Information (RAI) is to provide the additional information and data that are necessary for the U.S. Nuclear Regulatory Commission (NRC) staff to complete its review of a Uranerz Energy Corporation (Uranerz) May 20, 2015, request to include a new program to train plant operators and other suitable personnel (i.e., "designees") to perform daily radiation safety inspections as an administrative amendment to the Nichols Ranch ISR Project Technical Report Section 5.3.

1. Description of Deficiency

Uranerz did not include NRC Form 313 with the May 20, 2015, request.

Basis for Request

Title 10, Code of Federal Regulations (10 CFR), 40.44, "Amendment of licenses at request of licensee," requires that application for amendment of a license shall be filed on NRC Form 313 in accordance with §40.31 and shall specify the respects in which the licensee desires the license to be amended and the grounds for such amendment.

An amendment to License Condition (LC) 9.7 is necessary since Uranerz is currently required to follow the guidance in Regulatory Guide 8.31. Approval of the designee program will need to be referenced as an exception to the guidance in Regulatory Guide 8.31.

Request for Additional Information

- a. Please provide a completed NRC Form 313 associated with the May 20, 2015, request.
- b. Provide draft language for amending LC 9.7 for approval of this request for consideration by NRC staff. A response to RAI 1.b. is optional.

2. Description of Deficiency

In its May 20, 2015, request, Uranerz provided proposed page changes to a version of the Technical Report which is not the most recent version cited in the license, and which is inconsistent with changes proposed in its May 8, 2014, license amendment request to add the Jane Dough Unit.

Basis for Request

In accordance with 10 CFR 40.31(b), "Application for specific licenses," the Commission may at any time after the filing of the original application, and before expiration of the license, require further statements in order to enable the Commission to determine

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whether the application should be granted or denied or whether a license should be modified or revoked.”

Request for Additional Information

Revise the proposed changes using the current revision of the Technical Report.

3. Description of Deficiency

In its May 20, 2015, request, Uranerz proposed revising Section 5.3.2 of the Technical Report to modify the individuals responsible for daily, weekly and monthly inspections. Uranerz proposed a new group called “radiation safety staff representatives” who would perform daily inspections without explaining who is included within this group. The phrases “radiation safety staff representative” and “radiation safety staff” is used fourteen times through the proposed revised Sections 5.3.2 and 5.4. The statement at the bottom of p. TR-214a of the proposed revision states:

Radiation safety staff representatives who have been approved as a radiation safety officer [RSO] or as a radiation safety technician [RST] will be allowed to train designees.

This statement suggests that “radiation safety staff representatives” includes a larger group of individuals than RSOs and RSTs. However, Regulatory Position 2.3.1 of Regulatory Guide 8.31 states that either an “RSO or designated health physics technician should conduct a daily walk-through (visual) inspection of all work and storage areas of the facility...”

Basis for Request

Section 20.1101 of 10 CFR Part 20, “Standards for Protection Against Radiation,” states that licensees must use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable.

Request for Additional Information

Clarify the description of daily inspections in proposed revisions to Sections 5.3.2 and 5.4 of the Technical Report by clearly stating the individuals who are responsible for daily inspections, such as by defining “radiation safety staff representatives” to include only RSOs and RSTs, or by simply stating that only RSOs and RSTs and qualified designees may perform daily inspections.

4. Description of Deficiency

In its May 20, 2015, request, Uranerz proposed changes to the description of the weekly inspection contained in Technical Report Section 5.3.2, “Inspections,” to include a “designee.” However, as stated by Uranerz in its May 20, 2015, letter, the scope of the amendment request is the training, qualification and function of qualified designees for daily inspections only. Therefore, the proposed revision to the description of weekly inspections in TR Section 5.3.2 to include a designee is inconsistent with the scope of the request. Furthermore, the proposed change to include both the RSO and designee

in the description of the weekly inspections is inconsistent with the proposed revised text in TR Section 5.4.1, which states, "Header-houses and the wellfield are inspected by the RSO weekly and are not considered process areas because processing of materials does not occur."

Basis for Request

In accordance with 10 CFR 40.32(c), "General requirements for issuance of specific licenses," the application will be approved if the applicant's proposed equipment, facilities and procedures are adequate to protect health and minimize danger to life and property.

Regulatory Position C.2.3.1 of Regulatory Guide 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Recovery Facilities Will Be As Low As Is Reasonably Achievable" states that the "The RSO and the facility foreman should conduct a weekly inspection of all facility areas to observe general radiation control practices and review required changes in procedures and equipment."

Requests for Additional Information

Remove "designee" in the description of weekly inspections in proposed changes to Section 5.3.2, to be consistent with commitments made elsewhere in the proposal (e.g., proposed p. TR-214a) and Regulatory Position C.2.3.1 of Regulatory Guide 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Recovery Facilities Will Be As Low As Is Reasonably Achievable."

5. Description of Deficiency

In its May 20, 2015, request, Uranerz proposed changes to Section 5.4 to include a new Section 5.4.1 that describes the qualification and training requirements for a radiation safety staff designee. However, on the basis of programs previously approved by NRC staff (NRC 2013, 2014), the staff finds that Uranerz needs to revise the qualification and training requirements to meet the intent of Regulatory Position 2.3.1 of Regulatory Guide 8.31. First, in the second full paragraph of the proposed Section 5.4.1, Uranerz did not clearly state who would be responsible for determining whether a candidate for training as a designee is qualified by reason of education and experience to be a designee. On the basis of programs previously approved by NRC, the RSO should be responsible for making that determination. Second, in the last paragraph of the proposed Section 5.4.1, Uranerz states in item e. that, after the trainee has observed 3 inspections, and been coached on one additional inspection, the RSO will grade the trainee on a single fifth inspection as either pass or fail. On the basis of programs previously approved by NRC, the staff finds that the trainee should perform at least 4 inspections under the supervision of the RSO or RST before being evaluated as proficient.

Basis for Request

In accordance with 10 CFR 40.32(c), "General requirements for issuance of specific licenses," the application will be approved if the applicant's proposed equipment, facilities and procedures are adequate to protect health and minimize danger to life and property.

Section 20.1101 of 10 CFR Part 20, "Standards for Protection Against Radiation," states that licensees must use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable.

Requests for Additional Information

- a. Clarify that the RSO will determine who is qualified to be a candidate for training as a designee.
- b. Revise the training program to state that a trainee will complete no less than 4 supervised daily inspections before being evaluated by the RSO or RST as proficient.

6. Description of Deficiency

In its May 20, 2015, request, Uranerz proposed changes to Section 5.4 to include a new Section 5.4.1 that describes the physical scope of daily inspections. Specifically, Uranerz states that daily inspections for radiation safety concerns do not include the wellfield or header houses, but that these areas will be inspected daily by operations staff for operational concerns. However, on the basis of programs previously approved by NRC staff, the staff finds that the licensee needs to revise the physical scope of these inspections to meet the intent of Regulatory Position 2.3.1 of Regulatory Guide 8.31 to include all "work and storage areas," including byproduct material storage areas, deep well disposal houses, and header houses.

Basis for Request

In accordance with 10 CFR 40.32(c), "General requirements for issuance of specific licenses," the application will be approved if the applicant's proposed equipment, facilities and procedures are adequate to protect health and minimize danger to life and property.

Regulatory Position C.2.3.1 of Regulatory Guide 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Recovery Facilities Will Be As Low As Is Reasonably Achievable" states that the "The RSO or designated health physics technician should conduct a daily walk-through (visual) inspection of all work and storage areas of the facility to ensure proper implementation of good radiation safety procedures, including good housekeeping and cleanup practices that would minimize unnecessary contamination."

Requests for Additional Information

Revise the description of the physical scope of the daily inspections to include the Hank Unit satellite facility and other work and storage areas within the scope of the daily inspections.

7. Description of Deficiency

In its May 20, 2015, request, Uranerz did not clearly commit to limiting the duration that a designee may perform daily inspections, except that the "designee will only perform the

inspections on weekends and holidays when radiation safety staff representatives are not present.” (first paragraph, Section 5.4.1). On the basis of designee programs previously approved by NRC staff, NRC staff finds that a designee may perform daily inspections on weekends and holidays when the RSO and RST are absent; for no more than 2 consecutive days per week, except when a Federal holiday falls on a Monday or Friday (3 days) or Thanksgiving (4 days).

The staff also finds that the Uranerz commitment to review designee reports “within 3 days of completion of the inspections except in the case of holidays or extenuating circumstances, such as an adverse weather event” is not clear. On the basis of designee programs previously approved by the NRC, staff finds that designee reports should be reviewed by the close of business on the first day the RSO or RST returns to work.

Basis for Request

In accordance with 10 CFR 40.32(c), “General requirements for issuance of specific licenses,” the application will be approved if the applicant’s proposed equipment, facilities and procedures are adequate to protect health and minimize danger to life and property.

Request for Additional Information

Revise the description of the designee program to be consistent with staff positions on designee programs, including: (1) the duration that a designee may perform daily inspections; and (2) the timeliness of RSO or RST reviews of designee reports.

References

NRC 2002b. *Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Recovery Facilities Will Be As Low As Is Reasonably Achievable*. Regulatory Guide 8.31, Revision 1, Washington, D.C. Accession No. ML021260630.

NRC 2013. Letter from A. Persinko to S. Hatten, dated April 22, 2013, regarding “Lost Creek Project, Source Materials License SUA-1598 License Amendment No. 1 – Technical Report Page Changes, 2011-2012 Financial Assurance Update, and Addition of Two Dryers (TACS J00562, J00662, J00665).” Washington, D.C. Accession No. ML13016A071.

NRC 2014. Letter from L. Camper to L. Teahon, dated November 5, 2014, regarding “Materials License SUA-1534, License Renewal, Crow Butte Resources, Inc., Crow Butte Uranium in Situ Recovery Project, Dawes County, Nebraska (TAC J00555).” Washington, D.C. Accession No. ML13324A090.

Uranerz 2015. Letter from M. Thomas to A. Persinko, dated May 20, 2015, regarding “Follow-up to Uranerz Responses to Acceptance Review, Proposal to Train Plant Operators and Other Suitable Personnel to Perform Daily Inspections, Uranerz Energy Corporation, Nichols Ranch Project, Materials License SUA-1597, Campbell and Johnson Counties, Wyoming, Submission Incomplete (TAC J00727).” Casper, WY. Accession No. ML15174A331.