

June 26, 2015

Mr. Michael Griffin  
Vice President of Permitting, Regulatory  
and Environmental Compliance  
Strata Energy, Inc.  
PO Box 2318  
Gillette, WY 82717-2318

SUBJECT: STAFF'S RESPONSE TO SUBMITTALS REGARDING LICENSE CONDITION  
12.4, ROSS ISR PROJECT, CROOK COUNTY, WY, SOURCE MATERIAL  
LICENSE SUA-1601, DOCKET NO. 040-09091, TAC J00735

Dear Mr. Griffin:

By letters dated March 31, 2015 (NRC Agencywide Documents Access and Management System (ADAMS) Accession No. ML15099A581) and June 3, 2015 (ADAMS Accession No. ML15159A404), Strata Energy, Inc. (Strata) provided to the U.S. Nuclear Regulatory Commission (NRC): (1) the qualifications for Mr. Nikolas Roche as the Ross ISR Project Radiation Safety Officer (RSO) and Mr. Michael Griffin as the alternate RSO; (2) a description of qualifications and responsibilities of a designee; and (3) Strata's policy on the work situations for a declared pregnant worker. This information was provided in accord with License SUA-1601, License Condition 12.4 (ADAMS Accession No. ML14069A355).

At this time, Staff has verified the information included in the June 3, 2015, submittal on the qualifications of the RSO and alternate RSO. The qualifications of Messrs. Roche and Griffin meet the requirements and commitments of the approved license application, regulations and/or applicable license conditions. However, for reasons stated herein, staff cannot provide verification that requirements of License Condition 12.4 (LC 12.4) with regard to the designee or declared pregnant worker have been met fully with the submitted documents. Upon Strata addressing the items detailed in the Enclosure, it is anticipated that staff will be able to verify that LC 12.4 requirements have been met.

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 regarding this action, please contact me at 301-415-0697 or by e-mail at [john.saxton@nrc.gov](mailto:john.saxton@nrc.gov).

Sincerely,

**/RA/**

John Saxton, Hydrogeologist  
Uranium Recovery Licensing Branch  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 040-09091  
License No.: SUA-1601

Enclosure: Items for Verification of LC 12.4

cc: D. Schellinger WDEQ

If you have any questions regarding this action, please contact me at 301-415-0697 or by e-mail at [john.saxton@nrc.gov](mailto:john.saxton@nrc.gov).

Sincerely,

**/RA/**

John Saxton, Hydrogeologist  
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DATE	6/25/15	6/25/15	6/25/15	6/25/15	6/26/15	6/26/15

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**U.S. Nuclear Regulatory Commission  
Items for Verification of License Condition 12.4  
Strata Energy, Inc.  
For Source Material License SUA-1601**

The purpose of the following items is to provide Strata with the information and data necessary for the U.S. Nuclear Regulatory Commission (NRC) to review and verify the response from Strata Energy, Inc. (Strata) to its License Condition 12.4.

Description of Deficiency

License Condition 12.4 states that:

Prior to commencement of operations, the licensee shall submit the qualifications of radiation safety staff members, including the qualifications and responsibilities of a designee, and the policy on the work situations for a declared pregnant worker, for NRC review and verification.

In its submittal dated March 31, 2015 (NRC Agencywide Documents Access and Management System (ADAMS) Accession No. ML15099A581), Strata described its qualifications and responsibilities of radiation safety staff designees. NRC staff has the following five concerns with the proposed description of designee qualifications and responsibilities:

- In its first bullet under the section entitled “Qualified Designated Operators (Designee),” Strata stated that the minimum education requirements for a designee shall be “A high school diploma or equivalent or relevant experience working in a uranium recovery facility” (emphasis added). However, on the basis of programs previously approved by NRC staff for other licensees (NRC 2013, 2014b), the minimum education requirement for a designee should be a high school diploma or equivalent.
- Strata did not describe who will decide whether a designee candidate is qualified by reason of education, training, and experience. Programs previously approved by NRC staff indicate that the radiation safety officer (RSO) makes the determination that an individual meets the education, training, and experience requirements to be trained and qualified as a designee (NRC 2013, 2014b).
- Strata’s proposal that a trainee perform three (3) daily inspections without being accompanied by the RSO or Radiation Safety Technician (RST) (when the RSO or RST are at the facility) is not sufficient training for a designee. On the basis of designee programs previously approved by NRC staff, NRC staff finds that a designee trainee should perform at least four (4) supervised daily inspections evaluated by the RSO or RST before being qualified as a designee.
- Strata also did not identify the maximum number of consecutive days a designee may perform daily inspections. 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), and Thanksgiving (4 days).

Enclosure

- Finally, the staff has concerns with Strata's proposal on requalification of designees:

...On a recurring basis the RSO or RST will accompany Qualified [sic] Designated Operators on at least two (2) daily inspections per year.

On the basis of designee programs previously approved by NRC staff, NRC staff finds that the requalification inspection frequency should be clarified to indicate a frequency of no less than semi-annual, to avoid a situation in which a designee would meet the requalification requirement by performing two accompanied inspections at the end of the year.

#### Basis for Request

NUREG-1569, Acceptance Criteria 5.4.3(1) describes the minimum qualifications and experience for radiation safety staff, which refers to the Regulatory Positions in Section 2.4, "Technical Qualifications of Health Physics Staff," 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."

#### Needed Information for Verification

Please revise or clarify the description of the qualifications and responsibilities of a radiation safety staff designee: (1) the minimum education requirement for a designee candidate; (2) who makes the decision that a designee candidate is qualified by reason of education, training, and experience to be a designee; (3) the minimum acceptable independent daily inspections evaluated by the RSO before a designee is qualified by the RSO; (4) the maximum consecutive number of days a designee may perform daily inspections; and (5) the requalification frequency as semiannual, rather than two per year.

#### Description of Deficiency

In its March 31, 2015, submittal, Strata described its policy for a declared pregnant worker. In the last bullet, Strata states that it will conduct proper monitoring of declared pregnant workers to ensure the individual does not receive more than 0.5 rem in a year. The policy should be clarified to state that Strata will limit doses to the embryo/fetus, not the declared pregnant worker. In accordance with 10 CFR 20.1208(a), the licensee shall ensure that the dose equivalent to the embryo/fetus during the entire pregnancy, due to the occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv).

#### Basis for Request

The regulations in 10 CFR 20.1208(a) state:

The licensee shall ensure that the dose equivalent to the embryo/fetus during the entire pregnancy, due to the occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv). (For recordkeeping requirements, see § 20.2106.)

### Needed Information for Verification

Please revise or clarify the Policy for Declared Pregnant Worker to clarify the dose equivalent limit for an embryo/fetus due to occupational exposure of a declared pregnant worker.

### References

NRC (U.S. Nuclear Regulatory Commission). 2002. *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 (U.S. Nuclear Regulatory Commission). 2003. NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications—Final Report," Washington, DC Accession No. ML032250177.

NRC (U.S. Nuclear Regulatory Commission). 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 (U.S. Nuclear Regulatory Commission). 2014a. U.S. Nuclear Regulatory Commission Materials License No. SUA-1601. Washington, D.C. Accession No. ML14069A335.

NRC (U.S. Nuclear Regulatory Commission). 2014b. 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

Strata Energy Corporation (Strata). 2015a. Letter from M. Griffin to NRC, dated March 31, 2015, regarding "Strata Energy Ross In Situ Recovery Project, Source Materials License SUA-1601, Docket No. 040-09091, License Condition 12.4." Casper, WY. Accession No. ML15099A581.

Strata Energy Corporation (Strata). 2015b. Letter from M. Griffin to NRC, dated June 3, 2015, regarding "Strata Energy Ross In Situ Recovery Project, Source Materials License SUA-1601, Docket No. 040-09091, Preoperational License Conditions 12.4." Casper, WY. Accession No. ML15159A404.