



July 1, 2015

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

Re: Strata Energy Ross In Situ Recovery Project  
Source Materials License SUA-1601, Docket No. 040-09091  
License Condition 12.4

To Whom It May Concern:

By letter dated June 26, 2015, the U.S. Nuclear Regulatory Commission (NRC) provided to Strata Energy, Inc. (Strata) a response to Strata's submittals regarding License Condition (LC) 12.4. The NRC staff could not provide verification that the requirements of LC 12.4 were met with regard to the description of qualifications and responsibilities of a designee, and Strata's policy on the work situations for a declared pregnant worker. As such, Strata has enclosed a revised description of the qualifications and responsibilities of a designee and Strata's policy on the work situations for a declared pregnant worker. The revised description is attached as Attachment 1.

Strata was uncertain on one of the descriptions of deficiency. The NRC staff stated:

- *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.*  
[emphasis not added]

Strata believes that perhaps the underlined word "supervised" is supposed to be "unsupervised", as the NRC staff state "without being accompanied" in the sentence directly preceding. Additionally, in the original submittal Strata stated that the designee will perform "at least five (5) inspections where the trainee accompanies the RSO on daily inspections". Thus Strata has assumed that the NRC staff meant "unsupervised", and the revised submittal reflects this position.

The main revisions to the submittal are as follows:

- Removal of the wording "or relevant experience working in a uranium recovery facility" in the first bullet point under the Qualified Designated Operators (Designee) section.
- Strata included the wording "The Vice President of Permitting, Regulatory and Environmental Compliance or the Radiation Safety Officer (RSO) shall make the determination that an

NIMSSO1

individual meets the education, training, and experience requirements to be trained and qualified as a designee.”

- Strata changed the requirements for the number of unsupervised daily inspections evaluated by the RSO or RST from three (3) to four (4) in the sixth bullet point under the Qualified Designated Operators (Designee) section.
- Removal of the wording “In the case that the Designee requires assistance, the RSO or RST will be available by phone.”, as Strata included the wording “The qualified Designee may perform daily inspections on weekends, holidays, or when both the RSO and RST must be absent (e.g. illness or offsite training). A Designee shall not perform daily inspections for more than two consecutive days except in the event of a Federal or company holiday, whereby the Designee will not exceed more than three consecutive days. Reports generated by the Designee will be reviewed by the RSO or RST as soon as practical, but no later than 3 hours from the beginning of the next work day following an absence, weekend, or holiday. The Vice President of Permitting, Regulatory and Environmental Compliance, RSO, or RST(s) will be available by telephone while the qualified Designee is performing the daily inspections.”
- Removal of the wording “All inspections completed by the Designee will be reviewed by the RSO or RST within 24 hours of the RSO or RST returning to work.” This sentence is not accurate, as LC 9.7 states that the RSO or RST will review the work within 3 hours of returning to work.
- Strata changed the wording from “The RSO and RST will continually assess the adequacy of daily inspections completed by all Qualified Designated Operators. On a recurring basis the RSO or RST will accompany Qualified Designated Operators on at least two (2) daily inspections per year.” to “The RSO and RST will continually assess the adequacy of daily inspections completed by all Qualified Designated Operators. On a recurring basis the RSO or RST will accompany Qualified Designated Operators on no less than semi-annual inspections.”
- In the Policy for Declared Pregnant Worker, Strata changed the wording in the fourth bullet point from “...and ensure that the individual does not receive more than 0.5 rem in a year” to “... and 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)”.

Strata identified a potential issue with LC 9.7 to SUA 1601. In LC 9.7, it states “...except in the event of a Federal or company holiday, whereby the designee will not exceed more than three consecutive days”. However, in the letter dated June 26<sup>th</sup> 2015, NRC staff state that “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).” The main difference in the wording is the allowance of four (4) consecutive days of designee inspections for the Thanksgiving holiday. In order to allow for the four (4) days for the Thanksgiving holiday, Strata is requesting a License Amendment to LC 9.7. Strata does not anticipate any issues with this request, as this has been previously approved by NRC staff for designee programs. To support Strata’s request, attached please find the following information:

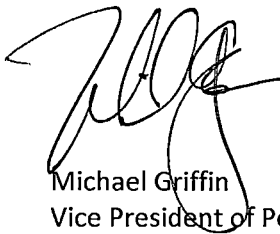
- Completed Form 313, as required by 10 CFR 40 (Attachment 2)

- Supplement to Form 313 (Sections 5-11) (Attachment 3)
- Requested changes to License Condition 9.7 of Source Material License SUA-1601 (Attachment 4)

Strata requests that NRC staff review and verify that the provided information meets the requirements contained in License Condition 12.4 and that NRC staff review and approve the proposed License Amendment. Please contact me if you have any questions. You can reach me at (307) 686-4066 or [mgriffin@stratawyo.com](mailto:mgriffin@stratawyo.com).

Sincerely,

Strata Energy, Inc.

A handwritten signature in black ink, appearing to read 'M. Griffin', is positioned above the printed name and title.

Michael Griffin

Vice President of Permitting, Regulatory and Environmental Compliance

Cc: Mr. John Saxton, NRC Project Manager – **via email**

## **Attachment 1**

*LC. 12.4 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.*

### **Radiation Safety Staff Qualifications**

The Ross Uranium Project radiation safety staff will meet the qualifications as recommended in NRC Regulatory Guide 8.31 "Information Relevant To Ensuring That Occupational Radiation Exposure At Uranium Recovery Facilities Will Be As Low As Reasonably Achievable" and as committed to in Section 5.3 of the Technical Report, "Qualifications for Persons Conducting the Radiation Safety Program". Accordingly, the Radiation Safety Officer (RSO) and Radiation Safety Technician (RST) will have the minimum qualifications:

#### Radiation Safety Officer (RSO)

- Education: A bachelor's degree in the physical sciences, industrial hygiene, or engineering from an accredited college or university or an equivalent combination of training and relevant experience in a uranium recovery facility radiation protection. Two years of relevant experience are generally considered equivalent to one year of academic study.
- Health Physics Experience: At least one year of work experience relevant to uranium recovery operations in applied health physics, radiation protection, industrial hygiene or similar work. This experience should involve actually working with radiation detection and measurement equipment, not strictly administrative or "desk" work.
- Specialized Training: At least 4 weeks of specialized classroom training in health physics specifically applicable to uranium recovery. In addition, the RSO should attend refresher training on uranium recovery facility health physics every two years.
- Specialized Knowledge: A thorough knowledge of the proper application and use of all health physics equipment used in the uranium recovery facility, the chemical and analytical procedures used for radiological sampling and monitoring, methodologies used to calculate personnel exposure to uranium and its daughters, and a thorough understanding of the uranium recovery process and equipment used in the facility and how the hazards are generated and controlled during the uranium recovery process.

#### Radiation Safety Technician (RST)

The RST will demonstrate a working knowledge of the proper operation of the health physics instruments used at the uranium recovery facility, surveying and sampling techniques, and personnel dosimetry requirements. The RST will have at least one of the following combinations of education, training, and experience.

**Option 1:**

- Education: An associate degree or two or more years of study in the physical sciences, engineering, or a health-related field.
- Training: At least a total of four weeks of generalized training (up to two weeks may be on-the-job training) in radiation health protection applicable to uranium recovery facilities.
- Experience: One year of work experience using sampling and analytical laboratory procedures that involve health physics, industrial hygiene, or industrial safety measures to be applied in a uranium recovery facility.

**Option 2:**

- Education: A high school diploma.
- Training: A total of at least three months of specialized training (up to one month may be on-the-job training) in radiation health protection related to uranium recovery facilities.
- Experience: Two years of relevant work experience in applied radiation protection.

**Qualified Designated Operators (Designee):**

The Designee is used at off-shift times (principally weekend and holidays) to complete the Daily Radiation Safety Inspection of the CPP in the absence of both the RSO and the RST. The Designee will not perform more involved procedures such as contamination surveys for the release of items for unrestricted release, survey instrument calibrations, air sampling, issuing RWP's, etc. The qualified Designee may perform daily inspections on weekends, holidays, or when both the RSO and RST must be absent (e.g. illness or offsite training). A Designee shall not perform daily inspections for more than two consecutive days except in the event of a Federal or company holiday, whereby the Designee will not exceed more than three consecutive days. Reports generated by the Designee will be reviewed by the RSO or RST as soon as practical, but no later than 3 hours from the beginning of the next work day following an absence, weekend, or holiday. The Vice President of Permitting, Regulatory and Environmental Compliance, RSO, or RST(s) will be available by telephone while the qualified Designee is performing the daily inspections. The Vice President of Permitting, Regulatory and Environmental Compliance or the Radiation Safety Officer (RSO) shall make the determination that an individual meets the education, training, and experience requirements to be trained and qualified as a Designee. The Designee will have the following qualifications and training:

- Education: A high school diploma or equivalent. The RSO will review and approve on a case by case basis.
- Completed new employee radiation protection training and annual refresher training as required.
- At least 3 months of employment at a uranium recovery facility in the capacity of a Central Plant or IX Satellite operator, or supervisor, familiar with operations of the facility and knowledgeable of health physics, industrial safety and industrial hygiene practices used to maintain radiological levels ALARA.

- Onsite training for the Qualified Designated Operator will be conducted by the RSO and will consist of at least five (5) inspections where the trainee accompanies the RSO on daily inspections and three (3) hours of classroom type instruction. Items covered will include, but not be limited to, the following:
  - Review of the Daily Inspection Form and how to complete it.
  - Instrument checks at the personal contamination survey stations and the radon continuous air monitor (CAM), as applicable.
  - Significant spills or leaks of chemicals or process fluids that require clean up.
  - General housekeeping.
  - Proper use and storage of PPE (including respirators).
  - Ventilation, heating and lighting adequacy.
  - Security concerns such as locked doors, main gate operations and the operability of video surveillance systems (if applicable).
  - Communication systems working properly (phones, 2-way radio).
  - Any unanticipated conditions or hazards that cause concern with radiation or environmental protection
- As part of the training, as a Qualified Designated Operator, the trainee will successfully complete a written test that demonstrates the trainee's proficiency with any equipment and understanding and all requirements of the inspections and use of the form. Proficiency will be acceptable with a test core of 80% or greater.
- Prior to final approval by the RSO, the trainee will complete four (4) daily inspections without being accompanied by the RSO or RST (when the RSO or RST are at the facility) and the RSO will assess the results of each inspection to verify the adequacy of the inspection.
- Upon successful completion of the test and unaccompanied inspections, the RSO may authorize the trainee as a Qualified Designated Operator. All documentation will be retained on file.
- The RSO and RST will continually assess the adequacy of daily inspections completed by all Qualified Designated Operators. On a recurring basis the RSO or RST will accompany Qualified Designated Operators on no less than semi-annual inspections. The RSO or RST will signify in writing by signing (initialing) and dating the inspection reports completed by Designees. All training and testing will be documented in writing.

#### **Policy for Declared Pregnant Worker**

All female workers and their supervisors hired at the Ross Uranium Project will be instructed in NRC Regulatory Guide 8.13 "Instruction Concerning Prenatal Radiation Exposure" and NRC Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Radiation Exposure". In accordance with the

recommendations in NRC Regulatory Guide 8.13 the regulatory guide will be provided to these employees in hard copy and they will be instructed on its contents including the opportunity to ask questions and request additional information. The instruction will also include the following company policies regarding "declared pregnant workers":

- All female workers hired at the Ross Uranium Project will be provided with NRC Regulatory Guide 8.13 and they will be required to sign an acknowledgement that they received the regulatory guide and the applicable instruction and they understand the instruction.
- The RSO is the company contact for all related information. The RSO will maintain all dose records.
- Workers will be informed that in order for a pregnant worker to take advantage of the lower exposure limit and dose monitoring provisions specified in 10 CFR Part 20, the woman must declare her pregnancy in writing to Strata. A form for this purpose is included in Regulatory Guide 8.13. A written and signed "Declaration of Pregnancy" will be kept on file by the Human Resources Department.
- It is Strata's policy that in the case that a "Declaration of Pregnancy" is provided the worker will be reassigned as necessary to limit exposure to ionizing radiation to levels that are as low as reasonably achievable. Strata will conduct the proper monitoring in accordance with NRC Regulatory Guide 8.13 to minimize the amount of radiation exposure and 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).

**Attachment 2**

**ROSS URANIUM PROJECT SUA-1601 SOURCE MATERIALS LICENSE AMENDMENT REQUEST  
NRC Form 313 Attachment**



NRC FORM 313

(03-2014)  
10 CFR 30, 32, 33, 34  
35, 36, 37, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR MATERIALS  
LICENSE

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 05/31/2015

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 FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [Infocollections.Resource@nrc.gov](mailto:Infocollections.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.

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. \*AMENDMENTS/RENEWALS THAT INCREASE THE SCOPE OF THE EXISTING LICENSE TO A NEW OR HIGHER FEE CATEGORY WILL REQUIRE A FEE.

## 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

SUA-1501☐

C. RENEWAL OF LICENSE NUMBER

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

Strata Energy, Inc.  
PO Box 2318  
Gillette, WY 82717-2318

## 3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

STRATA ENERGY  
2929 NEW HAVEN ROAD  
OSHOTO, WY 82721

## 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Mike Griffin

## BUSINESS TELEPHONE NUMBER

307-686-4066

## BUSINESS CELLULAR TELEPHONE NUMBER

## BUSINESS EMAIL ADDRESS

[mgriffin@stratawyo.com](mailto:mgriffin@stratawyo.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 (Fees required only for new applications, with few exceptions\*)  
(See 10 CFR 170 and Section 170.31)

FEE CATEGORY

AMOUNT  
ENCLOSED \$

## 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, 37, 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

SIGNATURE

DATE

1 July 2015

## FOR NRC USE ONLY

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

### Attachment 3

#### ROSS URANIUM PROJECT SUA-1601 SOURCE MATERIALS LICENSE AMENDMENT REQUEST

#### NRC Form 313 Attachment

#### Items 5 Through 11

##### Applicant

Strata Energy, Inc.

1900 W. Warlow Dr., Bldg. A,

Gillette, Wyoming 82716

##### **5. Radioactive Material:**

###### a) Element and Mass Number:

Uranium- Unat (U238, U234, and U235)

###### b) Chemical and/or Physical Form:

Chemical form is U308

Solution of 0 to 50 grams/liter

Dried Yellowcake- 50% to 80% U

###### c) Maximum Amount which will be possessed at any one time:

Unlimited

##### **6. PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED:**

Fuel for electricity generation from nuclear power plants.

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

Individual: Michael Griffin

Training: 31 years as Radiation Safety Officer experience including Uranium Mill Tailings Remedial Action (UMTRA) Project; Title II conventional uranium mill decommissioning projects; Manager of Health, Safety and Environment Affairs for Cameco Resources (Crow Butte Mine (SUA-1534) 1998-2006); Vice President of Safety, Health, and Environment for Uranium One (Willow Creek Uranium Project (SUA-1341) 2007 to 2012); Vice President of Permitting, Regulatory and Environmental Compliance for Strata Energy, Inc. (2012 to Present).

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

This information is provided in detail in Section 5 of the approved License Application and supplemental submissions.

##### **9. FACILITIES AND EQUIPMENT:**

This information is provided in detail in Section 3 of the approved License Application and supplemental submissions.

**10. RADIATION SAFETY PROGRAM:**

This information is provided in detail in Section 5 of the approved License Application and supplemental submissions.

**11. WASTE MANAGEMENT:**

This information is provided in detail in Section 4 of the approved License Application and supplemental submissions.

## **Attachment 4**

### **ROSS URANIUM PROJECT SUA-1601 SOURCE MATERIALS LICENSE AMENDMENT REQUEST License Amendment Request**

The section of License Condition 9.7 to be amended currently reads:

- *A qualified designee may perform daily inspections on weekends, holidays, or times when both the RSO or RST(s) must both be absent (e.g., illness or offsite training). A designee shall not perform daily inspections for more than two consecutive days except in the event of a Federal or company holiday, whereby the designee will not exceed more than three consecutive days.*

Strata requests that the wording of License Condition 9.7 stated above be changed to:

- *A qualified designee may perform daily inspections on weekends, holidays, or times when both the RSO and RST(s) are absent. A qualified designee shall perform daily inspections 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).*