



August 4<sup>th</sup>, 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  
Supplemental Information Regarding Preoperational License Condition 12.11, Subpart E; and  
Training Program for Designees

To Whom It May Concern:

In January, 2014, the Nuclear Regulatory Commission (NRC) issued a Safety Evaluation Report (SER) for the Strata Energy, Inc. (Strata) Ross ISR Project in Crook County, Wyoming. The NRC stated in the SER Section 7.3.5:

*"NRC staff finds that the applicant's commitments to (1) follow transportation regulations pursuant to 49 CFR Parts 171-180, (2) develop procedures which minimize and mitigate traffic accident consequences and (3) adhere to response reporting requirements of 10 CFR 20.2202 and 20.2203 are consistent with acceptance criteria (1), (2) and (4) of Section 7.5 in the SRP (NRC, 2003). Staff finds that the applicant has not committed to the requirements of 10 CFR 71.5, which specifies that each licensee who transports licensed material outside its site or on public highways must comply with DOT regulations in 49 CFR Parts 107, 171 through 180, and 390 through 397, as appropriate to the mode of transport. If the DOT requirements are not applicable, then a licensee must submit a request for modification, waiver or exception to the NRC.*

*NRC staff includes License Condition 12.11 described in SER Section 3.1.4 specifying that an SOP including information on transportation of license material outside of the license area be prepared. This license condition will fulfill the deficiency noted above with respect to a commitment to comply with 10 CFR 71.5. NRC staff will review the applicant's SOPs as part of the required pre-operational inspection to ensure compliance with its commitments and with requirements of 10 CFR 71.5. During operations, NRC staff will continue to review the SOPs through routine inspections as the applicant will be required to update the SOPs to reflect future conditions. Based on the applicant's commitments, the noted license condition, and future compliance inspections, staff has reasonable assurance that the applicant will meet its commitments for preparing SOPs to address transportation of licensed material outside of the license area prior to and during operations."*

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The applicable part from the SER Section 3.1.4 is:

*"Staff will also include the following facility specific license condition to ensure that standard operating procedures are prepared and utilized during construction:*

*Facility Specific License Condition 12.11: Prior to the preoperational inspection, the licensee will provide to the NRC written standard operational procedures (SOPs) required for LC 10.4, which will include information to meet the following specific-site conditions:*

- A) Development and sampling of low-yielding monitoring wells.*
- B) Inspection procedures for the CPP dewatering system.*
- C) A CPP effluent and environmental monitoring program (if not incorporated into the groundwater detection monitoring program required by LC 10.20).*
- D) An emergency response program that includes hazard assessment of all chemicals used at the facility including an accident analysis for those chemicals.*
- E) Transportation of licensed material outside of the License area."*

Per License Condition (LC) 12.11, Subpart E, Strata submitted a written Standard Operating Procedure (SOP) for the transportation of licensed material outside the License area to the NRC for review and verification on April 1<sup>st</sup>, 2015 (ADAMS Accession Number: ML15103A283). Strata is submitting to the NRC supplemental information for that SOP to ensure that all requirements set forth in LC 12.11, Subpart E, are met.

Specifically, Strata commits to following the applicable requirements set forth in 10 CFR 20.1906 and 10 CFR 71 relating to the transportation or receipt of radioactive material. To accomplish this, Strata has developed several SOPs which will ensure compliance. These SOPs will be available for inspection upon request. The SOPs include:

- Section H.7: CONTAMINATION CONTROL PROGRAM FOR POTENTIALLY CONTAMINATED EQUIPMENT THAT IS MAINTAINED ON-SITE of Strata's Radiation Protection Program (RPP);
- Section K: TRANSPORTATION OF RADIOACTIVE MATERIALS of Strata's RPP; and
- Section E: HAZARDOUS MATERIALS TRANSPORTATION TRAINING of Strata's Training Program.

Section H.7 was submitted to the NRC as Attachment 1 of the April 1<sup>st</sup>, 2015 letter. Upon further review, Strata noticed a deficiency in the program as submitted, namely that no provisions were made to perform surveys to determine that the radiation and contamination levels for the package are indeed below the limits for a package to be considered an "excepted package". The potential need for surveys of this type, and a possible solution, is addressed in LC 9.6. LC 9.6 states, in part:

*"The licensee may identify a qualified designee(s) to perform surveys, as needed, associated with the licensee's contamination control program when moving or transporting potentially contaminated equipment, materials, or packages from restricted or controlled areas through uncontrolled areas and back into controlled or restricted areas. The qualified designee(s) shall have completed education, training, and experience, in addition to general radiation worker training, as specified by the licensee. The education, training, and experience required by the*

*licensee for qualified designees shall be submitted to the NRC for review and written verification. The licensee shall receive written verification of the licensee's qualified designee(s) training program prior to its implementation."*

Strata has identified three activities which will initially be the routine causes for moving potentially contaminated equipment, materials, or packages from restricted or controlled areas through uncontrolled areas and back into controlled or restricted areas. The three activities are:

- The moving of resin trucks from Strata's CPP area to an offsite location for further processing of the resin. The offsite location will be a restricted or controlled area.
- The moving of byproduct material from Strata's CPP area to an offsite location for disposal. The offsite location will be a restricted or controlled area.
- The moving of equipment, materials, or packages from the Controlled Area of the wellfields to the Controlled Area containing the Central Processing Plant (CPP), or the CPP area.

Initially, resin truck and byproduct shipments will only be scanned by qualified and trained Radiation Safety staff until such time as an employee has met the requirements to be considered a qualified "designee". The proposed education, training, and experience required by the qualified "designee(s)" is provided in Attachment 1 as Strata's Training Program: Surveys for Contamination Control. Only those individuals which have met the requirements set forth in the Training Program: Surveys for Contamination Control will be able to perform a resin truck or byproduct shipment release survey. Other activities which require surveys described above to be performed may also be done by qualified "designees" at the Radiation Safety Officer's discretion.

In regards to the movement of material from the wellfields to the CPP area, Strata does not yet have operational data to verify that the packages which will be transported will meet the requirements of "excepted packages". As such, packages from the wellfield will initially be surveyed by qualified and trained Radiation Safety staff prior to shipment to ensure that the appropriate limits are met. It is anticipated that most of the shipments from the wellfield will be equipment or material that is commonly shipped, such as piping, pumps, etc. As such, qualified staff will perform at least ten (10) surveys for each common type of equipment or material. The results from the surveys will be used to determine if reasonable assurance can be provided that the packages meet the requirements for "excepted packages". Reasonable assurance will be attained if the average radiation and contamination levels measured for a package containing a common type of equipment or material are below 75% of the limits for an "excepted package". In the event that a shipment is made from the wellfield of equipment or material which has not yet been verified, the Radiation Staff will perform a survey of the package prior to shipment. This will also include shipments of combinations of common equipment or material, until such time as the combination has been verified. For example, if wellfield operators routinely ship piping and an attached pump, then verification that the package consisting of the pipe and pump meets the requirements for an "excepted package" will be made. It will not be sufficient to state that the pipe and pump meet the requirements individually, and thus they will meet the requirements grouped together. These requirements will be expressed to Strata employees during initial Radiation Training and during the annual refresher Radiation Training.

Strata believes that the results from the study will be sufficient to verify that the radiation and contamination levels of the packages will be below the limits required for a package to meet the requirements of an "excepted package". If the method described above proves unfeasible, Strata will

train pertinent employees to perform the surveys prior to shipment of the package according to the training program provided as Attachment 1. Only those employees who have met the requirements and are designated as qualified "designee(s)" will be allowed to perform the surveys.

Strata believes that this supplemental information to the SOP for the transportation of licensed material outside the License area will ensure that Strata meets the requirements set forth in LC 12.11, Subpart E. Strata requests that the NRC review and verify the proposed requirements and training program for qualified designee(s). Strata understands that written verification of the qualified designee(s) training program must be received prior to utilization. Please contact me if you have any questions. You can reach me at (307) 686-4066 or [nroche@stratawyo.com](mailto:nroche@stratawyo.com).

Sincerely,

Strata Energy, Inc.

A handwritten signature in black ink, appearing to read 'Nikolas Roche', with a stylized, cursive script.

Nikolas Roche  
Radiation Safety Officer

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

## **Attachment 1**

### **TRAINING PROGRAM: SURVEYS FOR CONTAMINATION CONTROL**

#### **Qualified Designated Surveyor (Designee)**

If potentially contaminated equipment, material, or packages (material) are moved from a restricted or controlled area through an uncontrolled area and back into a controlled or restricted area, the material must be properly surveyed. In addition to the trained and qualified Radiation Safety staff, employees who meet certain requirements will be deemed qualified to perform surveys of the type described above. A Qualified Designated Surveyor (Designee) must meet the requirements set forth below. A Designee is not permitted to perform surveys which release equipment or materials for unrestricted use.

#### *Education*

- A high school diploma or equivalent. The Radiation Safety Officer (RSO) will review and approve on a case by case basis

#### *Experience*

- At least 3 months of employment at a uranium recovery facility;
- Familiar with operations of the facility and knowledgeable of health physics, industrial safety and industrial hygiene practices used to maintain radiological levels ALARA.

#### *Training*

- Completion of new employee radiation protection training and annual refresher training, as required.
- Completion of training specific to surveying. This training will include:
  - Contamination limits;
  - Proper use of survey instruments;
  - Survey locations; and
  - Documentation.
- Completion of a written test that demonstrates proficiency with any equipment and understanding and all requirements of the surveys and proper use of the appropriate form. Proficiency will be acceptable with a test core of 80% or greater.
- Completion of a minimum of five (5) release surveys under the supervision of the RSO or a qualified Health Physics Technician (HPT). The supervised surveys will be documented with signatures of the RSO or a qualified HPT and the Designee. If initial proficiency is not

demonstrated, re-evaluation may be allowed by performing additional surveys. The additional release surveys will be supervised by the RSO and proficiency must be demonstrated to the satisfaction of the RSO.

- Completion of a minimum of five (5) release surveys without direct supervision of the RSO or a qualified HPT. Upon completing the survey, the RSO or a qualified HPT will perform the same survey to verify the accuracy of the measurements obtained by the Designee.

#### *Additional Stipulations*

- The RSO and/or RST will continually assess the adequacy of surveys completed by all qualified Designees. On a recurring basis the RSO or RST will supervise surveys completed by Designees on no less than a semi-annual basis. The RSO or RST will signify in writing by signing (initialing) and dating the survey form completed by the Designee.
- Training documentation will include new employee radiation safety training, training specific to surveying, training tests, and supervised surveys. All training and testing will be documented in writing and will be maintained by the RSO.
- A list of all personnel who have met the requirements of a qualified "Designee" will be kept by the RSO. The date the employee met the requirements for a "Designee" and the dates when the semi-annual "refresher" surveys were supervised will be noted.