



December 23, 2015

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Office of Nuclear Material Safety and Safeguards
Washington, DC 20555-0001

Re: Strata Energy, Inc. Ross In Situ Recovery Project
Source Materials License SUA-1601, Docket No. 040-09091
Request to Amend License Condition 10.12

To Whom It May Concern:

Strata Energy, Inc. (Strata) recently completed activities associated with the preparation of the Mine Unit 1 (MU1) Wellfield Data Package required by License Condition (LC) 10.13 of SUA-1601. During the review and verification process conducted by NRC staff, the amended LC 10.12 language, contained in Amendment 1 of SUA-1601 as a result of the Atomic Safety and Licensing Board (ASLB) Initial Decision in LBP-15-3, required significant clarification between NRC staff and Strata. The clarification necessary to allow NRC staff verification is documented in the November 2015 *Technical Evaluation Report, Materials License SUA-1601, Verification of Mine Unit 1 Wellfield Package* (TER, ML15324A441) and associated correspondence. In order to prevent future clarification issues, Strata is requesting that NRC amend LC 10.12 to better reflect NRC staff requirements and site-specific attributes of the Ross ISR Project. The following provides a brief technical discussion, existing LC 10.12 language, and proposed amended language for LC 10.12.

DISCUSSION

I. LBP-15-3 and the Revised LC 10.12 Language were Clearly Intended to Address Downward Vertical Migration of Solutions in an Alternate Concentration Limit (ACL) Scenario

In 4.130 of LBP-15-3, the ASLB contemplated potential impacts to the underlying monitoring interval (deep monitor or "DM" zone) downgradient from the production zones (ore zone or "OZ") due to the uncertainty of declining concentrations of uranium in an ACL scenario decades after restoration. In order to address this concern, the ASLB initial decision in LBP-15-3 and the resulting Amendment 1 to SUA-1601 require Strata to attempt to locate and re-abandon downgradient historic drill holes that penetrate into the DM interval and are a specified distance from the perimeter monitor well ring. That distance is the closer of the aquifer exemption boundary prescribed from the EPA or the NRC license boundary. In practice the

NM5501

closer boundary will always be the aquifer exemption boundary, since it lies entirely within the NRC license boundary and beyond the perimeter monitor (PM) well ring. Strata interpreted the amended language to require re-abandonment of the drill holes that penetrate the DM interval from the perimeter monitor well ring to the science-based aquifer exemption boundary, which is 100 feet beyond the perimeter well ring. The Ross MU1 wellfield is the most upgradient of the Ross mine units, with several thousand feet to the downgradient project-wide aquifer exemption boundary. NRC staff interpreted the amended LC as requiring plugging of all historic drill holes downgradient of MU1 to the overall Ross ISR Project aquifer exemption boundary. This interpretation required nearly 125 drill holes outside of the MU1 perimeter ring to be re-entered for abandonment. These drill holes were in addition to the 434 holes previously re-entered and re-abandoned in support of the MU1 Wellfield Data Package. The discussions between NRC staff and Strata in three Category 1 public meetings and as documented in the TER required significant time as did the re-abandonment of these additional drill holes. In order to clarify the intent of LC 10.12 Strata is requesting that NRC amend LC 10.12 in order to better align the NRC staff objectives in an ACL application scenario and site-specific conditions encountered at the Ross ISR Project.

The revised language that Strata is requesting has been proposed by NRC staff as part of the AUC LLC, Inc. licensing process for the Reno Creek ISR Project (ML15323A358) and reflects NRC staff requirements of a licensee in terms of protection of an underlying interval in a future potential ACL application.

Strata requests that NRC amend LC 10.12 as follows:

II. Current License Condition 10.12 with Strikethrough and Replacement Text Indicating Language to be Revised:

Prior to conducting tests for a wellfield data package, the licensee will attempt to locate and abandon all historic drill holes within: ~~A) the perimeter well ring for the Wellfield; and B). In addition, to the extent the historic drill holes extend into the first underlying aquifer, the licensee will attempt to locate and abandon all historic drill holes within an area that is downgradient of the Wellfield and is between the perimeter well ring for the Wellfield and the closer of either~~

- i. ~~The Ross Project license area boundaries shown in Figure 1.4 2 of the approved license application; or~~*
- ii. ~~The outer boundary of the exempted aquifer as defined by the Class III UIC permit issued by the Wyoming Department of Environmental Quality.~~*

and the anticipated point of exposure for a future ACL application pursuant to 10 CFR Part 40, Appendix A, Criterion 5B(5)(c) either

- i. Prior to the start of operations of the Wellfield proposed in the wellfield data package; or*
- ii. Prior to the submittal of an ACL application. If the drill holes are abandoned after the start of operations of a wellfield, then the licensee will be required to attempt to*

verify the location of such drill holes prior to the start of operations of that wellfield and provide the cost to cover the eventual abandonment of the drill holes in its financial assurance estimate.

The licensee will document such efforts to identify and properly abandon all drill holes in the wellfield data package.

The requested amendment will meet the requirements of the ASLB initial decision while preventing future confusion regarding drill hole abandonment efforts. To support Strata's request, attached please find the following information:

- Completed Form 313, as required by 10 CFR Part 40 (Attachment 1)
- Supplement to Form 313 (Sections 5-11) (Attachment 2)

Please contact me if you have any questions. You can reach me at (307) 686-4066 or mgriffin@stratawyo.com.

Sincerely,
Strata Energy, Inc.

A handwritten signature in blue ink, appearing to read 'M. Griffin', with a stylized flourish at the end.

Michael Griffin
Vice President of Permitting, Regulatory and Environmental Compliance

cc: Mr. John Saxton, NRC Project Manager – **via email**
Enclosures: As Noted

Attachment 1
ROSS ISR PROJECT SUA-1601 SOURCE AND BYPRODUCT MATERIALS LICENSE AMENDMENT
REQUEST
NRC Form 313

NRC FORM 313

(10-2015)

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: 12/31/2015

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 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.

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:

MATERIALS SAFETY LICENSING BRANCH
DIVISION OF MATERIAL SAFETY, STATE, TRIBAL AND RULEMAKING PROGRAMS
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
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-1601

☐

C. RENEWAL OF LICENSE NUMBER

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

Mike Griffin
P.O. Box 2318
Gillette, WY 82717

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Ross ISR Project
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

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

Mike Griffin, VP--Permitting, Regulatory and Environmental
Compliance

SIGNATURE

DATE

12-23-15

FOR NRC USE ONLY

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

Attachment 2
ROSS ISR PROJECT SUA-1601 SOURCE AND BYPRODUCT 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 UO_4

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: Nikolas Roche, RSO

Training: Master's Degree in Health Physics from Colorado State University; three (3) weeks of specialized training in information directly relevant to Uranium Recovery facilities; two (2) years of experience working at a uranium recovery facility at Cameco's Smith Ranch-Highland site (2012-2013); currently Radiation Safety Officer for Strata Energy, Inc. (2015-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.