

July 22, 2015

MEMORANDUM TO: John Saxton, Project Manager  
Uranium Recovery Branch  
Division of Decommissioning, Uranium Recovery,  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

FROM: Reginald Augustus, Financial Project Manager */RA/*  
Performance Assessment Branch  
Division of Decommissioning, Uranium Recovery,  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: STRATA ENERGY, INC. IN SITU RECOVERY (ISR) FACILITY  
2015 ANNUAL SURETY UPDATE SAFETY EVALUATION  
REPORT

Enclosed is the Performance Assessment Branch's (PAB) Safety Evaluation Report input with respect to the 2015, surety estimate for the Strata Energy Inc.'s Ross In Situ Recovery Project located in Crook County, Wyoming. Please contact Reginald Augustus if you have any specific questions regarding PAB's input.

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

Enclosure:  
Safety Evaluation Report Input

CONTACT: Reginald Augustus, DUWP/NMSS  
(301) 415-0165

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<b>DATE</b>	4/22/15	4/27/15	7/21/15	7/22/15

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## SAFETY EVALUATION REPORT INPUT

DATE: April 21, 2015

DOCKET: 040-09091

LICENSEE: STRATA ENERGY, INC.

SITE: Ross In Situ Recovery Project, Crook County, Wyoming

PROJECT MANAGER: John Saxton

TECHNICAL REVIEWER: Reginald Augustus, John Saxton

SUBJECT: Strata Energy, Inc. 2015 Surety Estimate

### **REGULATORY REQUIREMENTS**

The Performance Assessment Branch (PAB) staff reviewed Strata Energy Inc.'s (Strata) surety estimate in accordance with the requirements in 10 CFR Part 40, Appendix A, Criterion 9, and in License Condition 9.5 of Materials License SUA-1601. The PAB staff used NUREG-1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications" (SRP) as guidance in determining elements to be included in the surety review. Specifically, Staff used the review procedures and acceptance criteria in Section 6.5, and guidance in Appendix C of the SRP. Staff used Wyoming Department of Environmental Quality (WDEQ) Land Quality Division Guideline 12 "Standardized Reclamation Performance Bond Format and Cost Calculation Methods" (Guideline 12) when applicable, to verify that acceptable and appropriate unit costs were included in the surety calculations, and actual costs or contractor price quotes.

### **DISCUSSION**

By letter dated January 14, 2015, Strata submitted to the U.S. Nuclear Regulatory Commission (NRC), for review and approval, its 2015 surety estimate (ADAMS Accession No ML15036A062). Staff from PAB was requested to provide technical assistance in the review of the surety estimate. Specifically, the PAB staff was requested to review the adequacy of calculations used to derive the cost estimates and the appropriateness of the instrument used to maintain the surety. Staff reviewed the surety estimate concurrently with Wyoming's Department of Environmental Quality (WDEQ). Based on comments from WDEQ, the licensee provided responses to WDEQ's comments. In addition, by letters dated March 23, 2015 and April 28, 2015, the licensee submitted revisions to the Restoration Action Plan (RAP) and the surety estimate (ADAMS Accession No ML15089A024 & ML15146A020 respectively). This memorandum documents the results of PAB staff's review of the initial submission, responses to WDEQ's comments, and the revised RAP and surety estimate.

Enclosure

### **Adequacy of the Calculations**

In the surety calculations, the licensee includes costs for decommissioning and decontamination (D&D) of the first four wellfield modules at Mine Unit 1, the Central Processing Plant (CPP), water storage ponds and all other related facilities anticipated to be constructed during the first year. The estimate also includes the costs to complete final reclamation for limited well installation activities in a portion of MU-2 and reclamation of approximately 2,100 feet of secondary access road in MU-2. Construction of any Module Buildings or trunklines at MU-2 will likely be added to the next annual surety update. The unit costs for D&D are consistent with WDEQ Guideline 12 or actual prices/rates from on-site activities or contractor quotes.

Strata estimates the cost to decommission and decontaminate the facility by an independent third party at \$6,397,000. This figure represents a decrease of \$3,425,600 from the amount originally submitted by the licensee of \$9,822,600. The lower surety estimate was due to the following major changes over the plans for facility construction and operation and some revisions to the RAP:

- Yellowcake processing and drying will not be done at the CPP during the first year. The CPP will only be used as a Satellite IX facility with loaded IX resin shipped to another licensed facility for toll processing. Uranium elution, precipitation and drying equipment will not be installed.
- Reduction in CPP size that will initially only house IX type equipment.
- The operation of the facility as a Satellite eliminates the need for a chemical storage and separate warehouse/maintenance building.
- Two deep disposal wells may be installed instead of three.
- Only one waste water pond will be initially constructed.
- Due to the fact that Strata owns the land at the CPP site and the local municipalities do not desire that concrete be disposed at municipal landfills, concrete will now be disposed on site as clean fill. All other non-construction related solid waste will be disposed of at the Moorcroft Municipal Landfill.

The cost estimate is based on costs of a third party contractor, does not take credit for any salvage value and includes a 25 percent contingency factor.

SPB Staff has completed its review of the initial surety estimate for Strata's Ross In Situ Recovery Project facility and finds that the licensee has included in the update all activities: (1) listed in the reclamation plan or in Sections 6.1-6.4 of the standard review plan in NUREG-1569; and (2) to be conducted during the period covered by the estimate. Staff finds the licensee has based the assumptions for the financial surety analysis on site conditions, including experiences with generally accepted industry practices, research and development at the site, and previous operating experience.

PAB staff finds the values used in the surety estimate are based on current dollars and reasonable costs for the required reclamation activities are defined. Therefore, staff finds that the licensee has established an acceptable financial assurance cost estimate based on the requirements in 10 CFR Part 40, Appendix A, Criterion 9.

### **Appropriateness of the Financial Instrument**

The instrument to be used by the licensee for the financial assurance update is a reclamation performance bond to be held in favor of the WDEQ. An original copy of the financial instrument will remain with WDEQ for uranium recovery licensing activities based on an agreement between the State and the NRC. NRC will maintain a copy on file of the instrument as well. Along with WDEQ's portion, the bond must include 100 percent of NRC's portion. NRC will obtain a copy of the instrument once approval of the cost estimate has been submitted to the licensee. The surety bond must have a face value of at least \$6,397,000. Staff will find that the surety instrument meets the criteria in 10 CFR Part 40, Appendix A, Criterion 9, once receipt of the updated instrument has been received. Additionally, a standby trust agreement (STA) must be established by the licensee to receive funds in case of the NRC's need to collect the surety. Because the licensee does not have an STA in place at this time as required by 10 CFR Part 40, Appendix A, Criterion 9, in accordance with 10 CFR 40.14(a), staff has elected to request an exemption to the STA requirements in 10 CFR Part 40, Appendix A, Criterion 9, for the current surety arrangement.

### **CONCLUSION**

Based on the information provided in the application, responses to WDEQ's comments, and the detailed review conducted of the surety estimate for Strata's Ross In Situ Recovery Project facility, the PAB staff concludes that the surety estimate reasonably includes funds sufficient to cover the estimated current costs of the facility and is acceptable during the current surety period. Therefore, pending receipt of the revised surety bond amount, the proposed financial surety bond and surety estimate are consistent with 10 CFR Part 40, Appendix A, Criterion 9, and therefore acceptable.