January 23, 2014

Mr. Benjamin J. Schiffer
WWC Project Manager
1849 Terra Avenue
Sheridan, WY 82801

SUBJECT: RESPONSE TO REQUESTS FOR CORRECTION OF SUGGESTED TYPOGRAPHICAL ERRORS IN THE FEBRUARY 2013 SAFETY EVALUATION REPORT AND MODIFICATION TO THE CONSTRUCTION METHODS FOR THE CONTAINMENT BARRIER WALL FOR THE STRATA ENERGY, INC. ROSS IN SITU RECOVERY PROJECT (SUA-1601)
CROOK COUNTY, WYOMING

By letters dated October 14 and 17, 2013, on behalf of Strata Energy, Inc. (Strata), WWC Engineering submitted two requests for U.S. Nuclear Regulatory Commission (NRC) review. The first request, dated October 14th, is an update on the construction methods for installation of the proposed containment barrier wall at the Ross in situ Recovery (ISR) Project (NRC Agencywide Documents Access and Management System (ADAMS) Accession No. ML13295A230). The second request, dated October 17th, contains several suggested typographic corrections to the February 2013 Safety Evaluation Report prepared by staff on the Ross ISR Project application (ADAMS Accession No. ML13296A026).

In regard to the containment barrier wall, Strata reports that all its subcontractors bidding on the construction project propose a method of construction using an extended-boom track-hoe. This method differs from the continuous wheel-type trencher as described in the Ross application. In addition, Strata proposes to initially construct the wall along the southern perimeter of the Central Processing Plant (CPP) area instead of surrounding the CPP area along its southern, eastern and northern perimeters.

NRC staff reviewed the submittals and finds that the alternate construction method for the containment barrier wall will not alter the staff's previous findings in the Safety Evaluation Report and will be included in staff's environmental evaluation pursuant to 10 CFR Part 51 (the Final Supplemental Environmental Impact Statement (FSEIS)). In addition, Strata commits to maintaining the quality assurance objectives for its construction as expressed in the application. Staff agrees that the quality assurance objectives can be met using the alternate construction method.

Staff also finds that the proposed construction of the containment barrier wall only along the southern perimeter will not diminish its planned usefulness. The containment barrier wall is designed to prevent ground water flow through the unconsolidated sediments into the area of the processing plant. Based on the applicant's ground water piezometric data for the unconsolidated sediments and bedrock, the upgradient source of water flowing in the unconsolidated sediments is located along the southern perimeter. Ground water flow from the eastern perimeter of the proposed wall is expected to be minimal though staff notes that the proposed diversion channel to be installed along the eastern perimeter may enhance surface

water infiltration along the eastern perimeter. Strata will be required to comply with license conditions 10.11 and 12.12 for monitoring and demonstration on the effectiveness of the dewatering system of which the containment barrier wall is a component. Staff will revise the FSEIS to document this revision.

Ground water flow along the northern perimeter is from the CPP area towards the Little Missouri River. If an effective dewatering system is installed at the CPP area and the currently existing ponding of surface water in that area is eliminated by altering the channel, then a containment barrier wall along the northern perimeter is not required. Again, Strata will be required to comply with license conditions 10.11 and 12.12 for monitoring and demonstration on the effectiveness of the dewatering system of which the containment barrier wall is a component.

By limiting the containment barrier wall to the southern perimeter, Strata eliminates the concept of an "isolated environment underlying the facility" as described in Section 5.7.8.3 of the application. The lack of an isolated environment has implications on any proposed monitoring program for the surface impounds and wells to demonstrate hydraulic effectiveness of the containment barrier wall. Strata will have to develop appropriate monitoring programs taking into account changes in the extent of the containment barrier wall and needs to provide a contingency plan for installation of the complete containment barrier wall should the effectiveness of the dewatering system fail to meet the desired quality objectives (i.e., to lower the water table below the bottom of the surface impoundments) in the procedures required by license condition 12.11(B).

Staff reviewed the applicant's suggested typographical corrections to the Safety Evaluation Report. Staff implemented the corrections as suggested by the applicant and several additional corrections identified by staff during its review, as they were largely typographical in nature, clarifications of the existing text, or provided consistency to text in other sections of the report. In no cases did any correction substantively change staff's evaluations or conclusions in the Safety Evaluation Report.

In addition to the typographical corrections to the Safety Evaluation Report, the applicant provided a list of instances that it would change the word "would" to "will" in Strata's Technical Report. These changes are in response to early discussions between staff and the applicant on the draft license during which staff agreed to review proposed changes to the application by the applicant in order to eliminate the word "would" in License Condition 9.2. The word "would" was added to License Condition 9.2 because the Applicant had made commitments in the application using the word "would" in lieu of the word "will" or "shall".

Staff reviewed the list of suggested changes by the applicant. Staff finds the word "would" could be removed from License Condition 9.2 provided that the applicant implements the suggested revisions as documented in the October 17th submittal and the following additional instances in the technical report (staff replaced the word "would" with "will" in the following sentences):

Page 3-20, 2nd full paragraph, last sentence

> This monitoring effort <u>will</u> allow corrective action to be immediately taken to locally balance the injection and recovery flows or shut down individual injection wells as necessary.

Page 5-43, 2nd paragraph, 2nd to last sentence

> For any maintenance work and/or spill clean up activities (typically not covered by existing standard operating procedures) a radiation work permit will be prepared which will define specific radiological monitoring and controls for the task.

Page 5-91, last paragraph, 2nd and 3rd sentences

> The surety increase will remain in force until the excursion is controlled. The written 60-day report will explain and justify the course of corrective action that be followed.

Page 6-24, 1st paragraph, 1st sentence (starting on previous page)

> If the stacked roll fronts occur in separate sand units, separate recovery and injection wells will be installed to address the ore in each sand.

In summary, staff finds that the suggested typographical corrections to the Safety Evaluation Report are appropriate and does not alter any substantive findings in that report. Staff will prepare a corrected Safety Evaluation Report in the near future and place it into ADAMS. Staff finds that the applicant's proposed changes from the word "would" to "will" in its technical report, as supplemented with the four instances noted above by staff, cover instances in the application for which the applicant commits to performing a specific action upon which staff based its safety findings. Therefore, staff will be revising license condition 9.2 to remove the word "would" from that condition. Finally, staff also finds that the modifications to the construction of the containment barrier wall will not impact previous findings in the Safety Evaluation Report and have been included in the FSEIS for the Ross project. Staff will revise license conditions 9.2 and 10.11 to reflect the modifications.

In accordance with past NRC practice, applicants are required to submit all page changes to an application prior to issuance of a license. In the case of Strata, the page changes should include the modifications to construction of the containment barrier wall and changes from "would" to "will" as noted above. Please note that any additional requests regarding changes to its application in the future may result in an impact to your licensing schedule.

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 ADAMS. ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

If you have question regarding this matter, please contact me at 301-415-0697, or via email at john.saxton@nrc.gov.

Sincerely,
/RA/

John L. Saxton, Hydrogeologist
Uranium Recovery Licensing Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: 040-09091

cc:
Mike Griffin, Strata Energy Inc.
Miles Bennett, WDEQ/LQD-District 3

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cc:
Mike Griffin, Strata Energy Inc.
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