

November 23, 2015

MEMORANDUM TO: Bill Von Till, Chief
Uranium Recovery Licensing Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

FROM: John L. Saxton, Project Manager */RA/*
Uranium Recovery Licensing Branch
Division of Decommissioning, Uranium Recovery
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Office of Nuclear Material Safety
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SUBJECT: SUMMARY OF 10/20/15 PUBLIC MEETING TO DISCUSS STRATA
ENERGY, INC.'S APPROACH TO ADDRESSING LICENSE
CONDITIONS 12.7, 12.8 AND 10.13

On October 20, 2015, a public meeting was held at U.S. Nuclear Regulatory Commission (NRC) Headquarters, at the request of staff, to discuss Strata Energy, Inc.'s Approach to addressing License Conditions 12.7, 12.8 and 10.13. A summary of the meeting is enclosed.

Docket No.: 040-09091

Enclosure:
Meeting Summary

CONTACT: John Saxton, NMSS/DUWP
(301) 415-0697

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NAME	JSaxton	SAchten	JSaxton
DATE	11/19/15	11/20/15	11/23/15

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MEETING SUMMARY

DATE: October 20, 2015

TIME: 1:00 p.m. to 1:45 p.m.

PLACE: Teleconference

PURPOSE: This meeting was held at the request of staff to discuss Strata Energy, Inc.'s approach address licensing conditions 12.8 and 10.13 for Strata Energy, Inc. Ross ISR facility, Crook County, Wyoming.

ATTENDEES: See Attached Attendee List

BACKGROUND:

By letter dated October 15, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML15278A115), U.S. Nuclear Regulatory Commission (NRC) staff sent Strata Energy, Inc. (Strata) a Request for Additional Information (RAI) on Strata's March 1, and July 27, 2015, submittals regarding License Condition 12.8 (ML15076A014 and ML15219A187, respectively). By letter dated September 8, 2015 (ML15243A422), staff notified Strata of two issues that were critical for the timely verification of the MU1 Wellfield Data Package. The issues were: (1) abandonment of historic drill holes pursuant to paragraph B of License Condition 10.12; and (2) incomplete characterization of the groundwater-flow paths pursuant to License Condition 10.13. By letter dated October 9, 2015 (ML15296A443), Strata submitted to NRC its response to License Condition 10.13 critical verification issue for the Mine Unit 1 (MU1) Wellfield Data Package

NRC staff requested this public meeting to discuss issues identified during its review. The public notice and preliminary agenda for this meeting are attached (Attachment 1).

DISCUSSION:

NRC staff read the opening statement for a Category 1 public meeting. A list of attendees are attached (Attachment 2).

License Condition 12.8

Regarding license condition 12.8, which pertains to Strata's development of a survey program for beta-gamma contamination, Strata stated that it had found some information on radionuclides in pregnant lixiviant in order to estimate weighted counting efficiencies for this mixture. However, Strata did not find specific data on protactinium-234m. NRC staff stated that if data for thorium-234 is available, it would be acceptable for Strata to assume that protactinium-234m is in equilibrium with thorium-234.

Strata stated that instrument efficiencies for the Ludlum Model 43-93 measured at the plant will be lower than those estimated by NRC staff in its draft safety evaluation report (SER) included as Enclosure 2 of the NRC staff's October 15, 2015, letter (Agencywide Documents Access and Management System Accession No. ML15278A115). For example, for a radionuclide mixture representative of pregnant lixiviant, Strata stated the beta-gamma weighted counting efficiency will be about 7 to 8 percent. As a result, Strata will generally calculate higher minimum detectable concentrations (MDCs) than estimated by NRC staff in its October 15, 2015, draft SER with open items.

Strata stated that because it determined that instrument efficiencies are 7 to 8 percent for beta-gamma contamination using the Ludlum Model 43-93, and Strata has not yet calibrated this detector for beta-gamma-emitting radionuclides with beta energies lower than that of protactinium-234m, Strata's scan surveys for beta-emitting contamination will need to have residence times of at least 14 seconds, or a scan rate of about 0.5 centimeter per second (cm/s). For static surveys, Strata stated that scan times will need to be 1.5 minutes, rather than the 1 minute described in its letter dated July 27, 2015. However, Strata stated that it plans to acquire a carbon-14 calibration source to calibrate the Ludlum Model 43-93 at lower energies, in order to improve the MDC for beta-emitting contamination. In the interim period until the Model 43-93 is calibrated for lower energy beta-gamma contamination, Strata will use the slower scan rate of 0.5 cm/s and longer static survey times of 1.5 minutes. Strata will also propose to raise its action level from 75 percent of the regulatory limit, to 90 percent of the regulatory limit. After Strata calibrates the Model 43-93 for its response to lower energies, Strata will revise its survey program to allow: (1) both scan speeds up to 1 cm/s; (2) shorter-duration static surveys of 1 minute; and (3) a lower action level (e.g., 75 percent).

NRC staff stated that it understood Strata's approach and did not raise any issues or concerns. Strata will decide whether to completely replace its previous submittal with a revised submittal, or provide a letter which states only the changes to its previous submittals. Either approach is acceptable, but NRC staff suggested that a completely revised submittal may be easier for both Strata and NRC to track Strata's commitments, representations, and statements on this matter.

License Condition 10.13

Staff asked about the terms used by Strata to describe the response at two wells during the aquifer test as "muted" (well PM19) and "minor" (well PM12). Strata representatives replied that the drawdown at well PM19 was muted related to the observed drawdowns at wells in the overlying unit (SM unit). Staff stated that other SM unit well responses (SM02 and SM12) were also muted; however, unlike well PM19 where the muted response were attributed to the intervening confining unit, the licensee state that all SM wells are in hydraulic communication with the pumped SM well. Strata representatives replied that the minor response was attributed a silter confining unit. Staff stated that, based on the low pumping rates, the "minor" response would be expected at that distance in the SM unit. These issues were left as a difference of professional opinion leading to the discussion of "abnormally high" potentiometric heads.

Staff asked Strata about its conceptual model for the abnormally high potentiometric heads at well PM12 and PM19. Strata verified that its model for the heads was a higher transmissive zone in the upper portion of the ore zone aquifer above the W Shale with the higher head but that zone was not the overlying unit. Staff indicated serious reservations to this model with regard to detecting an excursion during future monitoring, i.e., samples may only come from the higher zone which may not be in direct communication with the ore zone operations. Strata proposed installing a paired well screened only in the lower portion of the ore zone aquifer to wells PM12 and PM19. Staff indicated that based on Strata's conceptual model, this would be a solution but Strata would need to submit details for NRC Staff to review. Strata submitted a response by letter dated October 23, 2015 (ML15296A433).

There were no questions from the public or action items.

The meeting was adjourned at 1:45 p.m.

Attachments:

1. Meeting Announcement and Agenda
2. List of Attendees

PUBLIC MEETING ANNOUNCEMENT

Title: Discuss Pre-Operation Issues for Strata Ross ISR Project

Date(s) and Time(s): October 20, 2015, 1:00 p.m. – 3:00 p.m.

Location: Teleconference

Category: This is a Category 1 meeting. The public is invited to observe this meeting and will have one or more opportunities to communicate with the NRC after the business portion of the meeting but before the meeting is adjourned.

Purpose: Discuss Pre-Operation Issues for Strata Ross ISR Project

Contact: John Saxton
301-415-0697
john.saxton@nrc.gov

Participants: NRC Office of Nuclear Material Safety and Safeguards External Strata Energy, Inc.

Docket No: 040-09091

Comments: Interested members of the public can participate this meeting via teleconference. For additional details, please call the NRC meeting contact(s) listed on the NRC Meeting Schedule or call the NRC's toll-free number, 1-800-368-5642, and ask the operator to be connected to the meeting contact John Saxton or the DUWP Administrative Assistant at 301-415-7319.

PUBLIC MEETING AGENDA

Discuss Pre-Operation Issues for Strata Ross ISR Project

October 20, 2015

1:00 p.m. – 3:00 p.m.

Teleconference

Introductory Remarks - NRC

Purpose of the Call

Introduction of Participants

Topics for Discussion

Public's Opportunity for Questions – Public

Concluding Remarks – NRC

The time of the meeting is local to the jurisdiction where the meeting is being held.

The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If reasonable accommodation is needed to participate in this meeting, or if a meeting notice, transcript, or other information from this meeting is needed in another format (e.g., Braille, large print), please notify the NRC meeting contact. Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

ADAMS Accession Number: ML15275A211

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Link to meeting details: <http://meetings.nrc.gov/pmns/mtg?do=details&Code=20151493>

Commission's Policy Statement on "Enhancing Public Participation in NRC Meetings" 67 Federal Register 36920, May 28, 2002. The policy statement may be found on the NRC website <http://www.nrc.gov/reading-rm/doc-collections/commission/policy/67fr36920.html>



MEETING ATTENDEES
Date: October 20, 2015
Teleconference
1:00 pm to 1:45 pm

Topic: Discuss Strata's Approach to LC 12.8 and 10.15

NAME	AFFILIATION
John Saxton	NRC
David Brown	NRC
Ray Moore*	Strata
Nicholas Roche*	Strata
Mike Griffin*	Strata
Ben Schiffer*	Strata

***Participated via Teleconference**