

September 14, 2009

MEMORANDUM TO: Bill Von Till, Chief  
Uranium Recovery Licensing Branch  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

FROM: Tanya Oxenberg, Project Manager          **RA by S.Cohen for**  
Uranium Recovery Licensing Branch  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

DATE/TIME: September 25, 2009  
10:00 a.m. - 4:00 p.m.

LOCATION: U.S. Nuclear Regulatory Commission  
Two White Flint North, Room T 3-C01  
11545 Rockville Pike  
Rockville, MD 20852

Newly scheduled       Revised       Canceled

APPLICANT: Lost Creek ISR, LLC

DOCKET: 04009068

PURPOSE: Teleconference to Discuss Open Issues Resulting From RAI  
Responses and Draft SER.

PARTICIPANTS:      NRC Offices                                      Applicant  
Stephen Cohen                                                          John Cash, Lost Creek ISR, LLC  
Tanya Oxenberg                                                                 et al.  
Douglas Mandeville  
Elise Striz  
et al.

CONTACT: Tanya Oxenberg, FSME/DWMEP/DURLD  
(301) 415-6142  
[tanya.oxenberg@nrc.gov](mailto:tanya.oxenberg@nrc.gov)

CATEGORY: Category 1. The public is invited to observe this meeting and will have  
opportunities to communicate with the NRC staff after the business  
portion, but before the meeting is adjourned. **Interested members of  
the public can participate in this meeting via a toll-free  
teleconference. For details, please call the NRC meeting contact  
by September 21, 2009.**

ENCLOSURE:           Agenda

NOTE:                   The NRC's Policy Statement "Enhanced Public Participation in NRC Meetings," May 28, 2002, applies to this meeting. The Policy Statement may be found on the NRC Web site, [www.nrc.gov](http://www.nrc.gov), and contains information regarding visitors and security.

ENCLOSURE: Agenda

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**DISTRIBUTION:**

Meeting Attendees  
AKock

JWhitten/RIV  
PBubar

LGersey/RIV  
KMcConnell

PMNS  
ABjornsen

**ML092510062**

Office	DWMEP	DWMEP	DWMEP	DWMEP
Name	TOxenberg	BGarrett	SCohen	SCohen for TOxenberg
Date	9/8/09	9/8/09	9/14/09	9/14/09

**OFFICIAL RECORD COPY**

MEETING AGENDA  
Lost Creek ISR, LLC  
September 25, 2009

MEETING PURPOSE: Teleconference to Discuss Open Issues Resulting From RAI Responses and Draft SER.

MEETING PROCESS:

<u>Time</u>	<u>Topic</u>	<u>Lead</u>
10:00 a.m.	Introductions	All
	Discussion of Open Issues	All
12:00 noon	Lunch (on your own)	
	Discussion of Open Issues (See Attached List)	All
	Summary of Action Items	Moderator
	Public Comment/Questions	Moderator
4:00 p.m.	Adjourn	

Enclosure

**Lost Creek ISR, LLC**  
**Application for a Source Materials License for the**  
**Lost Creek *In Situ* Recovery Facility**  
**List of Open Issues**

1. Applicant did not demonstrate that meteorological data from Lost Soldier is representative of the Lost Creek Permit Area.
2. Applicant did not compare concurrent data from NWS station to demonstrate that data taken for Permit Area is representative of long-term meteorological data.
3. Specify the height at which the data was collected (2 meters or at other heights). Also, no joint frequency distribution data was provided.
4. When was wind data collected? Is mixing height data representative of the Lost Creek site?
5. No calibration or maintenance data for meteorological instruments. No specific recovery data for wind and stability measurements.
6. Effects of water bodies on meteorological measurements, and also threshold information on wind speed and direction instruments.
7. Inconsistencies in the site-specific geologic mapping (isopach, cross-sections, faults).
8. Adequate abandonment procedures for historic borings.
9. UBC or IBC Criterion for Seismology Design.
10. Less than 12 months of radon sampling. Criteria for placement of preoperational radon monitors. Criteria for placement of preoperational air particulate monitors.
11. Vegetation sampling program using radon daughters as a basis.
12. Beef sampling not submitted to NRC yet. No preoperational sampling for game animals.
13. Criteria for placement of preoperational TLDs associated with particulate air samples.
14. No surface soil samples associated with air particulate stations. No subsurface soil samples.
15. Offsite sediment sampling and sampling in BLM stock ponds.
16. Sediment sampling in drainages not submitted to NRC yet.
17. Offsite surface water sampling, BLM Stock ponds, missing dissolved Ra-226 from runoff samples (onsite surface water).
18. Sediment sampling in drainages not submitted to NRC yet.
19. Offsite surface water sampling.
20. Missing dissolved Ra-226 from runoff samples (onsite surface water).

21. Shipment and processing of third party ion exchange resins from other LC satellites or other producers.
22. Instrumentation and controls related to radiation safety monitoring.
23. Baseline groundwater monitoring for storage ponds.
24. Plan view and cross section view of storage pond not consistent grade. Cannot verify freeboard requirement and ability to transfer liquids back and forth in the event of a leak.
25. Chemical compatibility between synthetic liner and pond liquids.
26. Daily vs. weekly leak detection system inspections.
27. Evaluation parameters for leak detection system liquids and groundwater monitoring.
28. Subgrade preparation techniques.
29. Number of storage ponds that will be constructed.
30. Quality assurance plan for soil and liner installation.
31. Reporting of leaks, spills, excursions to NRC
32. Meeting requirements of 20 CFR 1902(e).
33. Submittal of reports to NRC (ALARA, semi annual effluent monitoring, etc.); reporting of leaks, spills, excursions to NRC.
34. Qualifications of RSO designee who will perform daily walk through inspections.
35. Lacking details for radiation safety program content and worker instructions.
36. No justification for urinalysis as only bioassay technique. Frequency of specimen collection and evaluation not specified.
37. No action levels tied to worker dose calculations.
38. No description of how bioassay data is converted to dose.
39. Application needs a discussion of the actions the applicant will take when personnel contamination above background.
40. Applicant does not account for other alpha emitters for personnel contamination.
41. How is beta-gamma contamination for personnel contamination incorporated into HP program?
42. What are contamination levels in restricted areas?
43. Contamination control in parts of plant where work with uranium is not performed is not consistent and does not address other alpha emitters.
44. Release of potentially contaminated items from the facility does not address other alpha emitters.

45. Survey equipment LLDs not sufficient for detecting other alpha emitters.  
No radon effluent monitoring program.
46. Air particulate sampling program insufficient.
47. Criteria for placement of radon monitors.
48. No soil cleanup criteria for uranium and other radionuclides.
49. No soil sampling for Pb-210.
50. Submittal of quality control plan for NRC staff to review
51. Identification of surety mechanism.
52. Groundwater restoration timeframe.