

Telephone Conversation Record

Person Called: Regis Greenwood, RSO

Licensee: American Radiolabeled Chemicals
Maryland Heights, MO

License No: 24-21362-01
Docket No.: 030-20567

Callers: George M. McCann, Senior Health Physicist
NRC Region III, Division of Nuclear Materials Safety
Materials Control, ISFSI, and Decommissioning Branch

Katherine Streit, Health Physicist
NRC Region III, Division of Nuclear Materials Safety
Materials Control, ISFSI, and Decommissioning Branch

Date of Call: September 3 and 11, 2009

SUBJECT: TELEPHONE CONVERSATION RECORD REGARDING AMERICAN
RADIOLABELED CHEMICALS LICENSE AMENDMENT APPLICATION
FOR SITE CHARACTERIZATION

On the above date, American Radiolabeled Chemicals (ARC), the licensee, was contacted to discuss NRC requests for additional information for review of the license amendment request for the Site Characterization Survey license condition provided on August 3, 2009. The requests and information the licensee provided is given below. During the course of the conversation, the licensee committed to provide the procedure for identifying sample locations in the field, provide a written commitment to analyze the adequacy of the number of samples once results are determined, and withdraw Sections 7 and 10 from the application. Additionally, the licensee was asked to reply confirming the adequacy of this conversation record.

During the conversation, the licensee stated they had completed remediation activities to clean up the spill described in the amendment request located in survey unit 3. The licensee stated they removed soil until no more contamination could be seen by a portable survey instrument, resulting in a depth of approximately 1 foot in an area of approximately 10 m². The remediation was conducted via shovel by licensee personnel. Additionally, an outside bobcat was rented to move rocks to aid in the remediation. The bobcat was surveyed prior to being released from the site. Once the remediation was complete, the licensee backfilled the area without taking soil samples at the depth of the remediation. The removed soil is currently stored in a Sealand container on site awaiting disposal. The NRC staff stated that remediation of soil is not authorized by an approved procedure and informed the licensee's RSO that no further remediation should be done without approval to do so via a license amendment. Dr. Gupta was also informed regarding this activity during a subsequent call.

Sample Procedures and Controls

- 1) Since Teledyne-Brown Engineering of Oak Ridge, TN will be utilize for soil analysis, verify that your proposed soil sample procedure will provide the adequate amount and form (i.e. dry, free of debris) of soil for their laboratory procedures.

Licensee Response: Adequate amount and soil type will be collected for Teledyne-Brown Engineering analysis requirements.

- 2) The sampling procedure provided in Appendix E references other sections of the ORAU's procedures for sample labeling and security, chain of custody, and cleaning of sampling tools.

- a) Sample labeling and security procedures are not provided. Describe how the samples will be documented and secured to ensure samples can be coordinated with their locations of origin.

Licensee Response: Referenced sections of ORAU will be followed, which are public documents on the ORAU website.

- b) Describe the chain of custody for shipment of samples to the third party for analysis.

Licensee Response: Referenced sections of ORAU will be followed, which are public documents on the ORAU website.

- c) Cleaning of sampling tools between samples should be completed to ensure minimum cross contamination between samples. Describe how and when tools will be cleaned.

Licensee Response: Sampling tools will be wiped down after each sample and visual dirt will be washed off with water.

- d) Sample procedure 8.1 describes a process for field compositing. Describe if field compositing will be used in this characterization plan.

Licensee Response: Field compositing will not be used.

- e) Appendix E includes attachment titled SP3 for sample preparation. Since samples will be analyzed by a third party, describe how this procedure will be used by ARC.

Licensee Response: This procedure will not be used. Teledyne-Brown will use their procedure for analysis of the results.

- 3) Sample locations are determined by VSP and are provided by maps. Describe how sample locations will be identified in the field to match the VSP given locations. Additionally, describe the controls that will be in place to ensure reproducibility of sample locations and results (i.e. labeling mechanisms of samples and flagging).

Licensee Response: Field sample locations provided in the application will be identified in the field by a scaled map and determined by measuring tape from map origin. Sample locations will be marked for sample relocation by means such as landscaper spray paint. Licensee agreed to submit this response in writing to the NRC for review.

- 4) Have samples already been taken, or will they be taken later.

Licensee Response: Soil samples will be taken after license amendment is approved. Soil samples taken previously have been disposed of.

- 5) Section 17 states Radiation Protection staff professional judgment was used in determining number of samples. Provide justification for the density of samples selected. Since this is a characterization survey, two methods may be used in demonstrating the number of samples. Either provide upfront justification for the number selected or provide an analysis that will be used to demonstrate enough samples were completed after the results are in. However, if post analysis is conducted, provide a commitment to collect more samples if analysis fails to prove enough samples were collected.

Licensee Response: They will provide a written commitment to use MARSSIM guidance provided in COMPASS to analyze the adequacy of the number of samples once sample results are determined.

- 6) Several sections of the report discuss elements that will be used during the analysis and assessment phases. Since the analysis and assessment will be submitted after the characterization is done, the NRC discussed that Sections 7 and 10 could be withdrawn from the application for efficiency.

Additionally, the NRC discussed that the area factors given in Section 7.0 are from Chapter 8 of NUREG 1505. These area factors are presented in the NUREG for illustrative purposes only. The assumptions used in creating these area factors are not applicable to this site. If area factors are used in the analysis and decision making phases, the assumptions used in determining them will need to be addressed.

Licensee Response: The licensee agreed to withdraw Sections 7 and 10 from the application.

If area factors are used during the assessment phase, the method displayed in Chapter 8 of NUREG 1505 will be used, but not the specific area factors.

- 7) Commitment needs to be made to the NRC that these results will be analyzed by ARC and that the analyses will be submitted to the NRC with the results.

Licensee Response: Licensee committed to submitting a commitment that they will provide the NRC with their analysis and any proposed actions after the characterization plan.

End of conversation record.