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Meeting Minutes- NMED DRAFT Comments on Supplemental Investigation Reports (SIRs) for Upper Sandia Canyon Aggregate Area and Three Mile Canyon Aggregate Area

Objectives: Discuss NMED draft comments on SIRs.

Date/Time: October 17, 2016; 3:00 PM

Location: HWB/LANL conference call

Attendees: NMED: Neelam Dhawan, Robert Murphy, Siona Briley, Michael Space,

NMED Contractor: Paige Walton, AQS

LANS/DOE: Cheryl Rodriguez, Ramoncita Massey, David Rhodes, Kent Rich, Joe, Ray,

Minutes Preparer: Robert Murphy

Discussion:

Upper Sandia Canyon Aggregate Area Supplemental Investigation Report

- 1. PAHs:** NMED notes that in some instances the site history provided in the Supplemental Investigation Report (SIR) is insufficient to dismiss polycyclic aromatic hydrocarbons (PAHs) as being completely related to runoff from asphalt roadways and parking lots rather than related to site operations. NMED requests that the Permittees provide additional site history to demonstrate that PAHs are not site related. If additional site history is not available then the Permittees must provide a background PAH data set for comparison to site data.
- 2. Sludge beds and decaying asphalt berms:** NMED notes that the asphalt berms would not be present if not for the presence of the sludge beds and the berms were part of the site design. PAHs at site must be addressed since they impact the overall risk at the site. If PAHs are not addressed in the SIR then they will be an issue when certificate of completion request is made. The Permittees will review guidance for a follow up discussion on the issue.
- 3. VOC Sampling:** NMED notes that the volatile organic compound (VOC) sampling was done under a previous standard operating procedure (SOP) which is no longer accepted by NMED. The data produced using the old SOP may be inaccurate. LANL needs to review the data, and determine if new samples are required; The intent of multi-phase



investigations is that data gaps or errors identified in Phase I of sampling can be corrected in Phase II of the investigation. The Permittees contest that the data presented in the SIRs was collected using an SOP that was approved at the time the sampling was conducted and that the sampling problems (mixing of soil samples prior to containerizing) were confined to MDA B.

4. **Vapor Intrusion Assessment:** NMED notes that the approach the Permittees take to vapor intrusion assessment in the SIRs is an improvement over the approach used in previously submitted investigation reports; however, eliminating non-detects from the assessment results in the data being censored. If the non-detects in the data set are ignored the data is biased high (a conservative approach). This approach may not be appropriate at every site. NMED will review this issue and consider modifying the language in the 2015 NMED Risk Assessment Guidance for Site Investigations and Remediation (SSG).
5. **Characterization of risk under the construction worker scenario:** NMED notes that the Permittees use an invalid line of evidence in the characterization of risk to the construction worker (e.g. the magnitude of change of contaminant concentrations laterally or vertically). Statistically based analytical methods must be used when making site-based decisions.
6. **PAH hotspot at SWMU 03-052(f):** NMED notes that PAHs at a depth of 2 feet (the maximum sampled depth) appear to be a hotspot and additional sampling is required. The Permittees contend that the PAHs are not site related and risk is overestimated because the area is only accessed twice a year for mowing; the default industrial risk scenario is not appropriate because it assumed daily exposure for 8 hours. NMED will review and discuss.
7. **TPH-DRO:** The vertical extent of total petroleum hydrocarbons-diesel range organics (TPH-DRO) is not defined at SWMU 03-056(a). The Permittees indicate that they do not sample for TPH-DRO as rigorously as for other chemicals and will take another look at the data to determine if the TPH-DRO is site related.
8. **Calculating an EPC specific to a hotspot:** The Permittees question if individual sample areas that are hotspots drive the need for remediation or does the risk assessment? NMED requires an exposure point concentration (EPC) to be calculated and a separate risk assessment conducted for hotspot areas that lie within a SWMU or AOC. Also, the hotspot data must be removed from the EPC calculation and risk assessment for the overall SWMU or AOC. The Permittees ask NMED to consider corrective actions complete with controls for SWMU 61-002 as an alternative to remediating the hotspot.

NMED agrees but with the condition that a statement will be included with the COC that residual contamination exists.

- 9. Ecorisk:** NMED requests that Permittees include a statement that ecorisk was conducted using only the data from 0-5 feet and that the guidance requires using data from 0-5 feet for non-burrowing animals and 0-10 feet for burrowing animals. The Permittees agree to address the issue in the Phase II work plan or Phase II investigation report (I am not sure which one they said).

Thremile Canyon Aggregate Area Supplemental Investigation Report

1. Comparison of trivalent chromium SSL to total chromium detections:

The Permittees compare the trivalent chromium SSL to samples analyzed for total chromium in order to make the determination that no further sampling is needed for chromium. Their argument is based on the absence of any site history indicating that hexavalent chromium was used at the sites. NMED states that the trivalent chromium SSL is not appropriate for evaluating nature and extent of contamination because the samples were analyzed for total chromium and so must be compared to the total chromium SSL. The trivalent chromium SSL may only be used for comparison if the site samples are analyzed for trivalent and hexavalent chromium.

- 2. Determining if additional sampling is warranted based on whether or not the applicable SSL/SAL is an order of magnitude above the maximum detection for a given analyte:** NMED requests information on where this approach comes from, including the actual reference and the specific guidance cited in the SIR so that NMED may work with the Permittees to develop the approach as a defensible line of evidence. Because NMED guidance applies to all facilities, NMED cannot agree to this approach without additional consideration of the reference and guidance cited by the Permittees in the SIR. The Permittees believe it to be a reasonable approach that eliminates unnecessary sampling.

- 3. Ecorisk:** The Permittees don't understand why NMED took issue with their approach because the ecorisk was conducted using an established approach they have been using for ten years. The Permittees and NMED agree to consult their own subject matter experts and have another discussion on the issue, particularly about the language in draft comment 9c.

- 4. Number of detections required to calculate a UCL:** The Permittees are calculating UCLs with five or more detections while their SOP dictates four or more. NMED guidance requires a minimum of six detections. Also, the Permittees approach to

calculating UCLs for human and eco risk is inconsistent; some UCLs are calculated using six detections while others five detections. Each group will continue to look at this issue, and NMED will review the guidance and relevant comments in each SIR. The Permittees will send an email to NMED summarizing this discussion and justifying what comments from NMED they feel should be eliminated. We will continue to meet on these issues until we reach a resolution.

Action Items:

Upper Sandia Canyon Aggregate Area SIR

1. Permittees to review guidance regarding PAHs for follow up discussion.
2. NMED to review vapor intrusion assessment guidance and consider revising language in the SSG.
3. NMED to review the need for additional sampling for extent at SWMU 03-052(f)
4. Permittees to review data at SWMU 03-056(a) to determine if TPH-DRO is site related
5. Permittees address issue of ecorisk calculations for burrowing vs non-burrowing animals in Phase II IWP.

Threemile Canyon Aggregate Area SIR

1. Permittees to provide NMED with specific reference and guidance regarding order of magnitude argument. NMED to work on developing argument as a valid line of evidence.
2. NMED and Permittees agree to consult subject matter experts on the approach to ecorisk presented in the SIRs and discuss at a future date.
3. NMED and Permittees to review the guidance and relevant comments in each SIR regarding UCL calculations.
4. Permittees to send email to NMED summarizing today's discussion and justifying what comments from NMED they feel should be eliminated from the SIRs.
5. NMED and Permittees agree to continue to meet on these issues until a resolution is reached.