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February 25, 2021

**ELECTRONICALLY TRANSMITTED**

Ms. Queenie Mungin-Davis  
Army National Guard  
Installations & Environment – Cleanup Branch  
111 S. George Mason Drive  
Arlington, VA 22204

**RE: ADEM Review and Comment:** *Risk Assessment Report*, dated March 15, 2019.  
Mobile OMS-28, Mobile County, Alabama  
DSMOA ID: 535-223-0031

Dear Ms. Mungin-Davis:

The Alabama Department of Environmental Management (ADEM or the Department) has reviewed the Alabama Army National Guard's (ALARNG's) subject document. Based on this review, the Department has determined that the document is incomplete and additional information is required.

Comments regarding the Risk Assessment Report are provided in the attached document. A revised Risk Assessment Report or appropriate revisions addressing all comments should be submitted to the Department for review. Responses may be submitted in the form of a revised document or appropriate revised pages and figures to be inserted in the original submission. If ALARNG chooses to submit revised pages, please date or code each page and figure. For example, **25(r-3/12/21)** would be page 25 revised March 12, 2021.

To facilitate the Department's review, please return a copy of the Department's comments with annotations which identify the revised pages, figures, tables, *etc.* where ALARNG's response to each comment item is recorded.



**Ms. Queenie Mungin-Davis**  
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If you have any questions or concerns regarding this matter, please contact Mr. Colin Mitchell of the Governmental Hazardous Waste Branch at 334-271-7967 or via e-mail at [cjmitchell@adem.alabama.gov](mailto:cjmitchell@adem.alabama.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Wilson". The signature is written in a cursive style with a large initial "J" and "W".

Jason Wilson, Chief  
Governmental Hazardous Waste Branch  
Land Division

JJW/ATM/CJM/md

Attachment

Cc: Brad Curvin, ALARNG  
Melissa Shirley, USACE Mobile

**ATTACHMENT**  
**Risk Assessment Report**  
**Alabama Army National Guard**  
**Organizational Maintenance Shop #28**  
**Mobile, Alabama**

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**General Comments**

- 1) It does not appear that the text or the tables address the calculation of exposure intakes. Please revise the report to include a discussion of the calculation of exposure intakes. Additionally, Tables 10 through 16 appear to be based upon the Risk Assessment Guidance for Superfund (RAGS) Part D tables. However, the last column that is titled “Intake Equation/Model Name” is missing. Please include this column which references the equation and/or model name that was used to calculate the exposure intakes.
- 2) Please include a signed certification page as required by Alabama Risk-Based Corrective Action (ARBCA) Guidance Section 3.6.

**Human Health Risk Assessment (HHRA) Comments**

- 1) **Section 2.1 Data Collection:** The text states that the surface soil interval was chosen to be 0.5 – 1ft. However, the ARBCA considers a surface soil interval to be 0 – 1ft. Please provide rationale for why the surface soil interval was modified.
- 2) **Section 3.5 Toxicity Factors (pg. 3-8):** Please revise the text to include the following statement at the end of the first paragraph:  
  
“The toxicity criteria provided in USEPA’s RSL tables follow this hierarchy and are updated twice per year.”
- 3) **Section 3.5 Toxicity Factors (pg. 3-9):** Please include a reference for the source of the subchronic toxicity factors.
- 4) **Section 3.6.1 Soil and Groundwater Risks and Hazards Based on Direct Contact (pgs. 3-10, 3-11):** Please provide a discussion of the future risks/hazards at Parcels A through F, including receptor, pathway, and magnitude of risk/hazard. This will facilitate discussion of the individual Site-Specific Screening Levels (SSSLs).
- 5) **Section 3.6.2 Groundwater Risks and Hazards Based on Vapor Intrusion (pgs. 3-11, 3.12):** See comment #4 regarding Section 3.6.1.
- 6) **Section 3.7 Development of Site-Specific Screening Levels (pg. 3-12):** This section states that Hazard Quotients (HQs) of 0.1, 1, and 3 were used to develop SSSLs. Please clarify what a target HQ of 3 represents.

- 7) **Section 3.8 Summary – Current Exposure Scenarios (pg. 3-14):** The word “insignificant” is used in several locations to describe risk and hazard levels of different receptors. Please replace the word “insignificant” with “below target risk and hazard levels.”
- 8) **Section 3.8 Summary – Future Exposure Scenarios (pg. 3-15):** Please revise this section to include lists of constituents of concern that are contributing to the excess cancer risk/hazard for each of the receptors.
- 9) **Table 18, Summary of Risks and Hazards:** Please revise the table to include an additional column that includes the constituents of concern that are contributing to the cancer risk/hazard calculations.
- 10) **Appendix A, Tables A-1 through A-4:** Please include the parcel designations on the appropriate tables for the vapor intrusion screening levels (VISLs) that are used.

#### **Screening Level Ecological Risk Assessment (SLERA) Comments**

- 1) **Section 4.2.2.3 Screening Level Risk Calculation (pg. 4-5):** Please define the acronym “RSV” in the acronym list.
- 2) **Section 4.2.2.3 Screening Level Risk Calculation (pg. 4-5):** The text states that five soil sampling locations within Parcel A exhibited tetrachloroethylene (PCE) concentrations in excess of the mammalian toxicity reference value (TRV), and four soil sampling locations did not exceed this TRV. Please revise the last paragraph in Section 4.2.2.3 to identify which soil sample locations did and did not exceed the mammalian TRV.

Also Table 1a and Figure 3 only list eight soil sampling locations for Parcel A. Please clarify the discrepancy between the eight soil sampling locations listed in Table 1a and the nine locations noted in Section 4.2.2.3.

- 3) **Section 4.2.3 Ecological Risk Characterization (pg. 4-5):** The SLERA concludes that an ecological receptor would be unlikely to be adversely affected by the hot spot area of PCE since this 0.015 hectare (ha) area is less than the receptor’s home range. Although this conclusion may possibly be correct, the SLERA should demonstrate that this is the case. Please model exposure to several small mammals (herbivore and insectivore) that have small home ranges such as the deer mouse (0.062 ha) and short-tailed shrew (0.39 ha) based on the mean upper confidence level (UCL) and average PCE concentrations present within Parcel A (as well as adjacent areas such as soil results from Parcel F if needed to comprise an area equal to each receptor’s home range). The estimated exposure doses ingested by these receptors should be compared to a mammalian no-observed-adverse-effect level (NOAEL) and possibly a lowest-observed-adverse-effect level (LOAEL) TRV (if exposure exceeds the NOAEL TRV).