PBOW
TNT B
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MEMORANDUM

TO: LISA Humphreys, USACE PBOW Coordinator, and others

FROM: Julie Weatherington-Rice

RE: Technical Review for the US ACE of the McTech "Draft Interim Soil Removal Action Continuation Soil Excavation and Disposal Plum Brook Ordnance Works – TNT Area B"

DATE: May 25, 2007

Per our current contractual arrangement with USACE which requires both a technical memorandum for each report and an educational explanation to the RAB, this memorandum constitutes the technical review of the McTech "Draft Interim Soil Removal Action Continuation Soil Excavation and Disposal Plum Brook Ordnance Works – TNT Area B". Please forward to those who need to read this technical review.

While this is a massive two volume document; it is extremely well written and easy to follow. This document is basically a summary of the whole history of the soil removal efforts at the TNT-B area which were finished earlier this year. My comments on sections within the body of the text end up being more typographical edits than content driven because this is such a straightforward and complete document.

<u>The Report</u>

1. **1.1 Site Location and Description**

   The second paragraph indicates that "the PBOW is situated mainly on undisturbed forest land". It was my understanding that most of the PBOW site had historically been cropped farm land instead of wood lots. I may be incorrect in that understanding.

2. **1.1.1 Topography**

   This section states that "Elevations at the site range from 625 feet above mean sea level (MSL) to 675 feet above MSL. The elevations at TNT B range from 659 feet above MSL to 682 feet above MSL". The TNT B area is part of the "site" so

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either the "675 feet above MSL" for the site has to be changed or the "682 feet above MSL" for TNT B has to be changed. Please make whichever correction is necessary

3. **1.1.3 Hydrology and Hydrology**

The last sentence in this section. "The depth to ground water varies over the site, but most groundwater elevations range between 5 and 10 feet below the ground surface." This section does not make a distinction between the perched water table in the overlying unconsolidated materials and the shales and the areas where the static water levels in the underlying carbonates have been lowered by dewatering. This text needs a bit of clarification.

4. **3.0 Project Activities Overview**

Second to last paragraph page 12. The text "clean soil from off sight" should be changed to read "clean soil from off site".

5. **3.1 Borrow Area Soil Sampling and Analytical Results**

Second paragraph, third sentence. "Various metals and on volatile" should read "Various metals and one volatile".

6. **3.3.2 Overall Summary of Excavation Activity**

Fourth paragraph. "Refusal was met when ground water or solid slate was encountered". If this is referring to bedrock at this location, it is shale, not slate. However, it could also be referring to a slate floor on concrete in the bottoms of the buildings. Please clarify and/or correct, whichever is appropriate.

7. **5.0 Contaminated Soil and Waste Disposal - Summary Tables for Waste Characterization**

Some of the tables found throughout the text have PQL levels (Practical Quanitation Limit reported by the laboratory) that are higher than the RCRA (Resource Conservation and Recovery Act) limits. I have discussed this issue in earlier reports. It is important to always look at the RCRA limits to make certain that the lab is able to measure to the low level required by that standard. If they are not, then the term ND (Not detected at the laboratory PQL) does NOT mean that the levels are safely below the RCRA levels. They could be higher than the RCRA levels, the lab simply could not, for whatever reason, measure to that lower level. Likewise, there will be levels that are reported that are below the lowest PQL levels that the lab can run. These numbers are approximate numbers, often referred to as "J" values. It would be extremely helpful to the lay reader to provide some text that discusses these issues in this section. It can be confusing when encountered.

8. **Appendix A Site Plan Views & Photographs**

The photographs are extremely helpful in being able to visualize the efforts that were undertaken in the clean up. They did, however, raise a few questions in my mind that I had not previously considered. I noted that there were some truncated pipes and conduits intersected in some of the pictures. Was there any attempt made to insure that these pathways did not transmit contamination beyond the boundaries of the soil pit walls? Additionally, there was a considerable amount of foundation concrete reburied in some of the holes. Did anyone test the concrete to determine if it was clean before it was reburied? If contamination had moved into the concrete, it could then move back up into the "clean area" at a later point in time.

This completes my analysis of this large report. If you have questions and/or comments please feel free to contact me.

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MEMORANDUM

TO: Mark Bohne, PBOW RAB Co-Chair and RAB members

FROM: Julie Weatherington-Rice

RE: Public Educational Review for the RAB of the McTech "Draft Interim Soil Removal Action Continuation Soil Excavation and Disposal Plum Brook Ordnance Works – TNT Area B"

DATE: May 25, 2007

Per our current contractual arrangement with USACE which requires both a technical memorandum for each report and an educational explanation to the RAB, this memorandum constitutes the public educational review of the McTech "Draft Interim Soil Removal Action Continuation Soil Excavation and Disposal Plum Brook Ordnance Works – TNT Area B". Please forward these comments to the other RAB members.

While this is a massive two volume document; it is extremely well written and easy to follow. This document is basically a summary of the whole history of the soil removal efforts at the TNT-B area which were finished earlier this year. My comments on sections within the body of the text end up being more typographical edits than content driven because this is such a straightforward and complete document.

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9. **Appendix B Laboratory Analytical Data**

These are the actual laboratory reporting sheets used to make the summary tables in section 5. On a number of the sheets, in the column labeled "Qual", there is a notation of "J". These are the results that were found by the lab at levels below the PQL levels.

10. **Appendix C Field Activity and Summary Sheets**

This appendix contains all of the daily site reports, health and safety meeting reports, and equipment inspection reports.

11. **Appendix D Waste Manifests (these are actually Volume II)**

This appendix includes all the paperwork for each load of contaminated material that was moved off site, who moved it, where it went, and how much it weighed. All the materials either went to the Erie County Solid Waste Landfill where it was used as daily cover or to a Hazardous Waste Landfill in Wayne County Michigan after it had been composted to stabilize the contaminants.

12. **Appendix E Quality Control Documentation**

This appendix simply lists all the previous editorial reviews of this document.

This completes my analysis of this large report. If you have questions and/or comments please feel free to contact me.