Meeting Minutes

Project:

Tronox (TRX)

Location:

WebEx Meeting

Time and Date:

9:15 AM, Friday, July 30, 2010

In Attendance:

NDEP - Greg Lovato, Shannon Harbour

MGA -Brian Rakvica (for NDEP)

Neptune – Kelly Black, Paul Black (for NDEP)

Kurt Fehling (for NDEP)

Environmental Answers – Keith Bailey (for TRX) Crowley Environmental – Susan Crowley (for TRX)

Northgate - Deni Chambers, Derrick Willis, Scott McLaughlin, Ted

Splitter, Josh Otis, Molly Ammons (for TRX)

Exponent – Reneé Kalmes (for TRX)

Chartis - Julie Diebenow

CC: Jim Najima

- 1. The meeting was held to discuss various issues including background, decontamination processes, various sampling plans, and the dioxins/furans surface sampling.
- 2. TRX submitted the following for discussion prior to the meeting:
- 3. Background issues, the following were discussed:
 - a. TRX submitted the following items for the meeting:
 - i. Memorandum: Arsenic Relative Risk Estimates
 - ii. Background Comparison Results for Metals in RZ-A
 - iii. Memorandum: Analytical Issues Between Test America and Columbia Analytical
 - iv. Technical Memorandum: Background comparison for Metals in Remediation Zones B through E, Compared to Remediation Zone A
 - b. TRX stated that the analytical issues between the Test America and Columbia Analytical digestion methods was still pending. NDEP clarified that the decision to use the RZ-A and Parcels A/B data as the background dataset for the Site has already been determined. NDEP has not yet received a copy of the correct version that contains the prep method description. TRX should additionally try to follow-up on this item.
 - c. NDEP clarified that this issue should be resolved for use in risk assessment.
 - d. NDEP stated that a letter will be issued outlining NDEP's decision to approve a Site-specific remediation goal of 7.2 mg/kg for arsenic at the Site for the establishment of cutlines for excavation. This decision is based on the regionally accepted value for arsenic background.
 - e. NDEP stated that TRX should use RZ-A and Parcels A/B data for the risk assessment evaluations.
 - f. NDEP stated that comments will be provided for the Background Comparison Technical Memo that will be based on inclusion of this information in the risk assessments for the Site.
 - g. NDEP stated that the Arsenic Relative Risk Estimates should be consistent with the Tech Memo for Background. TRX will revise for inclusion in the risk assessments as necessary.
- 4. TRX stated that the leaching technical memorandum will be revised as follows:

- a. Dilution Attenuation Factors (DAF) of one and twenty will be reported in the revised memo.
- b. LSSLs for the Site will be calculated for chemicals that exceed the LBCLs and background.
- c. TRX stated that the comparisons will be submitted by remediation zone, not Site-wide.
- 5. Decontamination, the following were discussed:
 - a. TRX referenced Appendices C and E as containing decontamination procedures for the SWPPP and the Transportation Plan, respectively.
 - b. TRX stated that dry decon will be used during excavation activities.
 - c. TRX stated that the selected Contractors for excavation will provide specific decontamination plans that will be submitted to NDEP for approval.
 - d. TRX stated that the following were addressed in the Removal Action Plan for the Site, which will be the minimum requirements for a Contractor specific decontamination plan.
 - i. Rough locations for ingress and egress to and from the Site, which may be refined for turn radius, etc.
 - ii. Tire washing stations with a steam cleaning provision as necessary.
 - iii. Construction of decon areas.
 - iv. Wash water collection and disposal.
 - e. TRX will propose decon procedures for backhauling as necessary:
 - f. NDEP queried when the contractor-specific Decontamination Plan would be submitted for review and approval since field work is scheduled to commence on August 3, 2010 and excavation is scheduled to commence on August 9, 2010. TRX stated that they will notify NDEP via e-mail with the submittal date for the contractor-specific Decontamination Plan. ACTION ITEM.
- 6. Trade Effluent Ponds (TEF) Berm Sampling Plan, the following were discussed:
 - a. NDEP stated that TRX did not supply justification for the elimination of any broad suite analyses in the revised sampling plan.
 - b. Early next week, TRX proposed to submit an addendum the revised sampling plan with justification for limiting analysis. **ACTION ITEM.**
 - c. TRX stated that the width of the berm in approximately 50 ft at the base and 20 ft across the top.
 - d. TRX stated that the sampling at 1-2 feet into the berm would target the worst case scenario as liquid was retained on both sides of the remaining berm and should have the greatest percolation at the base of the berm.
 - e. TRX also stated that the top of the berm is being sampled as the conveyance flume for the ponds was located there.
 - f. NDEP agreed that the proposed sampling at the base of the berm along with the vertical profile should be sufficient depending on the results of the sampling.
- 7. Manganese Tailings Sampling Plan, the following were discussed:
 - a. TRX clarified that no sampling was conducted of the debris discovered in the tailings pile during removal. The debris was disposed of at APEX Landfill and had been segregated only for loading/weight distribution purposes.
 - b. TRX identified the debris as mostly concrete and some wood from the basement of Unit Building 6, which was the location on manganese operations and if impacted, would be similar to the manganese tailings.

- c. TRX agreed to move sample locations SSA07-05, SSA08-05 and SSA08-08 south so that they are located adjacent to the former cooling tower foundation.
- d. TRX agreed to add chromium VI to the sampling analytical list.
- e. TRX stated that the cooling tower foundation is a U-shaped concrete box $\sim 1,700$ feet long and ~ 10 feet wide with an open top.
- f. TRX indicated that the worst-case scenario results for the cooling tower are expected to be along the length of the cooling tower.
- g. NDEP requested that the historic sampling locations designated with "MN" be removed from Figure 1 of the sampling plan since they were composite sampling locations.
- h. NDEP requested that the data for the boring samples shown on Figure 1 be submitted as they were not included in the submitted sampling plan.
- i. TRX indicated that errata to the sampling plan will be submitted to NDEP by August 4, 2010. ACTION ITEM.
- 8. Dioxins/furans surface sampling results, the following were discussed:
 - a. TRX stated that all dioxins/furans TEQ surface sampling data has been received and presented figures with the results for RZ-B, RZ-C, and RZ-D.
 - b. Generally, in RZ-B and RZ-C, the dioxins/furans TEQ results were lower in the surface samples that the 0.5-2 fbgs samples. Photolytic degradation was presented as a possible explanation for these unexpected results.
 - c. TRX proposed additional sampling to refine excavation limits necessitated by surface sampling results.
 - d. TRX will submit these results and corresponding figures by Monday August 2, 2010.

 ACTION ITEM.
 - e. NDEP will include the response to the results and Figure for RZ-D along with the response for RZ-D Excavation Plan that is currently in review by NDEP. NDEP will respond to the other RZ areas separately.
- 9. Hazardous Waste Landfill Waste Profiling Plan, the following were discussed:
 - a. NDEP will respond to this sampling plan so that TRX may move forward with waste profiling sampling. ACTION ITEM.
 - b. TRX stated that the drill rig will be on-Site next week for other sampling and will be used for this sampling as well if NDEP's response is received in time.
- 10. TRX reported the following on remediation schedule status:
 - a. Las Vegas Paving will perform the following "initial" work commencing August 3, 2010:
 - i. SWPPP preparation
 - ii. Haul roads
 - iii. Unit Buildings 1 and 2 basement debris removal (scheduled to commence on August 9, 2010)
 - iv. Asbestos impacted soil removal in RZ-D
 - v. TRX may authorize additional tasks as needed
 - b. TRX has sent bid packages out for RZ-B and RZ-D and the Site walks have been completed.
 - c. TRX stated that excavation will first proceed in areas RZ-B and RZ-D with the polygons that have determined limits. Those polygons that have pending results in these areas will be scheduled after the known polygons have been completed to prevent excavation delays.

DRAFT

- d. TRX stated that the pending polygons will still be marked in the field with current boundaries but that the contractor will be instructed that changes may be forthcoming.
- e. NDEP stated that dry decon and tire washing may not be sufficient for decontamination when roads and excavation areas will be wetted down for dust control.
- f. NDEP cautioned TRX that maintenance of the trackout areas will probably be an ongoing operation.
- g. NDEP agreed that MGA and Northgate could talk about lessons learned at other large scale excavation projects to potentially eliminate similar problems from this project.
- h. TRX requested that the deadlines for submittal of RZ-C and RZ-E revised Excavation Plans be postponed. TRX stated that the requested postponement of these plans will not delay excavation in these areas based on the current schedule. NDEP requested that TRX make this extension request in writing and include discussion on the potential impact to the schedule. NDEP will review and respond to this request once it is received.
- i. NDEP and TRX briefly discussed the establishment of new Milestones for the Site since the last current Milestone will be completed soon.
- 11. TRX stated that another meeting may need to be scheduled to discuss RZ-E (Beta Ditch).
 - a. TRX stated that Chartis claims that previous investigations by others indicated that contamination only penetrated a few inches past visual staining.
 - b. NDEP stated that to date, no data has been presented to NDEP from this investigation.
 - c. NDEP also stated that the visual characteristics of the staining also indicated different severities of impact.
 - d. TRX may want to discuss how this could affect the proposed and approved additional transect sampling in RZ-E.
- 12. NDEP and TRX scheduled the next weekly conference call for August 5, 2010 at 8:30 AM.