

Meeting Minutes

Project: Tronox (TRX)
Location: NDEP – Las Vegas Office
Time and Date: 9:30 AM, May 15, 2008
In Attendance: NDEP – Brian Rakvica, Shannon Harbour
Tronox – Susan Crowley
Environmental Answers – Keith Bailey (for TRX)
BEC – Ranajit Sahu
ERM – Mark Jones (for BEC)
AIG – Cindy Hunter, Joseph Guerriero, Eric McCabe

CC: Jim Najima, Paul Black, Teri Copeland

1. The meeting was held to discuss investigation results for Parcels C, D, F, G, and H.
2. TRX explained that Basic Management Incorporated (BMI) was established to mainly manage the utilities and other complex-wide issues. BMI was comprised of the following members: Kerr-McGee (currently TRX, 2/7), Stauffer (2/7), TIMET (2/7), and Chem Star (1/7). BMI has evolved into roles including land remediation and sale.
3. Parcels C, D, F, G, and H are parcels with near-term sale potential. As done previously with the Treco property and TRX Parcels A & B, the top 10 feet of subsurface soil were sampled as proposed in the Phase II Investigation Sampling Analysis Plans (SAPs) for each parcel.
4. TRX stated that they will likely retain groundwater and vapor intrusion liability for existing conditions; however, the new owners would be responsible for any soil characterization or remediation if depths greater than 10 feet below ground surface (fbgs) were disturbed. TRX stated that the existing conditions documented at the time of any no further action determination (NFAD) could serve as a baseline for future owners.
5. TRX is currently investigating site-wide soil gas for vapor intrusion.
6. TRX stated that Parcels A, B, C, D, and the southern portion of H are primarily insured by an AIG insurance policy with BMI for soils and an AIG insurance policy with TRX for groundwater and vapor intrusion (and secondarily for soils). Parcels F, G and the remaining portions of H are insured by only the AIG TRX policy for both soil and groundwater.
7. BEC stated that the shallow soil (0 – 10 fbgs) investigations for Parcels C, D, F, G, and H have been completed and that the data have been validated and subsequently approved by the NDEP.
8. TRX indicated that the 0 – 10 fbgs interval was chosen to account for the depth of utility trenches.
9. BEC provided maps of each parcel and corresponding tables with a summary of the results at each parcel.
10. BEC noted that the smaller (more conservative) value of the two (indoor vs. outdoor) EPA Region VI MSSSLs for Workers were selected for the summary tables.
11. BEC stated that the EPA Region IX PRGs were used as screening levels in the summary tables. These values will be changed to EPA Region VI MSSSL values prior to the submittal to the NDEP. **ACTION ITEM**
12. BEC stated that the background dataset used for comparison on the tables was the combined BMI and TIMET background datasets that have been approved for site-wide use by the NDEP.
13. Parcel A/B, NFA issued.

14. Parcel C/D,

- a. BEC stated that only asbestos, arsenic, and dioxin were detected above screening levels.
- b. Asbestos, discussion as follows:
 - i. NDEP has stated in the past that leaving asbestos contamination in place was not acceptable and that other remedies suggested in the past besides excavation would result in additional future use restrictions.
 - ii. BEC stated the risk driver was the construction worker and maintenance worker.
 - iii. NDEP stated that it would not be acceptable to leave the asbestos contamination in place if development was not scheduled (i.e. that remediation of the asbestos would need to be conducted prior to the NDEP reviewing a NFAD request due to the possibility of wind blown exposure).
 - iv. BEC stated that sample TSB-DR-04 (amphibole detection) was located within a ditch. Excavation would be proposed along the ditch only and not the polygon method. BEC will propose additional samples be collected along the ditch to determine the extent of excavation. BEC stated that this procedure would incorporate the CSM into the remediation process. **ACTION ITEM**
 - v. BEC presented two potential areas of excavation for each detection of asbestos: polygon method (used in Parcels A/B remediation) and Kriging method. BEC stated that both methods seem valid. The Kriging method resulted in less excavation being required and was based on the concentration of the detection. The polygon method predicts approximately 4 acres to be remediated (approximately 3,200 cu yd based on a 6 inch depth). NDEP does not concur with the Kriging method.
 - vi. BEC and NDEP stated that the source of the asbestos is assumed to be from historical use and disposal, not from current operations/disposal practices.
 - vii. NDEP stated that the remediation plan should be submitted after results of the step-out samples have been evaluated and the excavation areas have been determined.
- c. Arsenic, BEC stated that arsenic was demonstrated to be within the range of background after statistical analysis.
- d. Dioxin, discussion as follows:
 - i. BEC reported a dioxin concentration in excess of 1,500 ppt TEQ on the eastern side of Parcel C, TSB-CR-07.
 - ii. NDEP requested the TEQ concentrations of dioxin for any other detections but BEC did not have the information available to the time. This topic was deferred until NDEP could review the data.
 - iii. BEC stated that they will be proposing a 50 ft by 50 ft excavation centered on TSB-CR-07.
 - iv. BEC stated that the sample appears to be from a localized burn site, this CSM approach is the purported justification for the limits of excavation.
- e. BEC stated that soil has been stockpiled on top of Parcel C. This complicates the removal of the dioxin and southern asbestos areas. BEC plans to remove the stockpiled material to just above pre-deposition elevations (based on GPS topography) and then excavate contaminated areas.

15. Parcel E, TRX stated that the shape/area of Parcel E (location of a portion of POSSM groundwater treatment system) may change in the future.

16. Parcel F, discussion as follows:

- a. BEC stated that asbestos, PCBs, and PAHs were detected above screening levels.

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- b. BEC stated that PAHs risk driver at TSB-FR-02.
 - c. BEC and TRX noted that approximately 5 to 10 ft of fill will be required to bring this parcel to grade for construction.
 - d. BEC inquired about the possibility of leaving the detected impacts in place under the fill cover. NDEP stated that the answer was likely “no, impacts could not be left in place” but NDEP will check with higher management for confirmation. **ACTION ITEM.**
17. Parcel G, discussion as follows:
- a. TRX stated that the building and land to the north (extending to the existing road) has been added to Parcel G.
 - b. BEC stated that two additional samples will be collected one from the east and west sides of the building.
 - c. TRX stated that south of the building there is a former stormwater collection basin. TRX and Stauffer flows would collect in this basin as the outlet pipe limited flow. Later, the flows were redirected away from this basin.
 - d. BEC stated that only benzo(a)pyrene and asbestos were detected above screening levels.
 - e. NDEP indicated that the benzo(a)pyrene detection at TRB-GJ-06 may not have to be remediated, however, NDEP needs to consider this. TRX indicated that this sampling point was located on a high point not a low point. **ACTION ITEM**
18. Parcel H, discussion as follows:
- a. BEC stated that radionuclides were detected slightly above background levels and presented comparative statistics (box and whisker plots). TRX and BEC believe that the associated laboratory error accounts for the elevated amount and that analytical sensitivity should be considered in the screening process.
 - b. TRX indicated that only one of several radionuclides in each sample was elevated and that the elevated radionuclide was different for each sample.
 - c. TRX stated that if these samples are determined to be within the background range, they should be added to the background dataset.
 - d. It was noted that these samples appear to be statistically significant but practically insignificant (in terms of activity differences).
 - e. NDEP stated that NDEP, TRX, and BEC should continue this discussion at a later date with other parties (Neptune). **ACTION ITEM**
19. Parcel K, TRX indicated that this Parcel is the old Koch Asphalt area and that a Phase I is currently being drafted and will be submitted to the NDEP sometime in the future.
20. NDEP indicated that the secular equilibrium software was still in development.
21. Deep samples, discussion as follows:
- a. TRX stated that this is part of the site-wide soil investigation and that 6 borings are proposed in the parcels: 1 – east of Parcel C, 3 – in Parcel F, and 2 – in Parcel G.
 - b. NDEP stated that one boring in the eastern parcel adjacent to Parcel C would not adequately characterize conditions for the northern parcels. TRX stated that this boring was to characterize the deeper soils in the vicinity of the boring not the northern parcels. BEC and TRX decided that this boring would be proposed as an additional shallow (0 – 10 fbs) boring. TRX understands that this would result in the 0 -10 fbs restriction as was completed for Parcels A/B.
22. BRC will send a supplemental sampling plan by e-mail for the additional borings. **ACTION ITEM.**

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23. NDEP noted that leaching should be addressed in the final document (i.e. is leaching driving any remediation?).
24. TRX indicated that the template for the final documents for these parcels will be the same as the revised A/B Technical Memorandum that was approved by NDEP. NDEP indicated that this will facilitate review of the documents.
25. NDEP also stated that the Technical Memorandums' review times will be commensurate with the documents level of compliance with the NDEP's previous comments. It was noted that data usability needs significant consideration.
26. It was noted that the priority of these parcels is alphabetical. A combined technical memo for Parcels C and D will likely be sent to NDEP, followed by separate memos for parcels F, G, and H.