



STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor
Allen Biaggi, Director
Leo M. Drozdoff, P.E., Administrator

July 27, 2010

Matt Paque
Tronox LLC
PO BOX 268859
Oklahoma City, OK 73134

Re: **Tronox LLC (TRX)**
NDEP Facility ID #H-000539
Nevada Division of Environmental Protection (NDEP) Response to:
*Excavation Plan for Phase B Soil Remediation of RZ-E, Addendum to the Removal Action
Work Plan, Tronox LLC, Henderson, Nevada*
Dated: July 13, 2010

Dear Mr. Paque,

The NDEP has received and reviewed TRX's above-identified Deliverable and provides comments in Attachment A. A revised Deliverable should be submitted **by August 14, 2010** based on the comments found in Attachment A. TRX should additionally provide an annotated response-to-comments letter as part of the revised Deliverable.

Please contact the undersigned with any questions at sharbour@ndep.nv.gov or 775-687-9332.

Sincerely,

Shannon Harbour, P.E.
Staff Engineer III
Bureau of Corrective Actions
Special Projects Branch
NDEP-Carson City Office
Fax: 775-687-8335

SH:sh

EC: Jim Najima, Bureau of Corrective Actions, NDEP
Greg Lovato, Bureau of Corrective Actions, NDEP
Mike Skromyda, Tronox LLC
Michael J. Foster, Tronox LLC
Keith Bailey, Environmental Answers LLC
Susan Crowley, Tronox LLC (Contractor)
Deni Chambers, Northgate Environmental
Brian Rakvica, McGinley and Associates



Barry Conaty, Holland & Hart LLP
Brenda Pohlmann, City of Henderson
Mitch Kaplan, U.S. Environmental Protection Agency, Region 9
Ebrahim Juma, Planning Manager, Air Quality and Environmental Management
Joe McGinley, McGinley & Associates
Ranjit Sahu, BRC
Rick Kellogg, BRC
Mark Paris, Landwell
Craig Wilkinson, TIMET
Kirk Stowers, Broadbent & Associates
Victoria Tyson, Tyson Contracting
George Crouse, Syngenta Crop Protection, Inc.
Nick Pogoncheff, PES Environmental
Lee Erickson, Stauffer Management Company
Michael Bellotti, Olin Corporation
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Joe Kelly, Montrose Chemical Corporation of CA
Jeff Gibson, AMPAC
Larry Cummings, AMPAC
Teri Copeland, Neptune and Company, Inc.
Kurt Fehling, The Fehling Group, LLC
Joanne Otani

CC: Ebrahim Juma, Planning Manager, Air Quality and Environmental Management
Susan Crowley, C/O Tronox LLC, PO Box 55, Henderson, NV 89009
Lee Erickson, Stauffer Management Company

Attachment A

1. General comment, TRX states throughout this Deliverable that excavation will not be conducted in excess of 10 feet below ground surface (fbgs). NDEP does not believe that this statement meets the intention of the December 14, 2010 Order issued by NDEP to TRX. The Deliverable should be revised to address source control and leaching. Please note that the following comments do not address each instance this topic is mentioned in the Deliverable.
2. General comment, TRX should label the proposed sampling locations and include the names for the sampling locations throughout the document, especially in Figure 1.
3. Section 1.0, page 1, NDEP provides the following comments:
 - a. 2nd paragraph, TRX notes that this Deliverable does not address the soil-to-groundwater leaching pathway. As NDEP has previously stated to TRX, this represents a schedule concern for the NDEP.
 - b. 3rd paragraph, NDEP does not agree with TRX's definition of contaminated soil per the above-comments.
4. Section 1.1, page 2, 2nd paragraph, NDEP notes that gravel filled bags are not a blockade to surface water transport. It is noted that additional Best Management Practices (BMPs) may be needed during the implementation of the scope or work to limit the transport of contaminants.
5. Section 1.2, pages 2-4, NDEP provides the following comments:
 - a. 1st paragraph, page 2, TRX states that that the Beta Ditch historically terminated at the AP Maintenance Shop are refers to Figure 1. NDEP did not observe this noted on Figure 1. Please revise one of the included Figures to note this area. Revise the text as necessary.
 - b. 1st paragraph, page 3, TRX provides rationale for limiting the excavation depth for a portion of the Beta Ditch; however, TRX proposes a 10 fbgs cutline for the entire RZ-E area. TRX also did not provide Conceptual Site Model (CSM) rationale for the excavation limits. Please clarify.
 - c. 2nd paragraph, page 3, NDEP provides the following comments:
 - i. Please provide additional discussion for the inclusion of 25 feet from both sides of the ditch sidewalls as the boundary for this area. CSM rationale and sampling results should be used in the discussion of establishing a width for the excavation area for RZ-E.
 - ii. Please provide the rationale for additional sampling transects including the rationale for the location of each transect. NDEP suggests that if TRX proceeds with the transect sampling that the transects are located in areas of historic overflow and areas with apparent/potential flow restrictions.
 - iii. TRX should note that any delay in the remediation schedule to accommodate any sampling will not be acceptable to NDEP.
 - d. 4th paragraph, page 3, TRX has stated in various meetings that the Beta Ditch might be used as part of a site-wide storm water retention basin in the future. Please discuss if this is still intended and if so, then backfilling may not be necessary or limited based on the data available for risk assessment. TRX should note that this is not an issue that should delay the implementation of this plan; however, this issue needs to be resolved prior to initiating backfilling.

6. Section 2.0, page 5, NDEP provides the following comments:
 - a. NDEP does not concur with TRX's proposal to sample for only the chemicals that are driving remediation at a particular sampling location. TRX should also consider adjacent sampling locations and any chemicals associated with those sampling locations. Please clarify what chemicals are being sampled for the additional samples. TRX should note that restrictions to excavation limits will not be considered by NDEP unless the necessary chemical drivers are reported.
 - b. TRX proposes additional samples for the refinement of the excavation area cutlines; however only one excavation area that does not consider the analytical data has been presented. Please clarify TRX's intentions for RZ-E excavation.
 - c. Additionally, TRX should note that NDEP does not find it acceptable for the additional sampling results to delay excavation of this area including the submittal of the final excavation plan for RZ-E.
7. Section 3.0, page 7, NDEP does not necessarily agree that the listed excavation boundary constraint is a practical constraint, please clarify using CSM rationale why this is considered a valid constraint.
8. Section 3.1, page 7, as noted above, NDEP does not agree with TRX's proposal to sample for only the chemicals that are driving remediation for a particular sampling location. Please see NDEP's above-comments for further guidance.
9. Section 3.3, please clarify the construction of the equalization tank area including the existence of Site soils within the area.
10. Section 4.2, page 8, in regards to any monitoring wells within RZ-E that will be affected by excavation, TRX should propose (with justification) in this Deliverable whether to maintain these wells or abandon them with or without replacement.
11. Table 1, please clarify the following:
 - a. If the listed metric for benzo(a)pyrene (BaP) is for BaP TEQs or BaP.
 - b. If this Table represents the analyte list for the additional sampling.
12. Figure 1, NDEP provides the following comments:
 - a. It appears that data and sampling locations from RZ-C and RZ-D adjacent and in the vicinity of RZ-E are missing. Please include the data from these sampling locations including but not limited to RSAL8, RSAM2, RSAM3, RSAM8, RSAN7, SA62, SA69, SA 67, SA71, SA76, SA100, SA144, and SA157.
 - b. NDEP provides the following comments only if TRX decides to complete the transect verification sampling:
 - i. Transect sampling should target areas of historic overflow or apparent/potential flow restriction.
 - ii. A transect could be added near sample location SA-175 because of contamination profiles in that area.
 - iii. A transect could be added near sample location SA-128 because of intersection of two drainages and the potential for historical ditch overflow.
13. Appendix A, it appears that these tables do not include data deeper than 10 fbs. Please revise the tables to include all available data for RZ-E that includes data from other RZs as necessary to support this Deliverable.