

## STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Administrator

March 19, 2012

Jay A. Steinberg Nevada Environmental Response Trust 35 East Wacker Drive, Suite 1550 Chicago, IL 60601

Re: Tronox LLC (TRX) Facility

Nevada Environmental Response Trust (Trust) Property

NDEP Facility ID #H-000539

Nevada Division of Environmental Protection (NDEP) Response to:

Site Management Plan (SMP), Nevada Environmental Response Trust Site, Clark

County, Nevada

Dated: December 2011

Dear Mr. Steinberg,

The NDEP has received and reviewed the Trust's above-identified Deliverable and provides comments in Attachment A. A revised Deliverable should be submitted by April 10, 2012 based on the comments found in Attachment A. The Trust 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.

Supervisor, Special Projects Branch

**Bureau of Corrective Actions** 

NDEP-Carson City Office

Fax: 775-687-8335

SH:sh

EC: Greg Lovato, Bureau of Corrective Actions, NDEP

Carolyn Tanner, AG's Office

Cassandra Joseph, AG's Office

Brenda Pohlmann, City of Henderson

Stephen Tyahla, U.S. Environmental Protection Agency, Region 9

Charles K. Hauser, Esq., Southern Nevada Water Authority

Ron Zegers, Southern Nevada Water Authority

Peggy Reofer, Southern Nevada Water Authority





Marcia Scully, Metropolitan Water District of Southern California Mickey Chaudhuri, Metropolitan Water District of Southern California John R. McNeill, Central Arizona Water Conservation District Andrew Steinberg, Nevada Environmental Response Trust Tanya O'Neill, Foley & Lardner LLP Alian Delorme, ENVIRON Mark Travers, ENVIRON Barry Conaty, Holland & Hart LLP Ranajit Sahu, BRC Rick Kellogg, BRC Lee Farris, 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 Chuck Elmendorf, Stauffer Management Company LLC Curt Richards, Olin Corporation Paul Sundberg, Montrose Chemical Corporation Joe Kelly, Montrose Chemical Corporation of CA Jeff Gibson, AMPAC Ebrahim Juma, Clean Water Team Joe Leedy, Clean Water Team Kathryn Hoffmann, Clean Water Team Brian Rakvica, McGinley & Associates

Joe McGinley, McGinley & Associates

## Attachment A

- 1. Section 1.5, page 3, the Trust should reference that Kerr McGee Chemical LLC was party to several agreements in addition to Tronox.
- 2. Section 2.1.2, page 5, provide information about the west end of the Beta Ditch.
- 3. Section 3.1, page 8, 1<sup>st</sup> paragraph under bulleted list, remove "(but not NDEP)" from the text.
- 4. Section 3.4.1, page 10, revise the text to reflect that the Trust will propose a schedule for NDEP approval.
- 5. Section 4.2.2, page 12, 2<sup>nd</sup> bullet, revise the text so both the analyses for lead and asbestos are required.
- 6. Section 4.3.5, page 17, this section references analyses in Section 4.3.3; however, no analyses are listed in Section 4.3.3. The reference to Section 4.3.3 should be removed.
- 7. Section 4.5, page 19, 4<sup>th</sup> bullet, please include a bullet for data validation.
- 8. Section 5.2, page 21, the Trust should indicate that all dewatering activities should be properly permitted.
- 9. Section 5.3, page 21, the Trust should consider including a specified distance from any groundwater treatment system components instead of "in the vicinity" for the notification and approval requirement.
- 10. Section 5.3.3, page 22, the NDEP provides the following comments:
  - a. 1<sup>st</sup> paragraph, 1<sup>st</sup> sentence, please revise text to indicate that work plans for planned shutdowns of the groundwater treatment system should be "submitted to", not "developed and approved by" NDEP, the Trust, and Veolia for approval.
  - b. 2<sup>nd</sup> paragraph, last sentence, please specify that it is the Site Occupant that must provide a written explanation
- 11. Section 5.3.5, as stated above, the Trust should consider specifying a distance from any groundwater treatment system components for the requirements of this section.
- 12. Table 1, footnote f, please reference the document approved by the NDEP.
- 13. Table 2, NDEP provides the following comments:
  - a. Category 1, Definition of Category, the term ECA should be included.
  - b. Confirmation Sampling column, the 3<sup>rd</sup> bullet from Section 4.3.5 should be included in this column.
- 14. Table 5, NDEP provides the following comments:
  - a. NDEP contact information: Primary contact: Shannon Harbour, Supervisor, Special Projects Branch; Secondary contact: Greg Lovato, Bureau Chief (should also have Carson City address).
  - b. Tronox LLC, consider labeling Tronox as a "Site Occupant" or "Lessee".
  - c. Veolia Water of North America contact information:
    - i. Provide a primary and secondary contact.
    - ii. Consider labeling Veolia as the Groundwater Treatment System (GWTS) Contractor.
- 15. Figure 4, please indicate which parcels have been sold and are no longer part of the Trust property.
- 16. Appendices, general comment, the following items should be added to the Site Management Plan as electronic Appendices:
  - a. NERT should add the Letter of Understanding (LOU) area packets that were used to create and were included in the Phase B Sampling and Analysis Plans.

- b. A table in an executable format of all analytical data collected from the Phase A and Phase B Investigations as well as data collected from samples collected during the excavation activities. Please note that this table should be included in the periodic update of this Deliverable.
- 17. Appendix A, Summary of Excavation Control Areas (ECAs), NDEP provides the following comments:
  - a. General comment, please briefly discuss the sampling conducted and results that are associated with each ECA in each ECA section of this Appendix. For example, indicate which, if any, of the samples relevant to ECA C5 were collected from the observed discolored soils.
  - b. Title, please modify the title to indicate that there are ECAs that were established because they are potential source areas that have been uncharacterized.
  - c. Introduction, page 1, please note that the Site was also previously owned and operated by Kerr-McGee Chemical LLC.
  - d. Section 2.1, page 2, NDEP provides the following comments:
    - i. 1<sup>st</sup> paragraph, arsenic does not have a site-specific BCL. Please revise text as necessary.
    - ii. 2<sup>nd</sup> paragraph, please revise text so that the "the NDEP worker BCLs, or modified risk-based goals" are "approved" by NDEP rather than "agreed upon"
  - e. Section 2.4, pages 3-4, please replace "Assumptions" with "Decision Rules" and revise the text to clarify that the listed items were the decision rules used to determine the ECA boundaries during and post-excavation.
  - f. Section 2.6.1, pages 4-5, this Deliverable states that the soil under each of the Unit Buildings received "limited" characterization. NDEP is not currently aware of any characterization that has occurred on the soils underneath any of the Unit Buildings. Please revise the text as necessary.
  - g. Section 2.7.4, page 7, this section should note that while excavation polygons RX-C-06 and RX-C-09B extend under the concrete foundation, the soil under the foundation has not been characterized.
  - h. Sections 2.7.12 and 2.7.15, NERT should consider merging these two ECAs together. Please revise text, tables, and figures as necessary.
  - i. Section 2.8.10, pages 13-14, NERT should review the data for this ECA. NDEP noted that the results reported for sample SSAM02-02, which is located in ECA E1, were less than the respective BCLs for the contaminants reported. Please determine whether ECA E1 should be removed and revise the text, tables, and figures as necessary.
  - j. Section 2.11, page 14, please note in this section that all demarcations will be included in the Comments column of Table 1.
  - k. Table 1, NDEP provides the following comments:
    - i. General comment, Table 1 should be modified as follows:
      - 1. Include a column for Relevant LOU Areas that references the new Appendix for the LOU Packets.
      - 2. Create two separate columns for Known Chemicals of Concern and Minimum Required Analyses and include the following:
        - a. List the analytical suite and method number in the Minimum Required Analyses column or include a reference Table 4 of the main document.
        - b. Revise "Chemicals of Concern" to "Chemicals of Potential Concern"

- 3. Replace any notations of "dioxins" with "dioxins/furans".
- 4. Remove TPH from analyte list and replace with VOCs and SVOCs as necessary.
- 5. Remove radionuclides from the analyte list unless there is a specific rationale to include them.
- 6. If discolored soil was left in an ECA, then the soil should be noted as uncharacterized and the full analyte list should be required unless the discolored soil was characterized during excavation activities that demonstrates that a shortened list of analytes would be appropriate.
- 7. Include notation of discolored soil in all ECAs in the ECA Description column for all ECA's that have remaining discolored soils.
- 8. Include a comment that an ECA or a portion of an ECA has been uncharacterized in the Comments column.
- 9. Include a comment regarding any demarcation located within an ECA in the Comments column.
- ii. NDEP provides the following comments for each listed ECA:
  - 1. B1,
    - a. ECA Area Description column, note that this ECA includes the soils underlying the Unit Buildings.
    - b. Comments column, note that the soils under the Unit Buildings are uncharacterized.
  - 2. B2, Expected Depth(s) of Contamination, please list each depth to each corresponding polygon.
  - 3. B3, Engineering Controls in Place, please note that the asphalt only partially covers this ECA.
  - 4. B6 and B7, NERT should consider merging these two ECAs into one.
  - 5. C4, since the area under the foundation is in the vicinity of know contamination and the area under the foundation has not been characterized, the entire area under the foundation should be included in this ECA and should be noted as uncharacterized in the Comments column.
  - 6. C8, Known Chemicals of Concern/Minimum Required Analyses, add hexavalent chromium and ammonia to these lists.
  - 7. C9, Known Chemicals of Concern/Minimum Required Analyses, add dioxins/furans and hexachlorobenzene (HCB) to these lists.
  - 8. C10, Known Chemicals of Concern/Minimum Required Analyses, add perchlorate to these lists.
  - 9. C11, Known Chemicals of Concern/Minimum Required Analyses, add VOCs to these lists.
  - 10. C12, please note whether any COPCs are associated with the Steam Plant.
  - 11. C12 and C15, NERT should consider combining these ECAs into one.
  - 12. C13, Known Chemicals of Concern/Minimum Required Analyses, add metals, hexavalent chromium, wet chemistry, and perchlorate to these lists.
  - C16, Known Chemicals of Concern/Minimum Required Analyses, add metals, hexavalent chromium, wet chemistry, perchlorate, ammonia, and HCB to these lists.

## 14. C18,

- a. Please note whether any COPCs are associated with the Leach Plant Equipment and Facilities.
- b. Known Chemicals of Concern/Minimum Required Analyses, add ammonia to these lists.
- 15. D1, Known Chemicals of Concern/Minimum Required Analyses, include the full analyte list since this area is in the Former Trade Effluent Pond LOU and is predominately uncharacterized.
- 16. D2, Engineering Controls in Place, please indicate the anticipated completion of the asphaltic coating or chip seal.
- 17. D6, Known Chemicals of Concern/Minimum Required Analyses, add hexavalent chromium, ammonia, and metals to these lists.
- 18. D9, ECA Area Description, Rationale for Proposing ECA, Engineering Controls in Place, Expected Depth(s) of Contamination, and Comments columns, please revise these entries for consistency regarding depth.
- 19. E1, NERT should consider removing this ECA based on the results of sample SSAM2-02
- 20. E2, Known Chemicals of Concern/Minimum Required Analyses, consider removing cyanide, TPH, PCBs, and radionuclides from these lists as no detections of these chemicals were noted in the sampling results relevant to this ECA.
- 21. E3, Known Chemicals of Concern/Minimum Required Analyses, consider removing cyanide and radionuclides from these lists as no detections of these chemicals were noted in the sampling results relevant to this ECA.
- 1. Figures, please additionally provide the following sets of Figures:
  - i. ECA maps without the Remediation Polygons.
  - ii. Maps showing individual or smaller groups of ECAs for clarity as necessary for legibility.
- 18. Appendix C, NDEP provides the following comments:
  - a. General comment, revise "COCs" to "COPCs".
  - b. General comment, please note which parties (NDEP, Trust, GWTS Contractor) require notification in each checklist item.
  - c. General comment, please ensure that all items that require notification or documentations prior to any action are clearly noted as such.
  - d. Activities Section, Soil, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> items, references to Tables or Sections of the main document, please add "of main document" for clarity.
  - e. Written Documentation Section, Soil, 3<sup>rd</sup> item, Table 4 of the main document should also be referenced for analytical requirements.