

## 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 11, 2011

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:

Environmental Risk Management Plan

Dated: December 20, 2010

Dear Mr. Steinberg,

The NDEP has received TRX's above-identified Deliverable. As previously discussed with the Trust, NDEP has reviewed this Deliverable and provides comments to the Trust in Attachment A. A revised Deliverable should be submitted by March 31, 2011 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.

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



Andrew Steinberg, Nevada Environmental Response Trust Allan Delorme, ENVIRON Mark Travers, ENVIRON Mike Skromyda, Tronox LLC Michael J. Foster, Tronox LLC Deni Chambers, Northgate Environmental Brian Rakvica, McGinley and Associates Joe McGinley, McGinley & Associates 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 Lee Erickson, Stauffer Management Company Michael Bellotti, Olin Corporation Curt Richards, Olin Corporation Paul Sundberg, Montrose Chemical Corporation Joe Kelly, Montrose Chemical Corporation of CA Jeff Gibson, AMPAC Larry Cummings, AMPAC Ebrahim Juma, Clean Water Team Joe Leedy, Clean Water Team Kathryn Hoffmann, Clean Water Team

CC: Lee Farris, BRC, 875 W. Warm Springs Road, Henderson, NV 89011 Lee Erickson, Stauffer Management Company

## Attachment A

- NDEP's understanding is that the Trust will pursue the establishment of an Environmental Covenant for the entire facility property excepting the areas known as the "Parcels". This Environmental Covenant will reference a Site Management Plan (SMP) that will include procedures that will be followed any time that soil is disturbed as described in the SMP. Additionally, the SMP will be based on the following comments to the Environmental Risk Management Plan.
- 2. General comment, the Trust should consult the lease and any other legal documents for consistency.
- 3. General comment, please remove any reference to EC/IC and replace with Excavation Control Areas (ECA).
- 4. General comment, for clarity please revise "property owner" to reference the Trust.
- 5. Executive Summary, pages 1-5, this section should be revise to be consistent with the following comments and subsequent Deliverable revisions.
- 6. Section 2, the following sub-sections should be removed from the revised Deliverable:
  - a. Section 2.1.2 General Site History
  - b. Section 2.2 Investigation History
  - c. Section 2.3 Human Health Risk Assessment and associated sub-sections
  - d. Section
- 7. Section 3, general comment, a section should be added for the handling of soils within an excavation control area and building perimeter soils. The current text only discusses stockpiles and previously unknown areas of contamination.
- 8. Section 3.0, page 26, TRX states that the "Establishment of procedures to characterize and manage Site soil during construction excavation and trenching activities" will be one of the precautions taken during construction. This Deliverable should establish those procedures that will be followed in the field during construction and, therefore, will not be necessary to establish during construction. Please revise this section accordingly.
- 9. Section 3.1, page 26, NDEP provides the following comments:
  - a. 2<sup>nd</sup> paragraph, please revise this paragraph to indicate that the areas of known contamination and uncharacterized areas will be located in an appendix to this Deliverable.
  - b. 3rd paragraph, TRX states that in areas of known or unknown contamination, "the entity performing the work shall monitor the soil..." Please change the word "monitor" to "characterize".
- 10. Section 3.2, pages 26-27, 1<sup>st</sup> and 2<sup>nd</sup> bullets, please remove the distinction between "small" and "large" quantity. All soils identified within an ECA should be screened and handled in the same manner.
- 11. Section 3.2.2, pages 27-28, NDEP provides the following comments:
  - a. 1<sup>st</sup> bullet, this is unacceptable. All soils within an ECA should be handled the same regardless of quantity. Additionally, NDEP does not allow for the reuse of known contaminated soil. All contaminated soils must be properly treated or disposed.
  - b. 2<sup>nd</sup> bullet, remove the qualifier "significant" as there should be no minimum soil quantity associated with handling of ECA soils.
  - c. 3<sup>rd</sup> bullet, clarify the metric for "surrounding the perimeter of Site buildings" (i.e. how far from building.

- d. 4<sup>th</sup> bullet, revise to state that soil from previously unknown contamination areas will be analyzed using the same broad suite analysis as uncharacterized ECAs.
- 12. Section 3.2.3, page 28, NDEP provides the following comments:
  - a. 1<sup>st</sup> paragraph, analytical results should be compared to the most current version of the Basic Comparison Levels plus the NDEP-approved Site-specific comparison level for dioxins/furans and NDEP-approved background datasets. Please revise text as necessary.
  - b. 2<sup>nd</sup> paragraph, NDEP provides the following comments:
    - i. Please revise so that the Trust and NDEP should be notified prior to the disturbance of soil within any ECA.
    - ii. All confirmation samples should be reported to the Trust and NDEP. Additionally, please remove the statement concerning "no further action".
- 13. Section 3.2.4, pages 28-30, NDEP provides the following comments:
  - a. Page 28, each bullet should state that if visible or otherwise noticeable contamination remains at the limits of the planned excavation, then field judgment will be used to located the confirmation samples within the visible/noticeable contamination to document the level and location of contamination that is requested to remain in place.
  - b. Page 29, 1<sup>st</sup> paragraph, NDEP and the Trust should be notified with 24-hours of discovery of impacted soil or buried debris.
  - c. Page 29, 2<sup>nd</sup> paragraph, the next should additionally stated that the selection of a "track" will additionally be dependent upon the level of contamination, Trust approval, and NDEP approval. It should be clear that removal of contaminated soil is not allowed until the Trust and NDEP have approved a removal plan or "track".
  - d. Page 29, Track 1, NDEP provides the following comments:
    - i. Confirmation soil samples must be collected regardless of depth achieved. Please remove the statement "or until the bottom of the excavation has reached a depth of 10 feet relative to final surface grade."
    - ii. Soil excavation is not considered complete until approved by the Trust and NDEP.
  - e. Pages 29-30, Track 2, please remove text that indicates that characterization will be conducted if construction schedule allows. Characterization of contaminated soil may need to occur regardless of construction schedule as determined by the Trust and/or NDEP.
  - f. Page 30, Track 3, NDEP provides the following comments:
    - i. Item a, all discovered contamination warrants NDEP and Trust notification. Please remove this item.
    - ii. Item c, the affect that any remediation action will have on the construction schedule could be considered but may be irrelevant to necessary regulatory oversight and remediation for a given area of contamination.
- 14. Section 3.3, page 30, NDEP provides the following comments:
  - a. bulleted analytical list, please add the following analytical methods so that characterization and confirmation sampling of unknown contamination is consistent with the Phase B random sampling.
    - i. Metals, EPA 6010 and 6020
    - ii. Hexavalent chromium, EPA 7199/3060A
    - iii. Mercury, EPA 7471
    - iv. Alkalinity, SM2320B
    - v. Ammonia, EPA 350.1

- vi. Anions, EPA 9056
- vii. Conductivity, EPA 9050A
- viii. Perchlorate, EPA 314
- ix. pH, EPA 9045C
- x. Phosphate, EPA 365.1
- xi. TDS, EPA 160.1
- xii. OCPs, EPA 8081A
- xiii. PCBs, EPA 8082
- xiv. Dioxins/Furans, EPA 8290
- xv. Asbestos, EPA 540/R-97/028 Modified
- b. Page 31, 1<sup>st</sup> paragraph, please remove the last sentence and associated bulleted list.
- c. Page 31, 2<sup>nd</sup> paragraph, please note that NDEP and the Trust need to concur with the determination that no additional characterization beyond the initial characterization is necessary to proceed with removal activities. Please revise this paragraph for clarity.
- 15. Section 3.4, page 31, NDEP provides the following comments:
  - a. Please combine this section with Section 3.6.
  - b. Please add that post-excavation sample results to the bulleted list of minimum documentation.
- 16. Section 3.5, page 32, last paragraph of section, please revise to reference "Site excavation, sampling, and construction activities". Additionally, NDEP and the Trust should be copied on these plans.
- 17. Section 3.5.2, page 32, 1<sup>st</sup> paragraph, please add the phrase "or has been confirmed to contain COCs" after "potentially contains COCs".
- 18. Section 3.6, page 33, please include that the described documentation will be provided to the Trust and NDEP for approval.
- 19. Section 4.1, page 34, please note that the Trust and NDEP must be notified prior to the implementation of any construction that may exacerbate existing groundwater contamination as described in this section. If these types of construction activities are anticipated or planned in areas of know groundwater contamination, a mitigation plan must be submitted to the Trust and NDEP and approval from both entities received prior to implementation of these construction activities.
- 20. Section 4.2, page 35, NDEP provides the following comments:
  - a. This section should note that the Trust and NDEP must be notified prior to commencement of any on-Site dewatering activities in areas of know groundwater contamination.
  - b. 4<sup>th</sup> bullet, please revise to note that the groundwater system is owned and operated by the Trust and that this option would be dependent upon Trust approval.
- 21. Section 4.3, page 35, NDEP provides the following comments:
  - a. This section should be revised to indicate that the Trust operates the groundwater treatment system.
  - b. This section should note that any planned activities that would require shutdown of the groundwater remediation system other than periodic and scheduled maintenance, must be approved by NDEP and the Trust prior to implementation.
- 22. Section 4.3.1, page 36, NDEP provides the following comments:
  - a. Please remove the listed decision criteria for potential conflicts between new construction and existing remediation infrastructure. These criteria are not acceptable to the NDEP.

- b. Please note that both the Trust and NDEP would need to approve any modification to the groundwater treatment system including temporary shutdown of the system.
- 23. Section 4.3.3, page 37, this section should reference that a planned shutdown should already be part of a work plan that has been approved by the Trust and NDEP.
- 24. Section 4.3.4, page 37, this section should note that approval from the Trust and NDEP must be obtained prior to any restriction of access to the remediation system infrastructure.
- 25. Section 4.3.5, page 38, please remove this paragraph as the Trust and NDEP should not be required to have to handle dewatering water in the groundwater treatment system if discharge to the sanitary sewer is not allowed.
- 26. Section 5, remove this section as this would be a tenant safety issue (unless the Trust has a reason to keep).
- 27. Section 6, general comments, this section appears discuss the Site in more general terms and with more general procedures. Please consider placing this section before the current Section 3 (Risk Management for Soils). Additionally, please check this section for consistency with the rest of the document and the lease.
- 28. Section 6.0, page 49, 5<sup>th</sup> bullet, please establish a timeline for periodic review by the Trust.
- 29. Section 6.1, page 49, this section should be more generically named "Notifications" and include those notifications required by the tenant to the Trust and NDEP. Notifications that require approval from the Trust and/or NDEP should be additionally noted in this section.
- 30. Section 6.2, page 50, the first three sentences are not necessary, please remove these
- 31. Section 6.3, page 50, 1<sup>st</sup> paragraph, please remove the qualifier "that is impacted with COCs" from the 1<sup>st</sup> sentence.
- 32. Section 6.4, page 51, NDEP provides the following comments:

  - a. 2<sup>nd</sup> paragraph, this paragraph is not accurate, please revise or remove.
    b. 3<sup>rd</sup> paragraph, periodic review and update should be conducted by the Trust. After the Trust has completed the periodic update of the SMP, then the updated SMP should be submitted to NDEP for review and approval. The approved SMP should then be distributed to any tenants, etc. as necessary. Please revise this section accordingly.
- 33. Section 6.4.2, please note that NDEP does not require periodic monitoring of buildings for vapor intrusion at this time.
- 34. Table 1, the footnotes should include a warning to check the NDEP website for the most current version of the BCLs and include a link to the appropriate webpage.
- 35. Figures 4 and 5, these Figures are not necessary, please remove.
- 36. Appendix A, Environmental Covenants, Institutional and Engineering Control Plan, this plan should be revised based on the Trust's proposed environmental covenant plan and areas of known contamination left in place as well as uncharacterized or incompletely characterized areas. NDEP is not providing specific comment to Appendix A at this time.