



# STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor

Allen Biaggi, Director

Leo M. Drozdoff, P.E., Administrator

May 11, 2007

Ms. Susan Crowley  
Tronox LLC  
PO Box 55  
Henderson, Nevada 89009

Re: **Tronox LLC (TRX)**  
**NDEP Facility ID #H-000539**  
Nevada Division of Environmental Protection Response to:  
*Phase I Environmental Site Assessment – Approximately 182 Acres of land*  
dated March 5, 2007

Dear Ms. Crowley,

The NDEP has received and reviewed TRX's report identified above and provides comments in Attachment A. It is requested that TRX provide an annotated response-to-comments (RTC) letter prior to resubmitting this document or a Phase II work plan. It is suggested that TRX discuss these issues with the NDEP prior to resubmittal.

If there are any questions please do not hesitate to contact me.

Sincerely,

Brian A. Rakvica, P.E.  
Supervisor  
Bureau of Corrective Actions  
Special Projects Branch  
NDEP-Las Vegas Office



CC: Jim Najima, NDEP, BCA, Carson City  
Shannon Harbour, NDEP, BCA, Las Vegas  
Todd Croft, NDEP, BCA, Las Vegas  
Mike Richardson, NDEP, BWM, Las Vegas  
Keith Bailey, Tronox, Inc, PO Box 268859, Oklahoma City, Oklahoma 73126-8859  
Sally Bilodeau, ENSR, 1220 Avenida Acaso, Camarillo, CA 93012-8727  
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Washington, D.C. 20036  
Brenda Pohlmann, City of Henderson, PO Box 95050, Henderson, NV 89009  
Mitch Kaplan, U.S. Environmental Protection Agency, Region 9, mail code: WST-5,  
75 Hawthorne Street, San Francisco, CA 94105-3901  
Rob Mrowka, Clark County Comprehensive Planning, PO Box 551741, Las Vegas, NV, 89155-  
1741  
Ranajit Sahu, BRC, 311 North Story Place, Alhambra, CA 91801  
Rick Kellogg, BRC, 875 West Warm Springs, Henderson, NV 89011  
Mark Paris, Landwell, 875 West Warm Springs, Henderson, NV 89011  
Craig Wilkinson, TIMET, PO Box 2128, Henderson, Nevada, 89009-7003  
Kirk Stowers, Broadbent & Associates, 8 West Pacific Avenue, Henderson, Nevada 89015  
George Crouse, Syngenta Crop Protection, Inc., 410 Swing Road, Greensboro, NC 27409  
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Lee Erickson, Stauffer Management Company, P.O. Box 18890, Golden, CO 80402  
Chris Sylvia, Pioneer Americas LLC, PO Box 86, Henderson, Nevada 89009  
Paul Sundberg, Montrose Chemical Corporation, 3846 Estate Drive, Stockton, California  
95209  
Joe Kelly, Montrose Chemical Corporation of CA, 600 Ericksen Avenue NE, Suite 380,  
Bainbridge Island, WA 98110

**Attachment A**

1. General comment, the Figures do not always show the entire parcel. If only a portion of the parcel is being considered for the Phase I, then the entire parcel should be shown with the area of interest demarked. For example, Figure 3 shows only portions of APN 178-12-401-009 and 178-13-101-002.
2. General comment, during a site visit with TRX's contractor (Basic Remediation Company) it was noted that the development plans do not necessarily coincide with the Parcel definitions. It is suggested that the revised report be broken into smaller reports. For example, the report could address these areas to coincide with development plans or on a parcel-specific basis. This issue should be discussed with the NDEP.
3. General comment, the Figures do not label the surrounding Site features and the text does not provide a sufficient description of the surrounding Site features. For the NDEP to fully understand the potential impacts to the various parcels the NDEP would need to review the TRX Conceptual Site Model (CSM) as well as data from surrounding BMI Companies (e.g.: TIMET, Pioneer, Stauffer, and Montrose) and WAPA. The NDEP will not complete this exercise for TRX; please be aware that the comments below are therefore *not comprehensive*. Additional details are provided below:
  - a. None of the Figures show the relationship of these Parcels to surrounding source areas. TRX has identified most of these source areas in their CSM: however, transparency is lacking in this document.
  - b. The Figures and the text do not discuss the historic disposal ditches relative to the Parcels that are presented. It is the understanding of the NDEP that some of these Parcels may have been impacted by historic disposal ditch operations. This issue must be discussed.
  - c. The report does not appear to address the former usage of the Southern portion of the TRX facility by State Industries, please discuss how this relates to the parcels included in this report.
  - d. In addition, the report does not appear to address how the former U.S. Vanadium operations may have affected any of the parcels. Please discuss.
  - e. Additional comments and examples are provided below.
4. General comment, the report in general is very repetitive. The same information is presented a number of times for each Parcel. This is perhaps unnecessary and is not helpful. The report should focus on providing additional detail rather than repeating the same information. NDEP understands that this format may be necessary to address the "All Appropriate Inquiries" requirements; however, some modifications are suggested below.
  - a. For example, Section 8.0, Findings states "A cursory summary of findings is provided below. However, details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein." TRX does not provide cross-references to the appropriate Sections of the report for

the NDEP or reviewer. This makes the review of this document very onerous. It is suggested that the "Findings" be comprehensively summarized in this Section for ease of review/transparency.

- b. Some of the NDEP's comments listed below may be addressed in the report; however, it is very difficult to locate the information in the report. NDEP regrets any comments that are presented below that are unnecessary.
5. Section 4.4.3, page 47, Converse lists reports that were made available to review to complete this Phase I report. The list of reports is very limited and that provides one explanation as to why the report may be so deficient.
6. Section 9.0, page 69, the report discusses various debris piles. Please note that it is evident that some of these piles may have been burned. Please discuss this in terms of any dioxin/furan impacts to the Site.
7. Section 9.0, page 70, item 4, provide references for the "Review of reports for the Property".
- 8.
9. Section 10.0, pages 71 through 74, the NDEP has the following comments:
  - a. Page 72, item 1, the report indicates "the extent of contaminated soil cannot be determined at this time or if contaminated groundwater exists beneath the Property." Regarding groundwater, it is well documented that contaminated groundwater exists beneath the entire BMI Complex. This statement represents a lack of diligence in the report.
  - b. Page 73, Item 3, based upon a review of historic aerial photographs it appears to the NDEP that the Trade Effluent Settling Ponds leached, leaked or weeped a significant amount of wastewater onto these Parcels. This issue should be discussed in greater detail. The report discusses that no plumbing was reportedly installed in the soil berms. This is contrary to the statement regarding the installation of French Drains. It is the NDEP's understanding that a French Drain is typically a perforated pipe that redirects ground water away from an area. Please explain and provide references.
10. Section 14.0, this Section lacks any reference to Site documents, please explain.
11. Four Acre Parcel not included in the report, the NDEP has the following comments:
  - a. This parcel is located south of the Unit buildings and south of Parcels APN 178-13-101-002 and 178-12-401-009.
  - b. This parcel was noted by TRX's contractor Basic Remediation Company (BRC) during a site visit with BRC. BRC noted that TRX would like to include this parcel as part of the Phase I. To date, no documentation has been provided to the NDEP.
  - c. There is an earthen basin located on this parcel. BRC states that it is a stormwater basin and that the origin/use is unknown.
  - d. There is an electrical vault on this parcel with unknown ownership and use. NDEP noted that it appears to be in line with the WAPA cable tunnel.
  - e. Documentation is needed regarding this parcel.
12. APN 178-11-501-007, 178-12-101-002, 178-12-601-005 and 178-13-401-001

- a. This group of parcels includes an area referred to by BRC as the "53 acre parcel" which is proposed for development first, once approved by the NDEP. This unnecessarily complicates the NDEP's review of the report and hence the comments provided by the NDEP. The comments below include these parcels discussed collectively and individually.
  - b. A number of debris piles, homeless camps, and other items were noted during the NDEP's site visit. All of these items should be shown on the Figures and discussed in the text.
  - c. There are a number of wells in this area and the chemical data from these wells should be discussed.
  - d. An abandoned baghouse of unknown origin was found on these parcels. This should be discussed and investigated, as necessary.
  - e. Multiple five gallon pails of what appears to be waste oil were found on these parcels. Some were open and spilled, others were not. This should be discussed and investigated, as necessary.
  - f. APN 178-11-501-007
    - i. This Parcel is owned by Basic Environmental Company, it is the request of the NDEP that TRX reports address TRX parcels only.
  - g. APN 178-12-101-002
    - i. This Parcel includes the Nevada Pick-A-Part facility. The Nevada Pick-A-Part facility appears to have significant and continuing impacts. If TRX is eventually seeking a No Further Action status for Parcel APN 178-12-101-002 it is suggested that the Nevada Pick-A-Part facility be removed from this Parcel. Alternately, investigation, remediation and restoration of the Nevada Pick-A-Part facility should commence. Regardless of what TRX chooses, investigation and remediation will be necessary to mitigate the impacts at the Site. In addition, based upon a review of the photographs this facility has been referred to the NDEP-Bureau of Waste Management for potential RCRA issues.
  - h. APN 178-13-401-001, this is the area formerly leased by Lavern Vohs. Please discuss how this report relates to the Phase I report previously completed for this area.
13. APN 178-12-101-003
- a. The Pioneer-Stauffer-Montrose (PSM) groundwater treatment system's (GWTS) extraction well field and possibly portions of the injection system are located on this parcel. Based upon NDEP field observations the various extraction well heads leak contaminated groundwater on to the land surface. This groundwater contains a number of RCRA compounds. This is not discussed in the report.
  - b. The PSM GWTS extraction well field is not labeled on Figure 4.
  - c. Add all wells, piezometers, etc. to the Figures and discuss data associated with these wells.
  - d. Please discuss the historic French drain system constructed in association with the Trade Effluent Settling Ponds and its impacts to this parcel.

- e. A number of debris piles were located on this parcel and these are not shown on the Figure. TRX needs to present more complete documentation for this report. In addition, one large debris pile appears to be located in a natural drainage area and has been strewn across the property from storm events. It is not clear if burning occurred in relation to this debris pile.

14. APN 178-12-201-005

- a. The PSM GWTS extraction well field and possibly portions of the injection system are located on this parcel. Based upon NDEP field observations the various extraction well heads leak contaminated groundwater on to the land surface. This groundwater contains a number of RCRA compounds. This is not discussed in the report.
- b. The PSM GWTS extraction well field is not labeled on Figure 4.
- c. Add all wells, piezometers, etc. to the Figures and discuss data associated with these wells.
- d. A number of debris piles were located on this parcel and these are not shown on the Figure. TRX needs to present more complete documentation for this report.
- e. Please discuss the historic French drain system constructed in association with the Trade Effluent Settling Ponds and its impacts to this parcel.

15. APN 178-12-401-009 and APN 178-13-101-002

- a. Figure 3, the NDEP has the following comments:
  - i. There appears to be large piles of debris that are not labeled on this Figure. These had been removed by the time the NDEP had completed a site visit. It is necessary to correlate these piles to aerial photographs and investigate these areas, as necessary.
  - ii. As noted above it is imperative that TRX identify and discuss the features displayed on this Figure.
- b. There is a building foundation on these parcels which appears similar to the peat building that was destroyed on the TIMET parcel. Please discuss what the use of this building was. Section 6.1 may address this issue but it is not clear.
- c. TRX notes that there is a monitoring well on this property; however, there is no discussion regarding the chemical data from these wells. Please note that there are several monitoring wells on this property, including an unlabeled 2" well on the south side of the property. In addition, it is expected that there are likely monitoring wells upgradient and downgradient of this Parcel that could be examined. Typically, impacts to groundwater are suggestive of impacts to soil on the Site or upgradient of the Site.
- d. TRX states that there is electrical equipment on this Parcel in a fenced area. The ownership and condition of this equipment needs to be assessed.
- e. Based upon the presence of large amount of staining and debris on this Parcel, the NDEP believes that additional investigation is necessary.

- f. A remediation project was recently completed on the Parcel directly north of this Parcel (by TIMET). The Site to the north was contaminated with PCBs from electrical equipment.
  - g. There appear to be large aboveground storage tanks to the South of this area. Please discuss their status and historical uses. Also, to be noted portions of these tanks are included in the Parcel, however, as noted above the entire Parcel is not portrayed in the Figures.
  - h. It is the understanding of the NDEP that the former Hardesty Chemical/ AMECCO operation may have occurred directly south of this Parcel. Please discuss this issue.
  - i. A mobile aboveground storage tank is located on this parcel. Please discuss this.
  - j. The report displays only a portion of these Parcels. Please show the entire Parcel and explain the intention of the report. See also comments above.
16. APN 178-13-601-002 and APN 178-13-601-003
- a. These are the Parcels located along the southern extents of the TRX facility.
  - b. During the NDEP's site visit the following was noted:
    - i. There are debris piles west of the monitoring well in the middle portion of parcel APN 178-13-601-002 east of Van Wagonen. Please discuss what these piles are and what action will be taken to address these piles.
    - ii. Parcel APN 178-13-601-003, there is a drainage feature east of the substation with an empty bucket of hydraulic fluid in it. Please discuss.
    - iii. Channels have been incised where storm water appears to have traversed the property (including Basic Substation). Please discuss chemical impacts expected from this feature.
  - c. TRX notes that there are five monitoring wells on this property; however, there is no discussion regarding the chemical data from these wells. Typically, impacts to groundwater are suggestive of impacts to soil on the Site or upgradient of the Site.
  - d. The results of the *Upgradient Report* submitted by TRX to the NDEP would appear relevant to the discussion of these Parcels.
  - e. In Section 8.0, page 64, TRX states "small areas of soil staining were observed throughout the parcels." It is the belief of the NDEP that these areas of soil staining require investigation.
  - f. In Section 8.0, page 64, TRX states "Partially buried black plastic conduit was observed at various locations on the parcels." The NDEP believes that additional investigation is needed to determine the source of this material and what (if any) chemical impacts may have occurred as a result of this.
  - g. In Section 8.0, page 64, TRX states "the parcels appeared to have been sprayed with a dust suppressant." It is necessary for TRX to investigate if these road areas of the Parcel were sprayed with a dust suppressant or not. Perhaps this was indicative of illegal chemical disposal rather than dust

suppression. The NDEP should not be expected to assume what has transpired on these Parcels. In addition, it is important to understand what type of dust suppressant was used. Historically, throughout the BMI Complex a variety of materials (including solvents) have been used as dust suppressants. Some of these historic dust suppressants may have impacted the Site. These road areas may require additional investigation.

- h. Figure 2 portrays the WAPA switching yard as an isolated feature. TRX should review the available documentation on the WAPA facility. The WAPA facility has three yards which are connected by a subsurface tunnel. These yards and the subsurface tunnel have significant contamination associated with them. Storm drains associated with the various yards have likely transmitted contamination off-Site. This issue requires further review by TRX.
  - i. Figure 2, the NDEP has the following comments:
    - i. The legend shows a symbol for the linetype used to delineate the WAPA Henderson switching station; however, this linetype is not visible on this Figure. In addition, this Site feature should be labeled explicitly.
    - ii. The linetype for the natural gas lines is also not apparent on this Figure.
    - iii. APN 178-13-601-003 shows the property line crossing through what appears to be an area of transformers north of Basic Substation. Additionally according to the Clark County Assessor website, the entire parcel is owned by the USA and the switching station is not a separate parcel. Please discuss these areas and their ownership. If the parcel is owned by USA it is not clear why it is included in this report.
17. Figure 1, it would be helpful if the Parcel numbers were shown on this Figure with arrows pointing to the general locations of the Parcels.
18. Appendix A, Figure 5, it appears that the Parcel labeled as APN 178-12-101-005 should be labeled as APN 178-12-601-005.