

March 11, 2006

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 A Source Area Investigation Work Plan
dated February 2006

Dear Ms. Crowley,

The NDEP has received and reviewed Trx's letter identified above and provides comments in Attachment A.

These comments should be addressed in a meeting or telephone call for expediency. Please provide a revised submittal following resolution of the comments. If there are any questions please do not hesitate to contact me.

Sincerely,

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

Ms. Susan Crowley

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CC: Jim Najima, NDEP, BCA, Carson City
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Attachment A

1. It appears that the tone and purpose of the work plan has evolved. Based on the September 30, 2005 letter from Kerr-McGee to the NDEP the purpose of the Phase A work plan was as follows: “to determine how many of the site-related chemicals (SRCs) are actually present on-site and to **start** the screening process to select SRCs applicable to future sampling efforts and **support** the selection of chemicals of potential concern (COPCs).” Please note that bolding, and italicizing have been added for emphasis (above and below). In the February 2006 work plan, executive summary, page ES-1, Trx states “The activities covered by this work plan... is intended to evaluate the presence or absence of site-related chemicals (SRCs) in areas of highest potential impacts. Further it is intended to support the selection of constituents of potential concern (COPC).” Section 1.0, page 1-1 goes on to stated “this investigation is to assess which SRCs are present or absent at the Site and to identify which of the SRCs would be applicable in future sampling efforts.” The NDEP would like to provide the following clarification regarding it’s understanding:
 - a. Data will be collected in such a manner that it is useful for the selection of COPC selection, however, this work plan *alone* will not support the selection of COPCs.
 - b. Additional characterization of the site based on the SRC list may be required after Phase A.
 - c. Eight borings and three monitoring wells are not likely to be sufficient to support COPC selection. Additional discussion between the NDEP’s risk assessment team and Trx’s risk assessment team is likely warranted.
 - d. Additional investigation in the soils below the water table and groundwater in the deeper zones of the Muddy creek Formation are likely to be necessary.
2. Executive Summary, page ES-1, the same text is repeated twice in the section starting with the words “The activities covered by this work plan...” In the future, please complete a more rigorous QA/QC process prior to submittal.
3. Section 3.1, page 3-1, the NDEP has the following comments:
 - a. Without lithologic cross-sections (showing water table elevations as well as lithologic details) it is not possible for the NDEP to determine if the proposed sampling intervals are adequate. It is suggested that samples be taken every 10’ to the water table.
 - b. The NDEP is not opposed to groundwater samples being taken from the east and west interceptor well galleries, however, it should be noted that this procedure will mask the high and low concentrations within each well. It is likely that this data will not be useful for COPC selection. Trx may need to consider installation of additional groundwater monitoring wells on the plant site area once the results of the soil analysis are complete.
4. Section 3.3, page 3-3, please note that PCBs are not pesticides.
5. Section 3.3, page 3-3, Trx states “it is anticipated that once the soil and groundwater data are developed, many SRCs and portions of the associated broad suite constituent analysis can be eliminated from future sampling programs.” As stated above, the NDEP does not concur.

6. Table 3, please note that the NDEP does not warrant the applicability of the information presented on this table as it is the responsibility of the project CEM.
 - a. Please note that asbestos appears to be missing from this table.
 - b. Ethylene glycol could be combined with the "Fuel Alcohols" line item
 - c. The listing of metals is incomplete versus the presentation on Table 4. For example, silicon, tin, thallium, etc.
7. Tables 4 and 7, it was the NDEP's understanding that this table represents the full list of analytes related to the SRC list. If not, Trx should develop a supplemental list of SRCs that are not proposed for analysis (with justification) and provide this to the NDEP. It is not clear to the NDEP what is intended.
 - a. Radionuclides that are proposed to be back quantitated are not presented.
 - b. Please discuss if asbestos is proposed to be addressed by the elutriator method or an alternative method.
 - c. It is noted that semi-volatile organic compound (SVOC) analysis is proposed but polycyclic aromatic hydrocarbon (PAH) analysis is not. It is noted that the SVOC analysis will not provide adequate detection limits, please include PAH analysis.
 - d. Please note that there are some sorting errors on table 4 with regards to alphabetical order.
 - e. It has been reported by others that 1,4-dioxane can be analyzed and detected at a sufficiently low level via method 8270 analysis. Please discuss this issue with your laboratories and add 1,4-dioxane to the list of analytes, if appropriate.
 - f. Table 4, chlorobenzol (as listed on the SRC list, and monochlorobenzene as duplicated on the SRC list) appears to be missing from this table. Please verify that the compound names listed on the SRC list are consistently used in future documents. If synonyms are used a cross-reference should be included. For example, methyl isobutyl ketone and orthodichlorobenzene.
 - g. It appears that some of the questions regarding methodology that were evident in the SRC list have been addressed. The NDEP requests that an updated SRC List be provided under separate cover.
8. Table 5, the NDEP has the following comments:
 - a. None of the superscripts on this table are defined.
9. Table 6, please note that the NDEP does not warrant the applicability of the information presented on this table as it is the responsibility of the project CEM.
10. Plate 1, the NDEP has the following comments:
 - a. Based on Plate 6 of the Trx Conceptual Site Model (CSM) dated February 2005, it appears that boring SA-1 should be located further north. In addition, based on the number of letter of understanding (LOU) areas in the vicinity, it appears that a boring is warranted on the north side of each unit building (units 1 through 6). The specific location of each of these borings should be coordinated between Plate 6 of the CSM and site knowledge.
 - b. It would be helpful if the LOU areas from Plate 6 of the CSM were shown on this figure.

- c. It is the belief of the NDEP that additional borings are warranted to address the former manganese tailings area, LOU #34, various locations.
- d. It is the belief of the NDEP that additional borings are warranted to address ponds C-1 and Mn-1, LOUs #20 and 21, respectively. It is suggested that an additional boring be placed downgradient of these ponds.
- e. It is the belief of the NDEP that additional borings are warranted to address ponds AP-1, AP-2, AP-3, and AP-4, LOUs #16, 17 and 18.
- f. It is the belief of the NDEP that additional borings are warranted to address ponds WC-1 and WC-2, LOUs # 22 and 23, respectively.
- g. It is the belief of the NDEP that additional borings are warranted to address the historic trade effluent settling ponds, LOU #1. It is suggested that a boring be placed downgradient of existing pond GW-11.
- h. It is the belief of the NDEP that additional borings are warranted to address ponds P-2 and S-1, LOUs #9 and 13, respectively.
- i. It is the belief of the NDEP that additional borings are warranted to address the historic hazardous waste landfill, LOU #10.
- j. It is the belief of the NDEP that additional borings are warranted to address the Beta Ditch, Northwest Drainage Ditch and Mystery Ditch.
- k. It is likely that additional borings are warranted in the future to address other LOU areas, potential source areas and deeper soils (below the water table).
- l. Per the NDEP's previous comments on the *Upgradient Work Plan*, the NDEP requests that samples be collected in the storm ditch upgradient of the plant site area.