



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

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

August 23, 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:  
*Engineering Evaluation of Slope Stability GW-11 and WC Pond Embankments, Phase B*  
*Soil Remediation of RZ-D, Tronox LLC, Henderson, Nevada*  
Dated: August 18, 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 September 3, 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](mailto: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  
Brenda Pohlmann, City of Henderson  
Mitch Kaplan, U.S. Environmental Protection Agency, Region 9  
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  
Joe McGinley, McGinley & Associates  
Barry Conaty, Holland & Hart LLP  
Ranajit 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  
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: Susan Crowley, C/O Tronox LLC, PO Box 55, Henderson, NV 89009  
Lee Erickson, Stauffer Management Company

## Attachment A

1. General comment, TRX should note that the determination of setbacks for excavation adjacent to Ponds GW-11, WC-East, and WC-West should not delay the completion of excavation in RZ-D. Currently, NDEP has approved an excavation completion date of October 30, 2010 for RZ-D. TRX should respond to the below comments and provide all necessary data to the NDEP in a timely manner in order to keep this schedule. Until any setbacks have been approved by NDEP, the excavations adjacent to these ponds should extend to the toe of the berms.
2. General comment, the Deliverable does not contain any of the supporting information for the referenced calculations; therefore, the NDEP's review is limited. Please provide all supporting information in the revised Deliverable.
3. Available Geotechnical Data, TRX indicates that there is no available geotechnical data for any of the pond embankments. NDEP finds this disconcerting as this issue has been in discussion between NDEP and TRX for several months. This is an important issue and it is necessary to collect site-specific data for each of the pond embankments. Please collect this data immediately and incorporate it into the revised Deliverable.
4. Stability Analyses, NDEP provides the following comments:
  - a. TRX references a Figure 2 in this Section; however, no Figures were provided with this Deliverable. Please provide all necessary Figures in the revised Deliverable.
  - b. TRX did not provide any calculations, results, or comparison values to support the conclusions made in this Deliverable. Please provide all necessary information for transparency so that NDEP can conduct a thorough review.
  - c. TRX did not present any scenarios for any distances closer than 35 feet from the toe of the berm or depths shallower than 10 feet below ground surface (fbgs). TRX should present results starting from the toe of the berm. Additionally, since the excavation depths surrounding the GW-11 and WC Ponds have been established, TRX should run the modeling scenarios with the objective of getting each excavation polygon as close as possible to the toe of the berms based on the depth of each polygon. (i.e. RZ-D-10 has an excavation depth of 0.33 fbgs, this excavation polygon should be able to extend to the toe of the GW-11 berm while RZ-D-15 with an excavation depth of 7 fbgs may need to be setback from the GW-11 berm.)
  - d. TRX should consider that the entire embankment need not be excavated to the designated depth at the same time. Please discuss how phasing the excavation would alter the stability calculations and results. For example, only excavating 10 linear feet at a time.
  - e. TRX should consider and discuss how installation of sheet piling, trench boxes or other support mechanisms would affect the stability calculations and results.
  - f. TRX indicates that there is no soil moisture content data. Pursuant to NDEP's comment above, it is expected that this data will be collected for each embankment.