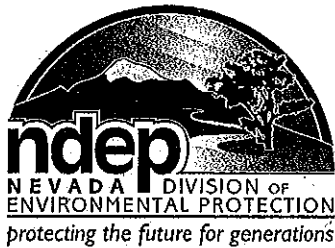


## **Appendix D**

### **Correspondence with NDEP**



# STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor

Allen Biaggi, Director

Leo M. Drozdoff, P.E., Administrator

March 26, 2008

Susan Crowley  
Tronox LLC  
PO Box 55  
Henderson, Nevada 89009

Re: **Tronox LLC (TRX)**  
**NDEP Facility ID #H-000539**  
Nevada Division of Environmental Protection (NDEP) Response to:  
*Quarterly Performance Report for Remediation Systems, Tronox LLC, Henderson, Nevada, October – December 2007*  
Dated February 27, 2008

Dear Ms. Crowley,

The NDEP has received and reviewed TRX's above-identified performance report and provides comments in Attachment A. These comments should be addressed in future performance report submittals. TRX should additionally provide an annotated response-to-comments letter as part of the next performance report submittal unless otherwise noted.

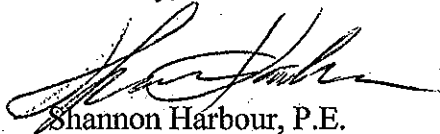
Additionally, pursuant to Section VI, paragraph 2 of the 2005 Administrative Order on Consent between TRX (formerly Kerr McGee Chemical LLC) and NDEP, the NDEP, at its discretion, may reduce the quarterly performance reporting to semi-annual reporting. Therefore, TRX may begin to report to the NDEP-BCA on a semi-annual schedule. Commencing immediately, TRX is only required to submit a Semi-Annual (July – December) and Annual (January – June) Performance Report. The Semi-Annual and Annual reports should be submitted by February 28th and August 28th of each year, respectively.

TRX should note that this does not change any permit reporting requirements, etc. Additionally, TRX should continue to provide timely notification to NDEP about significant remedial system upsets or shutdowns, well destruction, etc.

It is suggested that the issues in Attachment A be discussed, in person, with the NDEP at the next available date. Please contact the NDEP to arrange this meeting. Please contact the undersigned with any questions at [sharbour@ndep.nv.gov](mailto:sharbour@ndep.nv.gov) or (702) 486-2850 extension 240.



Sincerely,



Shannon Harbour, P.E.  
Staff Engineer III  
Bureau of Corrective Actions  
Special Projects Branch  
NDEP-Las Vegas Office

SH:bar:sh

CC: Jim Najima, NDEP, BCA, Carson City  
Brian Rakvica, NDEP, BCA, Las Vegas  
Keith Bailey, Environmental Answers LLC, 3229 Persimmon Creek Drive, Edmond, OK 73013  
Sally Bilodeau, ENSR, 1220 Avenida Acaso, Camarillo, CA 93012-8727  
Barry Conaty, Akin, Gump, Strauss, Hauer & Feld, L.L.P., 1333 New Hampshire Avenue, N.W.,  
Washington, D.C. 20036  
Brenda Pöhlmann, 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  
Ebrahim Juma, Clark County Comprehensive Planning, PO Box 551741, Las Vegas, NV, 89155-1741  
Ranjit 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  
Nick Pogoncheff, PES Environmental, 1682 Novato Blvd., Suite 100, Novato, CA 94947  
Lee Erickson, Stauffer Management Company, P.O. Box 18890, Golden, CO 80402  
Michael Bellotti, Olin Corporation, 3855 North Ocoee Street, Suite 200, Cleveland, TN 37312  
Curt Richards, Olin Corporation, 3855 North Ocoee Street, Suite 200, Cleveland, TN 37312  
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. Section 2.0, page 2-2, second paragraph, please notify the NDEP when the new injection trench has been installed. TRX should additionally report the installation in the corresponding performance report.
2. Section 2.0, page 2-2, fourth paragraph, TRX should remove this discussion until TRX has evidence to present that their assumptions are correct. It is suggested that this discussion (and similar discussions throughout the report) be deferred to the Capture Zone Evaluation.
3. Section 3.0, page 3-2, the NDEP has the following comments:
  - a. TRX states that the anomalously high concentration of chromium in well ART-1 is believed to be due to "chromium leaching from the stainless steel screen". Please explain the chemical conditions in this well that would facilitate this leaching. Also, well ART-1 is not a new well so please explain what has changed in the recent past to facilitate this leaching.
  - b. Last paragraph, TRX states that PC-68 will be abandoned because "it is no longer needed." Please provide rationale for this statement.
4. Section 5.0, page 5-1, TRX notes that approximately 77% of pond AP-5 has been treated. NDEP would like to discuss TRX's plans for the use of the excess treatment capacity once pond AP-5 is remediated.
5. Figure 11, it is requested that the scale on this Figure be adjusted so that more recent data can be presented in a meaningful fashion. NDEP is amenable to addressing this in any number of ways and would like to discuss this matter with TRX. This comment also applies to other Figures.
6. Appendix C, Response To Comments (RTC), the NDEP has the following comments:
  - a. RTC 1.a, as noted above, TRX should notify NDEP when the Interceptor well field rehabilitation is complete and include in the next performance report.
  - b. RTC 1.c, as noted above, TRX should remove this discussion until TRX has evidence to present that their assumptions are correct.
  - c. RTC 5.d, the NDEP has the following comments:
    - i. TRX states that influent and effluent samples are collected annually from the activated carbon system. Please provide the annual sampling analytical results for the activated carbon influent and effluent sampling in the next performance report.
    - ii. Please note that based upon a review of groundwater data from neighboring properties to the west it appears that a plume of high concentration organics is approaching the western edge of the TRX on-Site treatment system. For example, chloroform at concentrations in excess of 6,000 micrograms/liter.
    - iii. It should be noted that the groundwater treatment system operated north of the Olin property is not effective in treating beta-BHC. This system uses two stages of granular activated carbon as well as air stripping. TRX should consider this when examining options to address beta-BHC.
  - d. RTC 5.e, the NDEP discussed having TRX report a minimum of the last 5 quarters of data in the hard copy of the report. The electronic version of the database included with the performance report was to contain all historical and current data. Please include all historical data in the electronic version of the database included with the next performance report.

**Tronox Response to March 26, 2008 NDEP Comments on Quarterly Performance Report  
for Remediation Systems, Tronox LLC dated February 27, 2008**

**NDEP Comment**

1. Section 2.0, page 2-2, second paragraph, please notify the NDEP when the new injection trench has been installed. TRX should additionally report the installation in the corresponding performance report.

**Tronox Response**

*The northern injection trench has been refurbished by removing gravel, tree roots, Quaga mussels and a small quantity of iron oxide. New clean gravel was installed and the trench is operating well. A more complete description of the installation will be included in the upcoming performance report.*

**NDEP Comment**

2. Section 2.0, page 2-2, fourth paragraph, TRX should remove this discussion until TRX has evidence to present that their assumptions are correct. It is suggested that this discussion (and similar discussions throughout the report) be deferred to the Capture Zone Evaluation.

**Tronox Response**

*Tronox will remove this discussion until Tronox has evidence to present that the assumptions are correct. This and similar discussions will be deferred to the Capture Zone Evaluation which will be included as an appendix in the next performance report.*

**NDEP Comment**

3. Section 3.0, page 3-2, the NDEP has the following comments:
  - a. TRX states that the anomalously high concentration of chromium in well ART-1 is believed to be due to "chromium leaching from the stainless steel screen". Please explain the chemical conditions in this well that would facilitate this leaching. Also, well ART-1 is not a new well so please explain what has changed in the recent past to facilitate this leaching.
  - b. Last paragraph, TRX states that PC-68 will be abandoned because "it is no longer needed." Please provide rationale for this statement.

**Tronox Response**

*3.a. Because of low concentrations of perchlorate and chromium in ART-1 (0.189 and <0.05 mg/l respectively on November 6, 2006) this well was shut off on December 19, 2006 so that higher concentration water could be collected. Sampling continued on a routine basis and nothing out of the ordinary occurred until August 13, 2007 when the chromium (Cr) analysis was reported to be 0.2 mg/l. Successive Cr analyses came back high as well. All samples to that point were collected soon after the pump was turned on, meaning that the well was not adequately purged. The sampler was instructed to purge the well by running the pump for 90 minutes at about 14 gpm (about 1,260 gallons, nearly 30 purge volume.). The sample came back as ND at 0.02 mg/L. All subsequent samples have been ND as well. This is an indication that there is little or no Cr in the groundwater.*

*3.b. PC-68 is on the western edge of the perchlorate plume in the Lower Ponds area and has contained less than 2 mg/l perchlorate since March 2004 and is currently 0.08 mg/L as of May 2008. PC-62, 200 ft southeast, has been less than 6 mg/l since August 2005 and is currently 2.4 mg/l as of May 2008. PC-112, 700 ft west of PC-68, has been <0.02 since May 2002 and is currently ND as of May 2008. PC-62 monitors the same area and depth as PC-68; therefore, PC-68 is redundant and could be abandoned.*

**NDEP Comment**

4. Section 5.0, page 5-1, TRX notes that approximately 77% of pond AP-5 has been treated. NDEP would like to discuss TRX's plans for the use of the excess treatment capacity once pond AP-5 is remediated.

**Tronox Response**

*Tronox is dissolving perchlorate from the AP-5 pond and transferring it to the GW-11 pond for subsequent biological treatment. Tronox anticipated that treatment of perchlorate from AP-5 would require about three years (from August 2006), depending on the quantity of perchlorate actually in AP-5. Tronox will continue transfers of perchlorate from AP-5 until the residual non-perchlorate pond solids are removed, likely in mid-2009. Tronox then plans to reduce the volume and perchlorate concentration of water in GW-11, to allow use of that pond as an equalization basin for bioplant feed (eliminating the need to use the BT tanks for equalization). Once that work is complete, use of any surplus bioplant capacity can be discussed with NDEP using Phase B Site Investigation results to guide the discussion.*

**NDEP Comment**

5. Figure 11, it is requested that the scale on this Figure be adjusted so that more recent data can be presented in a meaningful fashion. NDEP is amenable to addressing this in any number of ways and would like to discuss this matter with TRX. This comment also applies to other Figures.

**Tronox Response**

*A second trend graph for this figure and others like it, spanning the time period of the last five quarters, will be added to the next performance report in order for the most recent data to be presented in a meaningful way.*

**NDEP Comment**

6. Appendix C, Response To Comments (RTC), the NDEP has the following comments:
  - a. RTC 1.a, as noted above, TRX should notify NDEP when the Interceptor well field rehabilitation is complete and include in the next performance report.
  - b. RTC 1.c, as noted above, TRX should remove this discussion until TRX has evidence to present that their assumptions are correct.
  - c. RTC 5.d, the NDEP has the following comments:
    - i. TRX states that influent and effluent samples are collected annually from the activated carbon system. Please provide the annual sampling analytical results for the activated carbon influent and effluent sampling in the next performance report.
    - ii. Please note that based upon a review of groundwater data from neighboring properties to the west it appears that a plume of high concentration organics is approaching the western edge of the TRX on-Site treatment system. For example, chloroform at concentrations in excess of 6,000 micrograms/liter.
    - iii. It should be noted that the groundwater treatment system operated north of the Olin property is not effective in treating beta-BHC. This system uses two stages of granular activated carbon as well as air stripping. TRX should consider this when examining options to address beta-BHC.
  - d. RTC 5.e, the NDEP discussed having TRX report a minimum of the last 5 quarters of data in the hard copy of the report. The electronic version of the database included with the performance report was to contain all historical and current data. Please include all historical data in the electronic version of the database included with the next performance report.

**Tronox Response**

6.a. Tronox will notify NDEP when the Interceptor well field rehabilitation is complete and will include information in the next performance report.

6.b. Tronox will remove the discussion until Tronox has evidence to present that our assumptions are correct.

6.c.i. The annual sampling analytical results for the activated carbon influent and effluent sampling will be provided in the next performance report.

6.c.ii. Tronox notes that based upon a review of groundwater data from neighboring properties to the west, it appears that a plume of high concentration organics is approaching the western edge of the Tronox on-Site treatment system.

6.c.iii. Tronox notes that the groundwater treatment system operated north of the Olin property is not effective in treating beta-BHC. This system uses two stages of granular activated carbon as well as air stripping. Tronox will consider this when examining options to address beta-BHC.

6.d. Tronox will include all historical data in the electronic version of the database included with the next performance report.