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NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
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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 17, 2010

Matt Paque
Tronox LLC
3301 NW 150th
Oklahoma City, OK 73134

Re: **Tronox LLC (TRX)**
NDEP Facility ID #H-000539
Nevada Division of Environmental Protection (NDEP) Response to:
Pre-Confirmation Sampling Work Plan, Remediation Zones, RZ-A through RZ-E, Phase B Investigation, Tronox LLC, Henderson, Nevada
Dated: March 9, 2010 (Table 1 revised and re-submitted on March 15, 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 March 22, 2010** based on the comments found in Attachment A. Please advise the NDEP regarding the schedule for this resubmittal. 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 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
Fax: 702-486-5733

SH:bar:sh

EC: Jim Najima, NDEP, BCA, Carson City
Brian Rakvica, NDEP, BCA, Las Vegas
Greg Lovato, Bureau of Corrective Actions, NDEP, Carson City, NV

CC: Keith Bailey, Environmental Answers LLC, 3229 Persimmon Creek Drive, Edmond, OK 73013
Susan Crowley, C/O Tronox LLC, PO Box 55, Henderson, NV 89009
Mike Skromyda, Tronox LLC, PO Box 55, Henderson, NV 89009
Michael J. Foster, Tronox LLC, P.O. Box 268859, Oklahoma City, OK 73126-8859
Deni Chambers, Northgate Environmental, 300 Frank H. Ogawa Plaza, Suite 510, Oakland, CA 94612
Barry Conaty, Holland & Hart LLP, 975 F Street, N.W. Suite 900, Washington, D.C. 20004
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
Ebrahim Juma, Planning Manager, Air Quality and Environmental Management, 500 S. Grand Central Pkwy, 1st floor, P.O. Box 555210, Las Vegas, NV 89155-5210
Joe McGinley, McGinley & Associates, 815 Maestro Dr, Reno, NV 89511
Joe McGinley, McGinley & Associates, 8275 S Eastern Ave, Ste 200, Las Vegas, NV 89123
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
Nick Pogoncheff, PES Environmental, 1682 Novato Blvd., Suite100, 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, 10733 Wave Crest Court, Stockton, CA 95209
Joe Kelly, Montrose Chemical Corporation of CA, 600 Ericksen Avenue NE, Suite 380, Bainbridge Island, WA 98110
Jeff Gibson, AMPAC, 3883 Howard Hughes Pkwy, Ste 700, Henderson, NV 89169
Larry Cummings, AMPAC, 3883 Howard Hughes Pkwy, Ste 700, Henderson, NV 89169
Paul Hackenberry, Hackenberry Associates, LLC, 550 W. Plumb Lane B425, Reno, NV 89509
Paul Black, Neptune and Company, Inc., 8550 West 14th Street, Suite 100, Lakewood, CO 80215
Kelly Black, Neptune and Company, Inc., 8550 West 14th Street, Suite 100, Lakewood, CO 80215
Teri Copeland, Neptune and Company, Inc., 5737 Kanan Road #182, Agoura Hills CA 91301
Kurt Fehling, The Fehling Group, LLC, 936-B Seventh Street, #181, Novato, CA 94945
Joanne Otani, 2160 Santa Cruz Avenue, # 20, Menlo Park, CA 94025

Attachment A

1. General comment, at an NDEP-TRX meeting on February 22, 2010, NDEP asked what data TRX is planning on using for the post-remediation risk assessment for the calculation of cumulative risk if excavation removes some or all of the broad suite analysis data at a sampling point. (i.e. would current surface sample concentrations be used for any chemicals that didn't exceed BCLs or would the current 10 feet below ground surface (fbgs) samples be used?) To date, this issue has not been resolved and will affect the determination on whether the data collected as proposed in this Deliverable is adequate for post-remediation risk assessment. TRX should contact NDEP by **March 19, 2010** to schedule a meeting and establish the deadline for the submittal of a technical memo addressing this issue.
2. Asbestos Sampling section, page 5, please clarify whether the six to eight inches below ground surface (bgs) sample will be collected at the same time as the zero to two-inch bgs and four to six-inches bgs samples or collected as necessary in a separate sampling event after the receipt of the analytical results from the other two sampling depths.
3. Analytical Program, NDEP has the following comments:
   a. Pages 6-7, revise the bulleted text as necessary to address the comments in this letter.
   b. Page 8, Item 3, the column headings in Table 1 should be modified as indicated by the text in this paragraph (i.e. the column headings should be grouped as SVOCs including PAHs (Method 8270C) and OCPs (Method 8081A) as applicable since full suites for these analyses will be used and reported.
   c. Page 8, Items 2 and 3, TRX should clarify whether 8270B or 8270C or both will be used for the fixed lab analyses.
   d. Perchlorate was not discussed in this section. Please revise as necessary.
4. Table 1, NDEP has the following comments:
   a. Please break this Table into four separate Tables for each of the Remediation Zone Areas.
   b. TRX should indicate the cutline depth in the Rationale column for borings where the cutlines have already been established.
   c. Asbestos sampling, there is no need to separate the chrysotile sampling from the amphibole sampling as the analytical method reports both. Please revise the sampling designation to include both types of fibers so that it is clear that both types of fibers will be analyzed and reported (Please note that TRX could combine the two asbestos columns for simplicity).
   d. The following borings should indicate analysis of perchlorate at each depth through the soil column as stated in the Rationale (e.g. profile perchlorate concentration through the top ten feet of the soil column for potential soil flushing): RSAR7, SA65, SSAM4-02, SSAN4-01, SSAM5-02, RSAM5, and SA129 (soil profiling should be added to Rationale based on perchlorate concentrations).
   e. TRX should consider sampling at one foot intervals starting at 1 fbgs in the following borings because the cutline established by other contaminants (if any) is at 1 fbgs: SA63, SA43, SA42, SA40, SA51, RSAP6, SA139, RSAL3, RSAK8, SA165, SA17, and SA131.
   f. TRX should consider sampling at one foot intervals starting at 2 fbgs in the following borings because the cutline established by other contaminants is 1.5 fbgs or 2 fbgs: SA41, RSAJ2, and SA107.
   g. TRX needs to include confirmation sampling for asbestos in the following borings as confirmation samples must be collected for each analyte that is detected above the

applicable comparison levels. (Please note that the code for asbestos (3) should be added in the column for Chemical Group Code Driving Additional Sampling and a sampling depth of 4-6" should be added.): SA102, SA41, SA39, SA130, RSAP6, RSAL2, RSAK5, RSAJ5, RSAJ6, and SA86.

h. SA169, in the column for Chemical Group Code Driving Additional Sampling add the code for asbestos (3) and add a sampling depth of 4-6" for the asbestos sampling depth.
i. SA203, the cutline at this sampling point should be set at 10 fbgs because of elevated arsenic concentration at this depth.
j. SA04, arsenic is greater than background in both the surface and 10 fbgs samples. The cutline at this sampling point should be established at 10 fbgs.
k. RSAN6, TRX should re-evaluate the need for sampling of arsenic at this sampling point. The arsenic concentration at this location may be too elevated to pass a background comparison and would; therefore, have to be excavated.
l. SSAM7-03, TRX should add to the Rationale that the results of this boring could be used for refinement of the remediation polygon for SA49, which contains elevated HCB and perchlorate. As such, perchlorate should also be added for sampling and analysis.
m. SSAM7-04, in the column for Chemical Group Code Driving Additional Sampling, please add the code for HCB (2).
n. SA137, TRX should add the collection of a sample at 10 fbgs as no 10 fbgs sample was initially collected.
o. SSAL2-01, TRX should add OCP analysis to this boring to constrain RSAL2 polygon. If TRX plans on using the railroad tracks as a practical excavation constraint for RSAL2, then the samples as proposed is sufficient.
p. SSAJ8-01, TRX should consider adding arsenic to the proposed sampling for this boring.
q. SA129, TRX should add OCP analysis to this boring since 4,4-DDE and 4,4-DDT concentrations were still elevated above the BCL at 2 fbgs.
r. SA86, TRX states in the Rationale that arsenic appears to be within background but has proposed arsenic sampling. Please revise as needed.

5. Figures, NDEP has the following comments:
   a. Please clarify the status of SA205 as it is unclear whether data for this sample has been received.
   b. TRX should remove any polygons from the Figures that are listed as being within background on Table 1.
   c. Figure 1-3, exceedance data for boring SA139 should be added to this Figure.