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August 15, 2013

Compliance Administrator  
State of Nevada Division of Environmental Protection (NDEP)  
Bureau of Water Pollution Control  
901 South Stewart Street, Suite 4001  
Carson City, Nevada 89701-5249

Subject: Tronox LLC - Permit # NS2001516  
Spill Report # 130730-03 Addendum.

Dear NDEP Administrator:

Tronox LLC (Tronox) operates an inorganic chemical processing facility in Henderson, NV (Henderson facility) and maintains Permit # NEV2001516 for the operation of the synthetically lined (non-discharge) holding ponds at this facility.

On July 30, 2013 a line carrying process water discharge from the Cathode Wash in Unit 6 to the MN-2 Pond (Outfall 004) came un-mounted from its location along the southern berm of the MN-2 Pond. This resulted in process water spilling down the pond berm and onto adjacent soil. The release was estimated at 2,700 gallons of non-hazardous process water onto the ground (~4,500 ft<sup>2</sup> area). Upon detection, the discharge to this pipe was immediately shut off, the line was secured and samples were taken. To prepare for cleaning the contaminated soils were immediately flagged off and isolated. There was no discharge off factory site.

As required by Permit # NS2001516 Condition II.A.4, this event was promptly reported to NDEP (Spill Hotline, Report # 130730-03). This event was also reported to the Nevada Environmental Response Trust (NERT) through ENVIRON (Ms. Nita Shinn). On July 31, 2013 Tronox submitted a Spill Clean-up Plan to NDEP for approval. The Spill Clean-up Plan was approved by NDEP on August 1, 2013. Upon plan approval Tronox personnel proceeded with the clean-up, placing the impacted soil in a plastic lined roll-off container for evaluation and disposal. The clean up was completed on August 2, 2013. The cleaned area was inspected by Kyle Hansen of GES (NERT representative) and Michael Skromyda, Tronox Environmental Engineer. Following the inspection, conformation soil samples were taken and sent for analysis. Process knowledge of the process water spilt indicated 3 key parameters could be used as a tracer for the spill's impact on the soil. These three analytes are: Manganese, Sulfates and Copper.

Table I below lists the analytical results of both the initial sampling of process water and soil along with the post clean-up confirmation samples.

Tronox LLC

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Table I  
Process Water and Soil Sample Analyses

	Process Water (mg/L)	Impacted Soil (dry) (mg/kg)	Non-impacted Soil (dry) (mg/kg)	Conf. Sample #1 (dry) (mg/kg)	Conf. Sample #2 (dry) (mg/kg)	Conf. Sample #3 (dry) (mg/kg)	NDEP 2012 Worker BCL <sup>1</sup> or Site Specific Soil Screening Levels <sup>2</sup> (mg/kg)
pH	11.0 (SU)	NA	NA	NA	NA	NA	NA
Sulfates	47,000	24,885	1,716	7,831	7,432	6,615	---
Manganese	1,200	12,069	787	1,631	3,515	1,575	24,927
Copper	1,300	1,618	15	196	502	70	42,200

<sup>1</sup> From User's Guide and Background Technical Document for Nevada Division of Environmental Protection (NDEP) Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas, Rev. 7, January 2012. Values for the worker are the lower of the indoor and outdoor worker soil BCLs. Any user of this table should use the most current version of the BCLs. Please check the NDEP website (<http://ndep.nv.gov/bmi/technical.htm>)

<sup>2</sup> Referenced from Site Management Plan (SMP) Nevada Environmental Response Trust, Clark County NV, Revised April 2012 with May 2012 Errata.

As shown in Table I above, the confirmation samples were significantly below the NDEP Site Specific Soil Screening Levels noted in Henderson facility's Site Management Plan. Therefore, Tronox proposes to ship the impacted soil collected during the clean-up to Republic Services Apex Landfill, consider the site clean-up adequate and not remove any additional soil. Photographs of the spill site and post clean-up have been attached.

If there are any questions or comments regarding this submittal, please feel free to contact Mike Skromyda at (702) 651-2228.

Sincerely,

Fredrick R. Stater  
Plant Manager

Attachments: Site pictures.

cc: Mike Skromyda, Tronox (electronic copy)  
 Matt Paque, Tronox (electronic copy)  
 John Hatmaker, Tronox (electronic copy)  
 John Holmstrom, Tronox (electronic copy)  
 Jack Luna, Tronox (electronic copy)  
 Jay Steinberg, Trustee, Nevada Environmental Response Trust (electronic copy)  
 Ms. Katrina Pascual, NDEP (electronic copy)  
 Weiquan Dong, P.E. (electronic copy)  
 James Dotchin, NDEP (electronic copy)  
 John Pekala, ENVIRON (electronic copy)  
 Kyle Hansen, GES (electronic copy)

Attachment



Fig.1.  
Spill Area on top of the MN-2 Pond Berm ( 7/30/13).



Fig. 2.  
Post clean-up picture (8/2/13) of the top of the MN2 Pond berm where the spill was generated.

Attachment



Fig. 3.

Spill flowed north along the bottom of the eastern berm of the MN-2 Pond (7/30/13).



Fig. 4.

Post clean-up picture north along the bottom of the eastern berm of the MN-2 Pond (8/2/13):.