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December 10, 2010

Ms. Shannon Harbour, P.E.
901 South Stewart Street
Carson City, Nevada 98701

Subject: Response to Nevada Division of Environmental Protection (NDEP) letter
RE: Pond AP-5, dated November 30, 2010

Dear Ms. Harbour,

This letter is in response to the Nevada Division of Environmental Protection's (NDEP's) letter dated November 30, 2010, requesting information regarding the decommissioning of the AP-5 pond at the Tronox Henderson Site (the Site). This letter includes a status update on the pond work and specific responses to your questions in a Response to Comments format.

Pond History

The approximately 0.8 acre double lined AP-5 pond is the last of six ammonium perchlorate process ponds in service on the Tronox site. Four of the other five ponds have been emptied and pond liners removed. The AP-6 Pond is empty, but the liners remain in place for possible use should an emergency situation arise. As the five other AP Ponds were removed from service, residual solids were transferred to the AP-5 Pond. The solids included insoluble materials such as sand and cellulose filter aid. A hard, sandstone-like, layer of sodium chloride and filter aid is present on the bottom of the AP-5 pond.

Tronox evaluated options for disposing of the AP-5 contents, ranging from shipping pond materials to ammonium perchlorate manufacturers for recycling, shipment of pond contents to incinerators for destruction, and destruction in an expanded on-Site biological treatment plant. The last option was selected as being the most cost effective. An Administrative Order on Consent dated April 12, 2005, between Kerr-McGee Chemical Corp. (now Tronox) and the State of Nevada, requires that the pond be decommissioned and the liners be removed within five years of commencement of the remediation process. Tronox began removing perchlorate-

containing solution from the pond in August 2006, requiring completion of the work by August 2011.

Closure Activities

Pond solutions saturated with perchlorate (starting at up to 113 g/L) have been transferred to the GW-11 Pond and subsequently to the biological treatment plant. Pond solids, including perchlorate crystals, were covered with solution to prevent the materials from drying out. As solutions were pumped from the pond, stabilized Lake Mead water has been added to dissolve additional perchlorate and other soluble pond contents. Recent solution transfers from the AP-5 Pond to the GW-11 Pond have contained about 8 g/L perchlorate. A total of 1295 tons of perchlorate has been transferred from AP-5 to the GW-11 pond since closure activities commenced in August 2006.

In 2008, residual pond solids were sampled being careful not to damage the pond liners. Residual perchlorate in pond solids was identified in the northwest corner of the pond. Pond solids in the other three quadrants contained minimal perchlorate. Subsequent pond mixing has focused on the northwest quadrant.

Northgate Environmental Management has negotiated a contract with Veolia Environmental Services to complete removal of the AP-5 contents and decommission the pond. The work is estimated to require about 60 days. Residual solids will be broken up/dissolved using high pressure water jet nozzles. Solutions will be transferred to the GW-11 pond for subsequent feeding to the bioplant. Remaining solids will be washed to reduce residual perchlorate concentrations below 1 percent. After filtering on one of the bioplant filter presses, the solids will be shipped to the Apex Landfill, north of Las Vegas. Once solids removal is complete, the pond liners will be removed and shipped to the landfill. Soils underlying the liners will be tested for perchlorate. Since the pond liners are intact (as evidenced by the absence of water in the leachate collection well), minimal soil contamination is expected.

Responses to NDEP Comments

Comment:

*NDEP is requesting that TRX provide a summary report regarding remediation and other activities at Pond AP-5 by **December 10, 2010**. The report should, at a minimum, include the following information:*

- 1. A summary of the work to date that includes the mass of perchlorate removed.*
- 2. The commencement date of remediation activities.*

3. *Expected completion of the remediation and decommissioning of Pond AP-5.*
4. *Electronic copies of the Monthly Progress Reports as required by Section IV.1 of the 2005 Administrative Order on Consent. Please note TRX should include documentation of any approved reporting schedule changes.*

Response:

1. To date, 1295 tons of perchlorate have been removed from the AP-5 Pond. See sections above for work summary.
2. Solids removal activities will begin in February 2011.
3. The contract with Veolia Environmental Services specifies that the AP-5 Pond will be decommissioned (i.e., removal of the pond contents and liners) within 60 days.
4. Progress reports initially started out on a monthly basis. As shown in the AOC, NDEP agreed that after August 2006 Tronox would submit the perchlorate removal data as part of Quarterly Perchlorate Remediation Reports. Following NDEP agreement to eliminate Quarterly reports in favor of Semi-Annual Reports, the AP-5 tonnages have been reported in the Semi-Annual Reports for the last two years. Copies of e-mails supporting the changes in reporting frequency are maintained in files held by Susan Crowley at the Tronox Site. Susan has been on vacation for the past two weeks and is expected to be back in the office next week. When she returns, she can supply copies of the requested e-mails.

Comment:

Additionally, NDEP contractors have observed and taken photos (attached) indicating discharge of material to Pond AP-5 on September 16, 2010 and September 23, 2010. NDEP requests that TRX provide a detailed explanation of these discharge events. At a minimum, this explanation should include, a description (including any analytical data) of the material being placed in Pond AP-5, the origin of this material, the permit under which this discharge is allowed, and any impacts this discharge may have to the remediation schedule of Pond AP-5. If this is a periodic discharge to Pond AP-5, please include the schedule for discharge.

Response:

The NDEP contractors are mistaken. The pond shown in the photographs is not AP-5. Note that the tanks in the background are located on the Timet Site, east of the Tronox property. The photo captions indicate that the pictures are “looking northwest toward AP-5”, when in fact they are looking east and southeast. The activity shown in the photos is part of the ongoing MnO₂ plant operations.

If you have further questions, please contact us.

Sincerely,

A handwritten signature in black ink, appearing to read 'M Paque', with a long horizontal flourish extending to the right.

Mathew Paque
Associate Staff Counsel