Environmental Covenants, Institutional and Engineering Control Plan
Tronox LLC
Henderson, Nevada

November 19, 2010

Prepared For:

Tronox LLC
560 West Lake Mead Parkway
Henderson, Nevada 89015

Prepared By:

Northgate Environmental Management, Inc.
300 Frank H. Ogawa Plaza, Suite 510
Oakland, California 94612

Deni Chambers, CEM
Principal-in-Charge

Derrick Willis, CEM
Project Manager

TABLE OF CONTENTS

TABLE

FIGURES

APPENDICES

1.0 INTRODUCTION

This Environmental Covenants, Institutional and Engineering Control Plan for the Tronox Facility, located in Henderson, Nevada (the IC/EC Plan) describes the proposed institutional and engineering controls for specified areas at the Tronox Henderson facility (the Site). The Site location is shown in Figure 1.

The IC/EC Plan has incorporated comments from the Nevada Division of Environmental Protection (NDEP) and addressed issues identified by NDEP in letters to Tronox dated June 4, 2010, July 30, 2010, August 31, 2010, September 14, 2010 and November 5, 2010. Our responses to NDEP's November 5, 2010 comment letter are provided as Appendix B of the IC/EC Plan.

The objectives of the IC/EC Plan are to:

- Identify areas of the Site where institutional controls or engineering controls will be needed based upon our current understanding of chemical concentration data, facility operations, and Site features; and
- Establish a process for the long-term implementation of the above controls through the use of environmental covenants, as authorized by NRS 445D.010 *et seq*.

During our meeting on February 5, 2010, NDEP discussed its previous experience regarding the use of environmental covenants at other sites. We understand that the regulatory approval process may take considerable time, and that the property owner (currently Tronox, although beginning in January 2011 the property will be the responsibility of the Tronox Trust) would bear the burden of proof to ensure that an environmental covenant will be protective to potential receptors. We also understand that an environmental covenant must be recorded with the County Recorder for each of these areas.

1.1 Institutional and Engineering Controls

"Institutional controls" (IC) refer to administrative and/or legal measures that minimize the potential for human exposure to contamination by limiting land or resource use. Some examples of institutional controls include easements, covenants, well drilling prohibitions, zoning restrictions, and special building permit requirements. Institutional controls are often used in conjunction with engineering measures such as waste treatment or containment actions.

"Engineering controls" (EC) refer to physical measures to minimize the potential for migration of contaminants or to prevent exposure to contamination. Examples of typical engineering controls include slurry walls to prevent migration of groundwater, surface caps to prevent

erosion of soil or human contact with soil, and vapor barriers to prevent the intrusion of volatile organic compounds into buildings.

1.2 Environmental Covenants

"Environmental covenants" refer to the statutory process for implementing, modifying, terminating and enforcing activity and use limitations, including institutional and engineering controls, as set in NRS 445D.010 *et seq*.

1.3 Current Use of Site

The Site has been used since the early 1940s for industrial purposes. Ongoing operations at the Site include the manufacture of manganese dioxide, boron trichloride, and elemental boron. The Tronox facility operates 24 hours a day, seven days a week, and employs approximately 90 workers. Existing Site improvements include over 15 buildings to support these manufacturing operations (Figure 2). Other improvements include wastewater retention/treatment ponds, high-voltage electrical lines, gas lines, the groundwater collection and treatment system, access roads, rail spurs, and various other features.

Buildings and other facilities that are currently operational at the Site include the following:

- Unit Buildings 1 through 6 and associated piping;
- Mn-1 Operational Pond;
- Leach Plant;
- Steam Plant;
- Maintenance Shop;
- Laboratory;
- Groundwater collection and treatment facilities and BT equalization tanks;
- GW-11 and WC-West and WC-East Ponds
- Electrical Substations;
- Historic hazardous waste storage pad (two tanks in lined basin now overlie this area);
- Aboveground diesel storage tanks;
- Active Railroad Track Area parallel to and north of Avenue G; and
- High voltage electric power transmission towers.

1.4 Potential Future Uses of Site

The Site is zoned as "Industrial". Contemplated future uses include both industrial and commercial development. There is no plan to use any part of the Site for residential purposes, schools, hospitals, or other potentially sensitive land uses. Therefore, the potential need for institutional and engineering controls and our identification of the specific locations where those institutional and engineering controls will be implemented is predicated on the continued industrial or commercial use of the Site. Tronox is willing to implement deed restrictions to guard against the possibility of changes in land use in the future.

2.0 PLANNED INSTITUTIONAL AND ENGINEERING CONTROL AREAS

2.1 Areas of Site with Soil Exceeding Remedial Goals

Chemicals of concern (COCs) in Site soils include perchlorate, asbestos, arsenic, dioxin/furans, volatile and semi-volatile organic compounds (VOCs and SVOCs) and others. It is Tronox's intent to remediate all contaminated soils where feasible. "Contaminated soil" is generally defined as soil with chemical concentrations exceeding NDEP worker Basic Comparison Levels (BCLs) (or modified risk-based goals as agreed upon by NDEP) or leaching-based site-specific levels (LSSLs). For metals where background concentrations exceed BCLs (e.g., arsenic), "contaminated soil" is defined as soil with chemical concentrations that result in a determination that concentrations are greater than background for the whole of the remediation zone (RZ). There are no NDEP BCLs for asbestos; therefore, "contaminated soil" is defined as soil that contains one or more long fibers (amphibole) and/or five or more long fibers (chrysotile).

In areas of the Site where existing infrastructure or facility operations preclude the removal (excavation) of contaminated soil, ICs, ECs, and alternative remedial methods are being considered, as appropriate for the specific contaminants. For example, we are currently evaluating the feasibility of remediating perchlorate-impacted soils at depth using soil flushing or other remedial alternatives, and therefore these areas are not currently proposed for ICs or ECs.

Areas of the Site that are proposed for ICs or ECs are identified in Table 1 and Figure 3. It would be technically infeasible or cost-prohibitive to remediate most of these areas because they are located beneath existing operational facilities or within critical utility corridors where excavation would be unsafe and/or would likely damage utilities. Note that there are no areas proposed for ICs/ECs north of the groundwater and WC ponds.

The COCs in the areas where ICs and ECs are being proposed are the following:

- dioxin
- benzo(a)pyrene (B(a)P)
- asbestos
- arsenic
- perchlorate (only co-located with other COCs)
- hexachlorobenzene (HCB)
- manganese

For the above chemicals, the presence of buildings or pavement on top of contaminated soil results in that soil being "capped", and as such, the building or pavement provides the engineering control to prevent or greatly reduce potential exposure pathways. Areas where ICs and ECs are being requested will also be shown on the individual Remediation Zone Excavation Plans. The next section of this IC/EC Plan provides a discussion of the rationale for implementing ICs and ECs and identification of the specific areas where ICs and ECs are proposed.

2.2 Areas of the Site Planned for Engineering and Institutional Controls

The two reasons for utilizing ICs and ECs in different areas of the Site are the following:

- Contaminated soil areas are located beneath existing, operational structures, and it is technically infeasible or cost prohibitive to access these areas for excavation; and
- Contaminated soil areas are located in close proximity to utilities or other Site features (e.g., the active pond berms), and excavating soil in these areas poses a potential safety hazard and/or could result in damage to the utilities/features.

The following set of decision rules was developed to determine the extent of the IC/EC areas.

1. Unless a utility line is known to be non-active, we assume all utility lines are active.
2. Protect all active utility lines.
3. No excavation within 5 feet of water lines.
4. No excavation within 10 feet of railroad lines.
5. No excavation within 2 feet of all other utility lines.
6. Excavations that are 3 feet deep or less have vertical sides.

7. Excavations that are deeper than 3 feet have a 1:1 slope, unless otherwise noted.
8. Excavations next to concrete foundations or footings are sloped at 2:1, starting below the top of the foundations.

Table 1 lists the rationale for the ICs/ECs, the specific Site features that could be impacted by excavation, the RZs that are associated with the proposed IC/EC areas, the assessor's parcels associated with each IC/EC area and the volume of soil associated with each IC/EC area. This IC/EC Plan provides individual figures for each IC/EC area showing the details of each area (Figures 5 through 25), and the legend for the individual IC/EC area figures is provided in Figure 4. Text describing each of the IC/EC areas and the rationale for implementing ICs/ECs in these areas is provided below. In addition to specific IC/EC measures that will be implemented in each of the IC/EC areas, a legal description will be prepared for the IC/EC areas once the RZ excavations are complete. This description will identify the parcel the control area is located in and will provide a surveyed description of the location of I/E 19 within the parcel.

2.2.1 I/E 01: Footings for Overhead Utility Rack

The overhead utility rack extends across RZ-B-06, RZ-B-07, RZ-10, RZ-12 and RZ-13, although RZ-B-07 is the only excavation polygon that is affected by the overhead utility rack. The footings for the overhead utility rack poles are three feet in diameter, and extend to 6.5 feet below the ground surface (bgs). RZ-B-07 extends to a depth of 10 feet bgs and is the only excavation area that could potentially undermine the footings for the overhead utility rack poles. Therefore, the portion of RZ-B-07 where the overhead utility rack pole is located is designated as I/E 01, and this area cannot be completely excavated because of concern that the excavation would undermine the concrete footing for the utility rack pole. I/E 1 is shown on Figure 5, and is located in APN 17813101002. Table 1 includes a summary of the excavation polygons that will be impacted by ICs/ECs in this area, the depth of excavation for each polygon and the volume of contaminated soil that will remain in place in each excavation polygon. We currently estimate that the total volume of impacted soil that will remain in place in I/E 1 is 218 cubic yards.

The excavation for RZ-B-07 will utilize a slope of 1.5:1, and therefore the area for I/E 1 is a 33 foot diameter circle (3 feet for the utility pole footing and 15 feet around the footing to account for a 1.5:1 slope down to 10 feet bgs). Because some contaminated soil will remain in place an institutional control, which requires that soil excavations in this area be performed in accordance with the procedures outlined in the Risk Management Plan, will be implemented to protect human health and the environment until the contaminated soil is removed.

2.2.2 I/E 02: Sodium Chlorate Filter Cake Process Area

The sodium chlorate filter cake process area is part of the boron and boron trichloride process operations and cannot be removed. The concrete slab for the process area is located in RZ-B-13, and is approximately 45’ x 50’ x 2’ thick. Therefore, the portion of RZ-B-13 that cannot be excavated is designated as I/E 2 as shown on Figure 6. I/E 2 is located in APN 17812801001. Information related to I/E 2, including the COCs present in RZ-B-13 and the maximum depth of excavation, is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 15 cubic yards. The concrete slab will function as an engineered control, capping the contaminated soil and preventing or greatly limiting the potential for contact with contaminated soil.

2.2.3 I/E 03: Footings for Overhead Pipe Rack

An overhead pipe rack located in RZ-B-20 and RZ-B-21 supports live utilities. The footings for the poles supporting the pipe rack extend 3 feet below grade, and both the pipe rack and the footings cannot be removed. Portions of RZ-B-20 and RZ-B-21 cannot be excavated because of concern that the excavations would undermine the concrete footings for the utility rack poles and these areas are designated I/E3, as shown on Figure 7. I/E3 is located in APN 17813501001. Information regarding I/E3, including a summary of the excavation polygons that will be impacted by ICs/ECs in this area, the depth of excavation for each polygon and the volume of contaminated soil that will remain in place in each excavation polygon is provided in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 66 cubic yards.

An area approximately 5 feet in diameter will be retained around the footings to ensure sufficient soil support for the footings. Below a depth of 3 feet, the excavations in this area will utilize a slope of 1:1 in order to remove the maximum amount of contaminated soil while maintaining the integrity of the concrete footings. This area is unpaved, and an institutional control will be implemented at I/E 03 to protect human health and the environment until the contaminated soil is removed. The IC will require that soil excavations in this area be performed in accordance with the procedures outlined in the Risk Management Plan.

2.2.4 I/E 4: Unit Building 1

Excavation polygons RZ-B-01 and RZ-B-04 extend under the footprint of Unit Building 1. This building cannot be demolished as part of Site remediation or redevelopment activities. Because of the building obstruction, portions of these excavation polygons will not be excavated. Unit

Building 1 will function as an engineered control, capping the soil and preventing or greatly limiting the potential for contact with contaminated soil. I/E 4 is located in APN 17813101002, and the extent of I/E 4 is shown on Figure 8. Table 1 includes a summary of the excavation polygons that will be impacted by ICs/ECs in this area and the depth of excavation for each polygon. Because the extent of contamination beneath Unit Building 1 is not known, we have not estimated the volume of impacted soil that will remain in place in this area.

2.2.5 I/E 05: Unit Building 2

Excavation polygons RZ-B-06 and RZ-B-07 extend under the footprint of Unit Building 2. This building is currently used for chlorine line support and this area also includes an electrical substation, and cannot be demolished as part of Site remediation or redevelopment activities. Because of the building obstruction, portions of these remediation zones will not be excavated. Unit Building 2 will function as an engineered control, capping the soil and preventing or greatly limiting the potential for contact with contaminated soil. I/E 5 is located in APN 17813101002, and the extent of I/E 5 is shown on Figure 9. Table 1 includes a summary of the excavation polygons that will be impacted by ICs/ECs in this area and the depth of excavation for each polygon. Because the extent of contamination beneath Unit Building 2 is not known, we have not estimated the volume of impacted soil that will remain in place in this area.

2.2.6 I/E 06: Unit Building 3

Excavation polygons RZ-B-12 and RZ-B-13 extend to the edge of Unit Building 3. This building is still active and cannot be demolished as part of Site remediation or redevelopment activities. Because of the building obstruction, portions of these excavation polygons may not be excavated, although it is possible that contaminated soil does not extend under Unit Building 3 and an environmental covenant may not be required in this area. In the event that soil contamination does extend under the building, Unit Building 3 will function as an engineering control, capping the soil and preventing or greatly limiting the potential for contact with contaminated soil. I/E 6 is located in APNs 17813501001, 17813101002, and 17812801001. The extent of I/E 6 is shown on Figure 10. Table 1 includes a summary of the excavation polygons that will be impacted by ICs/ECs in this area and the depth of excavation for each polygon. Because the extent of contamination beneath Unit Building 3 is not known, we have not estimated the volume of impacted soil that will remain in place in this area.

2.2.7 I/E 07: Unit Building 4

Excavation polygons RZ-B-19 and RZ-B-20 extend under the footprint of Unit Building 4. This building is still active and cannot be demolished as part of Site remediation or redevelopment activities. Because of the building obstruction, portions of these excavation polygons will not be excavated. Unit Building 4 will function as an engineering control, capping the soil and preventing or greatly limiting the potential for contact with contaminated soil. I/E 7 is located in APNs 17813501001 and 17812801001. The extent of I/E 7 is shown on Figure 11. Table 1 includes a summary of the excavation polygons that will be impacted by ICs/ECs in this area and the depth of excavation for each polygon. Because the extent of contamination beneath Unit Building 4 is not known, we have not estimated the volume of impacted soil that will remain in place in this area.

2.2.8 I/E 08: Unit Building 5

RZ-B-22 extends under the footprint of Unit Building 5. This building is still active and cannot be demolished as part of Site remediation or redevelopment activities. Because of the building obstruction, a portion of RZ-B-22 will not be excavated, and this area is designated as I/E7, as shown on Figure 11. I/E 7 is located in APNs 17813501001 and 17812801001. Table 1 includes a summary of the excavation polygons that will be impacted by ICs/ECs in this area and the depth of excavation for each polygon. Unit Building 5 will function as an engineering control, capping the soil and preventing or greatly limiting the potential for contact with contaminated soil. Because the extent of contamination beneath Unit Building 5 is not known, we have not estimated the volume of impacted soil that will remain in place in this area.

2.2.9 I/E 09: Chemstar Plant Road

The road into the Chemstar plant is active and used by trucks entering and exiting the plant, and excavation cannot be performed in the road. Excavation polygons RZ-C-26 and RZ-C-27 extend underneath the road that leads into the Chemstar plant. Because this road is part of ongoing operations at the Chemstar plant, it is not possible to excavate in the area of the road, and the southern limit of this excavation must be moved to the north side of the pavement. This area is designated as I/E 09, as shown on Figure 13. I/E 9 is located in APNs 17813501001 and 17812801001, and the extent of I/E 9 is shown on Figure 13. Table 1 includes a summary of the excavation polygons that will be impacted by ICs/ECs in this area, the depth of excavation for each polygon and estimated volume of contaminated soil that will remain in place in each excavation polygon. We currently estimate that the volume of impacted soil that will remain in place in this area is 332 cubic yards. The road is paved with asphaltic concrete, and this road functions as an engineered control, capping the soil and preventing or greatly limiting the potential for contact with contaminated soil.

2.2.10 I/E 10: Steam Plant and Associated Features

The steam plant and associated utilities and infrastructure in the vicinity of the steam plant, including pipe rack pole footings, the pole & vault for the 15 kv transmission line, a 15 kv transformer pad and multiple concrete equipment pads adjacent to the plant cannot be removed. RZ-C-16 and RZ-16A extend into the vicinity of the steam plant. Because of these obstructions, a portion of RZ-C-16 and RZ-16A cannot be excavated, and this area is designated as I/E10, as shown in Figure 14. I/E 10 is located in APN 17812701001, and Table 1 includes information related to I/E 10, including a summary of the excavation polygons in this area, the depth of excavation for each polygon and estimated volume of contaminated soil that will remain in place in each excavation polygon. We currently estimate that the volume of impacted soil that will remain in place in I/E 10 is 321 cubic yards.

The area around the concrete footings for the pipe rack poles cannot be excavated to the design depth without undermining the footings. We will investigate the size and depth of the pole footings prior to beginning remediation in this area. Soil will be excavated to a depth of one foot above the top of the footings, to ensure sufficient soil support for the footings. Below this depth, the excavations in this area will utilize a slope of 1:1 in order to remove the maximum amount of contaminated soil while maintaining the integrity of the concrete footings; however, some contaminated soil will remain in place, and both institutional and engineered controls will be implemented to protect human health and the environment until the contaminated soil is removed. The concrete pads and the steam plant slab will function as engineering controls, capping the soil and preventing or greatly reducing the potential for contact with contaminated soil. Areas where there are no concrete pads or other obstructions will be excavated to the design depth. An institutional control will also be implemented at I/E 10 to protect human health and the environment until the contaminated soil is removed. The IC will require that soil excavations in this area be performed in accordance with the procedures outlined in the Risk Management Plan. We currently estimate that the volume of impacted soil that will remain in place in this area is 321 cubic yards.

2.2.11 I/E 11: Gas Lines, Meters and Telemetry Wiring

Excavation polygons RZ-C-17, RZ-C-19, RZ-C-20 and RZ-C-23 extend into an area where there are gas lines, gas meters, and telemetry wiring. These features are active, cannot be removed, and excavating in this area could potentially damage these features. Therefore, these portions of RZ-C-17, RZ-C-19, RZ-C-20 and RZ-C-23 cannot be excavated and this area is designated as I/E 11, as shown on Figure 15. I/E 11 is located in APN 17812801001, and information related to this control area, including the volume of soil impacted in each of the excavation polygons, the

COCs in each polygon and the maximum depth of excavation is presented in Table 1. We currently estimate the volume of impacted soil that will remain in place is 394 cubic yards.

This area is unpaved, and an institutional control will be implemented at I/E 11 to protect human health and the environment until the contaminated soil is removed. The IC will require that soil excavations in this area be performed in accordance with the procedures outlined in the Risk Management Plan.

2.2.12 I/E 12: Diesel Tank

The diesel tank and the tank containment structure cannot be removed and RZ-C-22, RZ-C-23 and RZ-C-27 extend underneath the tank containment structure. Therefore, portions of these excavation polygons cannot be excavated and this area is designated as I/E 12, as shown on Figure 16. I/E 12 is located in APN 17812801001 and information related to this control area, including the amount of impacted soil in the excavation polygons, the COCs for each polygon and the maximum depth of excavation is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 351 cubic yards.

The containment structure will function as an engineered control, capping the soil and preventing or greatly limiting the potential for contact with contaminated soil. The power poles and wiring coming from the east and the piping going west from the tank may be temporarily taken out of service to facilitate removing as much contaminated soil as possible from this area.

2.2.13 I/E 14: NV Energy Transmission Line Towers

Excavation cannot be performed within 10 feet of the NV Energy Transmission Line towers present on the Site. NV Energy policy prohibits excavating within 10 feet of the footings for the towers. RZ-D-01B, RZ-D-02, RZ-D-03, and RZ-D-12 extend into this area and therefore, portions of these RZs cannot be excavated. This area is designated as I/E 14, as shown on Figure 17. I/E 14 is located in APNs 17812202004 and 17812301003 and information related to this control area, including the amount of impacted soil in the excavation polygons, the COCs for each polygon and the maximum depth of excavation is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 963 cubic yards.

This area is unpaved, and an institutional control will be implemented at I/E 14 to protect human health and the environment until the contaminated soil is removed. The IC will require that soil excavations in this area be performed in accordance with the procedures outlined in the Risk Management Plan. Additionally, excavations adjacent to I/E 14 will utilize a slope of 1.5:1 in

order to remove the maximum amount of contaminated soil removed while maintaining the integrity of the concrete footings.

2.2.14 I/E 16: Groundwater Treatment System Equalization Tanks

Equalization tanks for the groundwater treatment system are actively used by Veolia and cannot be removed. RZ-D-15, RZ-D-18 and RZ-D-17C extend beneath the equalization tanks, and therefore portions of these excavation polygons cannot be excavated. This area is designated as I/E 16, and is shown on Figure 18. I/E 16 is located in APNs 17812201004 and information related to this control area is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 343 cubic yards, assuming an average excavation depth of 2 feet over this entire control area. The equalization tanks are on concrete pads, and the pads will function as an engineered control, capping the soil and preventing or greatly reducing the potential for contact with contaminated soil.

2.2.15 I/E 17: GW-11 Pond and Berms and WC Ponds and Berms

The groundwater ponds and berms and the WC ponds and berms are actively used by Tronox and cannot be removed. The berms around the ponds contain contaminated soil, but this soil cannot be excavated because of the potential to compromise the integrity of the ponds. Therefore this area has been designated as I/E17, as shown in Figure 19. The perchlorate remediation process pipelines are located within I/E 17, and the boundaries for I/E 17 in the vicinity of these pipelines were developed, in part, utilizing a 10 foot offset from the top of the perchlorate remediation process pipelines, and an excavation that is sloped 3:1 to the design excavation depth. I/E 17 is located in APNs 17812201004, 17812301003 and 17812601004 and information related to this control area is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area, including the GW-11 Pond, the WC Ponds and the berms for these ponds is 408,658 cubic yards. This estimate assumes an average excavation depth over the entire area of 5 feet.

Northgate's *Revised Engineering Evaluation of Slope Stability, WC and GW-11 Pond Embankments,* dated October 18, 2010 has been submitted to NDEP. This revised slope stability evaluation proposes to extend excavation slopes below the ground surface at an inclination of 3:1 to design depths. The embankments and the area from the toe of the embankment to the toe of the adjacent excavation will be capped at the surface with asphaltic chipseal, and this engineered control will prevent dust generation and greatly reduce the potential for contact with the contaminated soil.

2.2.16 I/E 18: Former Hazardous Waste Storage Area

The former hazardous waste storage area is beneath two tanks used by Tronox and cannot be completely removed. RZ-B-07A, RZ-B-08, and RZ-B-09 extend into the hazardous waste storage area, and therefore portions of these excavation polygons cannot be excavated. This area has been designated as I/E17, as shown in Figure 19. I/E 17 is located in APN 17812401009 and 17813101002 and information related to this control area including the volume of soil impacted in each of the excavation polygons, the COCs in each polygon and the maximum depth of excavation is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 627 cubic yards.

The hazardous waste storage area is overlain by high density polyethylene sheeting for containment of tank contents, and this sheeting will function as an engineered control, capping the soil and preventing or greatly limiting the potential for contact with contaminated soil.

2.2.17 I/E 19: Chemstar Road (Avenue F) Fire Line and Utility Lines

There are a variety of utility lines that run beneath Avenue F in the vicinity of RZ-C-06, including a water line, a storm drain and a fiber PC duct. These utilities are active and will not be removed. RZ-C-06 extends to a depth of 9 feet bgs, and excavation in this area to that depth will encounter these utility lines. Therefore, the portion of RZ-C-06 that overlies these utilities is designated as I/E 19, as shown on Figure 21. I/E 17 is located in APN 17812401005 and information related to this control area including the volume of soil impacted in RZ-C-06, the COCs in RZ-C-06 and the maximum depth of excavation is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 2,086 cubic yards.

Avenue F and the pavement adjacent to the road will be the engineered control for I/E 19. The excavation for RZ-C-06 adjacent to I/E 19 will utilize a slope of 1:1 to a depth of 9 feet bgs. Because of the fragility of the water lines, we will not excavate within 5 feet of the water line. Therefore, I/E 19 extends 14 feet north of the water line.

2.2.18 I/E 20: Chemstar Road Railroad Line and Utility Lines

There are a variety of utility lines that run beneath Avenue F in the vicinity of RZ-C-09B, RZ-C-12, RZ-C-13 and RZ-C-13A, including a water line, a storm drain, a fiber PC duct and an electrical conduit. Additionally, a railroad line runs through portions of RZ-C-11 and RZ-C-13a. Both the utilities and the railroad line are active and will not be removed. RZ-C-12 extends to a depth of 11 feet bgs, and excavation in this area to that depth will encounter these utility lines.

The portions of RZ-C-09B, RZ-C-12, RZ-C-13 and RZ-C-13A that overlie these features are designated as I/E 20 as shown on Figure 22. I/E 20 is located in APNs 17812401005, 17812401006, and 17812401004 and information related to this control area including the volume of soil impacted in these excavation polygons, the COCs in the excavation polygons and the maximum depth of excavation is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 3,300 cubic yards. Avenue F and the pavement adjacent to the road and the railroad tracks will function as an engineered control for I/E 19.

2.2.19 I/E 21: Chemstar Road and Utility Lines

There are a variety of utility lines that run beneath the Chemstar Road (Avenue F) in the vicinity of RZ-C-15 including a water line, an electrical conduit and a domestic water line. These utilities are active and will not be removed. The portion of RZ-C-15 that overlies these utilities is designated as I/E 21, as shown on Figure 23. I/E 21 is located in APN 17812401006 and information related to this control area including the volume of soil impacted in RZ-C-15, the COCs in RZ-C-15 and the maximum depth of excavation is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 25 cubic yards. Avenue F and the pavement adjacent to the road and the railroad tracks will function as an engineered control for I/E 19.

2.2.20 I/E 22: 9th Street Utility Lines

There are a variety of utility lines that run beneath 9th Street in the vicinity of RZ-C-22B including a fiber PC duct, a gas line, a sanitary sewer line, a water line, and a tailing line. All of these utilities are active and will not be removed. RZ-C-22B extends to a depth of 8 feet bgs, and excavation in this area to that depth will encounter these utility lines. Therefore the portion of RZ-C-22Bb that overlies these features is designated as I/E 22, as shown on Figure 24. I/E 22 is located in APN 17812401001 and information related to this control area including the volume of soil impacted in RZ-C-22B, the COCs in RZ-C-22B and the maximum depth of excavation is presented in Table 1. We currently estimate that the volume of impacted soil that will remain in place in this area is 1,592 cubic yards. 9th Street and the pavement adjacent to the road will function as an engineered control for I/E 22.

2.3 Environmental Covenant Plan Development and Implementation

Once NDEP approves the proposed ICs and ECs, Tronox will prepare an environmental covenant which will include a detailed map of the areas, a listing of the ICs and ECs to be implemented, and environmental covenant language to be officially recorded for NDEP's approval.

2.4 Preparation of Risk Management Plan

Tronox is currently preparing an Environmental Risk Management Plan (ERMP) that describes the ICs and ECs that have been implemented at the Site. Additionally, the ERMP describes the soil, soil vapor, and groundwater management procedures to be followed to prevent inadvertent migration of COCs or potential exposure to COCs during Site activities. As appropriate, institutional controls, environmental covenants, and the ERMP may be memorialized in an environmental covenant, as authorized by NRS 445D.010 *et seq*.

TABLES

FIGURES

APPENDICES