ONSITE ASSESSMENT
OF
FORMER BORG WARNER – MORSE CHAIN FACILITY
620 AURORA STREET
ITHACA, NEW YORK

PREPARED
BY
ENVIRONMENTAL STRATEGIES CONSULTING LLC

DECEMBER 13, 2005
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<td>aboveground storage tank database</td>
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<tr>
<td>ASTM</td>
<td>formerly the American Society for Testing and Materials</td>
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<td>BRS</td>
<td>biennial reporting system database</td>
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<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensation, and Liability Act</td>
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<td>CERCLIS</td>
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<td>Information System</td>
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<td>extremely hazardous substance</td>
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<td>leaking underground storage tank database</td>
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<td>North American Industry Classification System</td>
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<tr>
<td>TRIS</td>
<td>Toxic Release Inventory System</td>
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<td>TSCA</td>
<td>Toxic Substances Control Act</td>
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Introduction

General

Environmental Strategies Consulting LLC, on behalf of Emerson Electric, has prepared this Onsite Assessment Report that identifies historical areas of potential concern at the Emerson Power Transmission (EPT) facility in Ithaca, New York. The scope of work involved conducting an environmental assessment of the facility to identify areas that present a potential environmental concern and to identify potential migration pathways. The findings of this report will be used to develop a work plan to evaluate the identified areas of concern and determine if there have been any releases that have impacted soil and or groundwater. The assessment was conducted at the direction of the New York State Department of Environmental Conservation (NYSDEC) and was prepared in accordance with standards established by the ASTM International (formerly the American Society for Testing and Materials) as part of Standard E-1527-00. The following work was conducted during completion of the onsite assessment:

- Environmental Strategies reviewed and evaluated available historical site plans, process diagrams, engineering drawings, facility insurance maps, and facility schematics.
- Environmental Strategies reviewed available files related to historic site operations as well as relevant environmental documents.
- Environmental Strategies submitted freedom of information requests (FOIAs) to the New York Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) and reviewed the files for the site.
- Environmental Strategies reviewed files provided by the Tompkins County Health Department related to historic releases at the site.
- Environmental Strategies and Emerson contacted and interviewed Mary Tomlin, a local architectural historian in relation to historic structures at the site.
- Environmental Strategies retained Environmental Data Resources, Inc. (EDR), to conduct a database search of properties within ASTM-specified search radii to help assess the likelihood of problems from migrating hazardous substances or petroleum products. The results of the database search are presented in Appendix A. The search (including the approximate minimum search distances) was
conducted in accordance with the standards established by ASTM E 1527-00. A list of databases reviewed is included in Appendix A.

- Environmental Strategies retained EDR to conduct a search for aerial photographs, for the subject property. No aerial photographs were available for the subject property. Environmental Strategies reviewed aerial photographs for 1968, 1976, 1991, and 1999 at the GIS Department in the City of Ithaca.

- Environmental Strategies retained EDR to conduct a search for historic maps, including Sanborn fire insurance maps, for the subject property. EDR provided Sanborn fire insurance maps for the years 1910, 1919, 1929, 1961, and 1971 (Appendix B). Historic topographic maps from the years 1895, 1905, 1906, 1949, 1951, 1969, and 1978 were also reviewed (Appendix B).

- Environmental Strategies retained EDR to conduct a search of city directories for the subject property. No city directories were available for the site.

**Disclaimer**

Portions of this report are based on documents and oral information, which have not been independently verified. While this report is accurate to the best of Environmental Strategies’ knowledge and belief, Environmental Strategies cannot guarantee the completeness or accuracy of any description or conclusions based on the supplied information.
Assessment of Environmental Risks at the Former Borg Warner Facility
in Ithaca, New York

General Description

The EPT facility is situated on approximately 110 acres at 620 South Aurora Street in Ithaca, New York. The facility, which was previously operated by Borg-Warner Corporation, consists of three main buildings that encompass approximately 800,000 square feet (Figure 1). Approximately 500,000 square feet are used for manufacturing, 200,000 square feet are vacant or used for storage, and approximately 100,000 square feet are leased by Cornell University for storage of miscellaneous equipment and office furniture (Figure 2). The remaining portion of the site consists of paved and wooded areas. Reportedly, in the late 1960’s a 1,800-foot well was installed on the property in an attempt to obtain water for use at the facility. According to June 21, 1966 correspondence to the New York Bureau of Water Resources, the well did not yield sufficient water for use. No other information related to the construction or the location of this well was available.

EPT manufactures industrial chains, sprockets, clutches, bearings, and couplers. Chain links are made by stamping the parts from metal stock. The link parts are then washed, heat treated, re washed, and shot blasted. Joint parts are formed, washed, heat treated, and grinded. The link and joint parts are then re washed, assembled, and oiled before packed for shipment. Bearing and clutch parts are manufactured by turning, drilling/milling, heat treating, and grinding. These parts may then be painted and washed before assembling, packing, and shipping. Most products are shipped to customer service centers and warehoused. EPT operates under North American Industry Classification System (NAICS) code 333613, which is specific for establishments primarily engaged in mechanical power transmission equipment manufacturing. This NAICS code corresponds to the standard industrial classification (SIC) code 3568.

The original building at the EPT site was built in 1906 by Morse Industrial Corporation, which manufactured steel roller chain for the automobile industry. From approximately 1928 to 1983, Borg Warner owned the property and manufactured automotive components and power transmission equipment using similar processes, but not necessarily the same materials, as those currently conducted by EPT. Up until the late 1970s, Borg Warner used trichloroethylene
(TCE), a widely-used solvent for cleaning and degreasing metal parts. In 1983, Morse Industrial Corporation was purchased from Borg-Warner Corporation by Emerson, and became known as Emerson Power Transmission in the late 1980’s. EPT manufactures industrial roller chain, bearings and clutching for the power transmission industry. Under Emerson’s ownership, TCE has not been used at the Ithaca facility.

Currently, EPT has 296 production personnel, 76 administrative personnel, and approximately 65 corporate employees. The facility operates three shifts a day, 7 days per week. The primary materials used by EPT are steel, cast iron, and plastic. Other materials used by EPT include coolants, detergents, aluminum oxide, solvents, paints and thinners, ammonia, tumble media, nitrogen, carbon dioxide, oxygen, helium, kerosene, diesel fuel, and cutting, quench, and punch oils. Natural gas is used to heat the facility. Propane is used to fuel forklift trucks, and diesel fuel is used to fuel the facility’s tractor and fire pump. Liquids are stored in drums or portable tanks inside the facility or in stationary aboveground storage tanks located inside and outside the facility. In addition, the facility has a 200,000-gallon underground tank, which contains city water, used as a fire water reservoir.

The EPT facility is in Tompkins County and lies partially in the city of Ithaca and partially in the town of Ithaca in a mostly residential area. The site is located on steep terrain. Bordering the site on the east is South Aurora Street across which is Ithaca College. The southern portion of the property is unused and vacant. Vacant land and residential areas border the property to the west, and residential areas are located to the north. Cayuga Lake is approximately 2 miles north of the facility. A tributary (Six Mile Creek) to the Cayuga Lake Inlet (northwest of site) is located approximately 1,100 feet north of the EPT property.

**Geologic and Hydrogeologic Setting**

The site is located on the northern edge of the Appalachian Plateau Physiographic Province, which is characterized in central New York by deeply dissected hilly uplands and glacially gouged stream valleys. The EPT facility occupies the edge of one of the dissected hills and overlooks the Cayuga Lake basin, which is formed in a former stream valley eroded and enlarged by the advancement of glaciers. Underlying the site is a thin, discontinuous veneer of glacial till and man-made fill. The soil, also known as the A-zone, is typically a silty or clayey gravel and ranges in depth from 2.5 to 33 feet thick, though most of the EPT facility property and the western slope of South Hill (areas between West Spencer Street and the northwestern boundary
of the site) is covered by less than 15 feet of soil. Soil depths generally increase with decreasing elevation and eventually merge with glacio-lacustrine silt and clay that lines the bottom of the valley floor below South Hill.

Beneath the overburden lies bedrock of the Ithaca Siltstone, which is a member of the Genesee Formation. The bedrock is typically well-cemented with generally non-fossiliferous beds ranging in thickness from 0.1 inch to 2.5 feet. Previous interpretations of the site bedrock, based on core logs recovered from boreholes drilled for investigation activities, differentiated the rock into three zones based on the frequency of bedding plane fractures: an upper “stress relief zone” (B-zone), a middle “transitional zone” (C-zone), and a lower “lithologically controlled zone” (D-zone). The uppermost B-zone is weathered bedrock and very highly to highly fractured. The B-zone extends to a typical depth of approximately 22 feet below ground surface (bgs) and has an average thickness of approximately 8 to 10 feet on the western portion of the site where the current remediation system is located (Figure 2).

The transitional zone (C-zone) extends from the base of the B-zone to a maximum depth of approximately 55 feet bgs at the site. The lower lithologically controlled zone (D-zone) extends from the bottom of the C-zone to a minimum depth of 145 feet bgs. In this lower zone, fractures are reportedly confined to intervals that are widely spaced, and their occurrence is controlled by lithology. This terminology was developed by Radian Corporation, the previous consultants at the site, and carried forward by Environmental Strategies.

The bedrock in the Ithaca area is cut by at least three sets of nearly vertical fractures or joints. Limited geologic mapping performed by Radian at 16 outcrop locations on and around the EPT facility found three consistent joint orientations: N13W to N21W (north-northwest); N70E to N89E (east-northeast); and N45E to N55E (northeast). Two of the three strike orientations measured by Radian are in reasonably close agreement with regional joint set measurements of N19W and N7E made at outcrops of the Genesee Group in Tompkins County. All of the joints previously measured were within 8 degrees of vertical.

Groundwater is present within the overburden and bedrock at the EPT site. Overburden water appears to be restricted to limited areas of the site where the discontinuous cover of soil is thickest. Based on short duration pumping events and slug tests previously performed, the overburden groundwater in the area surrounding the treatment system is in hydraulic communication with the underlying bedrock of the B-zone. The extent of the communication has
not been quantified; however, in the area around the treatment system, the two units appear to act as a single hydraulic entity. Groundwater is also present in the deeper bedrock wells. Limited pumping and slug tests previously performed suggest that the deeper wells in the treatment system area are hydraulically isolated from the overlying B-zone.

Groundwater elevation data collected in May 2005 from B-zone wells in and around the treatment area show a northwesterly flow direction. Groundwater flow in the deeper bedrock intervals likely follows the same flow direction towards the Cayuga Lake basin. However, given the vagaries of groundwater in bedrock wells, which is often dictated by the particular fracture or fractures intercepted by the borehole, flow may vary locally.

Aerial Photographs

Environmental Data Resources, Inc. (EDR) has certified that no aerial photographs are available for the site. However, aerial photographs of the site taken in 1968, 1976, 1991, and 1999 were available at the GIS Department in the City of Ithaca and were reviewed by Environmental Strategies.

The 1968 aerial photograph (1”= 2000’) shows the facility buildings, service roads, and parking areas largely as they appear today. The scale of the photograph is not large enough to identify small features, such as aboveground storage tanks or outdoor drum storage areas. A narrow strip of cleared land is visible extending west from the rail bed near Building 34 toward West Spencer Street. The existing unpaved roadway that connects to the perimeter paved service road in the southwestern portion of the facility is visible and appears to be newly constructed. The 1976 aerial photograph (1”=250’) shows an apparent area of disturbance near the north end of Building 24. Drums appear to be stored north of Building 30. Additional outdoor storage is visible south of Building 33 and east and northeast of Buildings 13A and 13B. In addition, storage areas are visible south of Building 30 in the vicinity of the present day aboveground storage tank saddles and on the east side of the existing unpaved roadway in the southwestern portion of the facility. A large depression is visible on the wooded slope west of Building 34 on the west side of the railroad bed. Unknown objects are visible in the depression. A portion of the spray pond foundation is visible north of Building 18 and the scrap dock and scrap chute and associated rail spur are visible north of Building 4.

The 1991 aerial photograph (1”=250’) shows that the area north of Building 24 has been graded and restored. The former 20,000 gallon fuel oil aboveground storage tank is present.
north of Building 18. An area of outdoor drum storage is visible southeast of Building 13B on the east side of the service road. The materials visible on the east side of the dirt drive at the southwest corner of the facility in the 1976 photograph are no longer present. Similarly, the materials stored outdoors south of Building 33 are not present. Two rectangular structures, which are present today, are visible approximately 80 feet south of Building 30. The material storage area located south of Building 30 on the 1976 photograph has been replaced with six pairs of aboveground storage tank saddles inside a chain link fence. A single above ground tank is present on the easternmost saddles.

In the 1999 aerial photograph (1”=275’), the outdoor material storage areas formerly located southeast of Buildings 13A and 13B, north and south of Building 30, and along the east side of the parking lot southeast of Building 34 are no longer present. In addition, the methanol tank located east of Building 14 and the scrap dock, scrap chute, and the associated rail spur have been removed. The 10,000-gallon fuel oil aboveground storage tank west of Building 18 has been removed, and the area has been landscaped with shrubs.

**Historical Maps and City Directories**

A search was conducted of historic fire insurance maps for the subject property (Appendix B). Sanborn maps of the site and surrounding areas for years 1910, 1919, 1929, 1961, and 1971 were reviewed. The 1910 map shows the subject property occupied by Morse Chain Company. Buildings 9 and 10 (current labels) were present in the southwest portion of the property. Building 9 was occupied by a wire mill and metal storage. Building 10 was occupied by a foundry and a coke operation. Building 11, located east of Buildings 9 and 10, was occupied by a pattern shop and pattern storage area. A lumber shed was located just south of Building 11. Buildings 1 and 2, occupied by offices, a machine shop, and a coal house, were present in the center of the property. Buildings 17 and 18 were occupied by a power house and storage. A lumber pile, tunnel and associated platform were present on the northeastern side of Buildings 17 and 18; the tunnel extended from Building 2. An overflow reservoir (fire water reservoir) and oil house were present west of Building 18.

The 1919 map shows a reservoir (labeled as Morse Chain Reservoir) across (to the north of) the railroad tracks opposite the tunnel and platform extending from Building 2. In addition, a second reservoir is present northeast of the Morse Chain Reservoir and is labeled as “Old City Reservoir, not used.” The overflow reservoir (fire water reservoir) is present west of Building 18.
In the 1919 map Building 8 has been added to the southwest end of Building 9 and was occupied by a cold rolling mill. The central building was expanded to include Buildings 3 through 6 for an airplane factory and storage. An auto building and storage building were present to the southwest. Three smaller buildings are present south of Buildings 8 and 9 and were used for steel storage and a test shed (possibly Buildings 13A and 13B).

The 1929 Sanborn map identifies Building 24 as a woodworking, office, and assembly facility and is located northeast of Building 11. A coal pile is located further northeast of the Building 24. Building 9 is identified as an annealing facility. Buildings 14, 35, and 51 are shown and labeled as a heat treating area. A connection is shown between the Old City Reservoir and Building 1 (offices). In addition, the Morse Chain Reservoir north of the railroad tracks is labeled as a spray pond. Three water tanks are identified in the southern corner of the site adjacent to a reservoir (near South Aurora Street). An 8-inch water pipe extended north from the reservoir and branched off in several directions across the site.

On the 1961 Sanborn map, the site is labeled as Morse Chain Company, Division of Borg-Warner. Building 24 is labeled as National Cash Register (NCR), National Adding Machine Division. Additionally, Building 6A is present. The spray pond is present and the Old City Reservoir is covered by a building labeled as Morse Chain Company. None of the listed uses on the other buildings were legible in the 1961 map.

The 1971 Sanborn map identifies Building 24 (formerly occupied by Borg Warner and NCR) as a supply and manufacturing division (noted as “not in operation”) and the coal pile northeast of this building noted in the 1961 map is shown as “removed.” The Old City Reservoir is now labeled as Morse Chain Office Building and the spray pond is present to the southwest. Other onsite buildings were labeled as follows: Building 1- offices and storage, Building 2- wood working and mechanics shops; Building 3- storage, testing, and assembly; Buildings 4 and 5- storage and assembly; Building 6- shed, Building 6A- assembly; Building 8- cold rolling and drawing; Building 9- annealing; Building 10- foundry; Building 11A- unidentified use; Buildings 14, 15 and 35- illegible.

Topographic maps from 1895, 1905, 1906, 1949, 1951, 1969, and 1978 were reviewed by Environmental Strategies. The subject property is split onto two quadrangles; Ithaca East and Ithaca West. The scale is too small on the 1895, 1905, 1906, and 1949 maps to discern any buildings. The 1951 map shows the subject property located in an area just inside the City of
Ithaca boundary. The city reservoir structure and the spray pond to the north of the main EPT building are present as well as Building 24 and four other buildings. The subject property and adjacent surrounding properties remain similar on the 1969 and 1978 topographic maps; however, parking areas/roads are present southwest of the buildings, the main building has been extended to the southwest, and the spray pond is no longer present in the 1969 map.

The 1949 and 1951 topographic maps show an unnamed perennial stream originating in the hill approximately 2,500 feet southeast of the EPT property, at an elevation of approximately 920 feet AMSL. This stream extends across the southwestern portion of the EPT property and discharges to a tributary of Six Mile Creek west of the site. On the 1969 and 1978 topographic maps, the Ithaca College is shown at the location of the origin of this stream and the new origin is a small lake at elevation 860 feet AMSL approximately 500 feet to the north. The stream is shown as intermittent and continues northwest across and potentially beneath one of the buildings (possibly Building 34) on the EPT site, and empties into a manmade structure at its intersection of Stone Quarry Road. It eventually discharges to a tributary of Six Mile Creek.

Two Crandle Maps obtained from the City of Ithaca Public Works Department were also reviewed by Environmental Strategies. The 1893 map (corrected to January 1902) shows four buildings on the EPT site. The city reservoir is noted as being 1.29 acres in size with a bottom elevation of 157.7 feet AMSL and a top elevation of 173.7 feet AMSL. Two sets of pipes (8-inch and 12-inch) are shown running from the northeastern corner of the reservoir, north on Tioga Street (currently Turner Place) to west on Mechanic Street (currently Hillview Place) and eventually crossing South Hill Terrace and South Cayuga Street. In addition, a line marked as “preliminary or proposed” is shown extending from the northeastern corner of the property to Tioga Street and continues north paralleling the reservoir water lines. On the 1899 map (corrected to 1909), no buildings are shown and Tioga Street extends further south almost to Aurora Street. Also, the unmarked “preliminary” line is now labeled as “6-inch 1905” and is only shown starting at the intersection of the railroad tracks and Tioga Street until it connects to the 8-inch water line near the reservoir.

City Directories

A search was conducted of city directory abstracts for the site. EDR has certified that no city directories are available for the site.
Previous Onsite Environmental Reports and Investigations

During Borg-Warner’s plant ownership, several chlorinated solvents including TCE and tetrachloroethene (PCE) were used in manufacturing operations. The solvent TCE, was reportedly used to clean metal parts and scrap metal in conveyor type vapor degreasers located on the ground floor of the main plant building (Building 4 – 507 Degreasing Department). TCE was discovered in a firewater reservoir that lies beneath one of the outbuildings directly north of the former vapor degreaser area in the main building (Figure 2). Subsequent investigations conducted by Emerson beginning in 1987 revealed TCE-contaminated groundwater in the area directly downhill from the reservoir. Emerson reported these findings to the NYSDEC in 1987. Additional investigation in the late 1980s and early 1990s led to the installation of the groundwater remediation system directly downgradient of the firewater reservoir and a groundwater investigation program that included a number of wells in the neighborhoods adjacent to the EPT facility.

Environmental investigations and remediation conducted at the EPT site include the following:

- Preliminary Assessment and Remedial Investigation (Radian 1987)
- Remediation System Selection and Implementation (Radian 1994)
- Oily Soil Remediation (Radian 1994)
- Scrap Metal Area Remediation – Phases I and II (Radian 1995)
- Groundwater Evaluation of Remediation Area (Environmental Strategies 2005)
- Drum removal activities (Environmental Strategies 2005)
- Research & Development (R&D) building investigation (Environmental Strategies 2005)
- Supplemental groundwater investigation downgradient of fire water reservoir (Environmental Strategies 2005)
- Geophysical survey on and offsite to the north and northwest (Environmental Strategies 2005)

A summary of the remedial activities are summarized in the following sections.

Remediation System Implementation

In August 1991, an Interim Remedial Measure was implemented at the site, which involved constructing and operating a groundwater extraction system. Potential remedial alternatives for the
EPT site were later identified and evaluated in a feasibility study that was completed in 1994. Two-Phase Extraction was selected as the final remedial alternative for affected groundwater at the site and was detailed in the Record of Decision (December 1994).

The Two-Phase remedial system consists of five extraction wells (EW-1, EW-3, EW-4, MW-2, and MW-31). Both groundwater and soil vapor are removed from the extraction wells using a vacuum pump. Extracted vapors and groundwater are piped to an air/water separator to separate the air and water streams and, subsequently, the groundwater is treated using activated carbon to remove the VOCs. The Extraction System has been operating for approximately 9 years. Performance monitoring is conducted quarterly. The total mass of VOCs removed is approximately 300 pounds.

**Oily Soil Remediation**

A release of oil from the storage of scrap metal at the EPT site was reported to the DEC in November 1994. Two areas of concern were assessed for the presence of VOCs and SVOCs as shown on Figure 2. One area (Area 1) is southeast of the main building previously used for storing dumpsters containing scrap metal and kerosene. The second area (Area 2) is located on the southwestern side of the main building where a scrap metal conveyor belt, loading dock (used since 1967), and bins/hoppers were used. This area also included a small oil storage shed which contained an aboveground storage tank for oil.

Sampling results indicated that soils in Area 1 and soils near the storage shed in Area 2 contained VOCs and SVOCs above the NYSDEC action levels. Approximately 130 cubic yards (cy) of soil and debris were removed from Area 1 and 80 cy were removed near the oil storage shed in Area 2 in August 1995. The excavated soil was transported to a Browning Ferris, Inc., facility in Niagara Falls, New York. In a letter to Emerson dated December 5, 1995, the NYSDEC stated that the two areas were closed; however, they did not meet applicable standards.

**Scrap Metal Area Remediation – Phases I and II**

In May 1995, Emerson submitted a document to the NYSDEC titled “Remedial Design, Petroleum-Containing Soils, Emerson Power Transmission, Ithaca, New York” which detailed activities for remediating soils in the vicinity of the former scrap dock/scarp chute located north of the main building at the southern end of South Cayuga Street (Area 3 - Figure 2). The soils remediation work was conducted as part of the 1994 Record of Decision. Approximately 1,500 cy of soil and debris were removed from four discrete areas and transported to the High Acres
Landfill in Fairport, New York, as non-hazardous, special oily waste. Following the initial soil removal activities between October 1995 to January 1996, confirmation samples were collected from each excavation. The majority of confirmation samples contained TPH above the NYSDEC cleanup objective of 1,000 mg/kg. Therefore, a second phase of soil removal was conducted between October and December 1996.

During the second phase of soil removal activities, a total of approximately 1,700 cy of soil and debris were excavated and transported to the High Acres Landfill. Following completion of the Phase II remedial activities, soil confirmation sample results were below the NYSDEC cleanup objective for TPH. Other field activities were conducted during the second phase of soil removal and included well abandonment, demolition and disposal of an historic scrap chute/scrap dock, temporary re-routing and permanent replacement of the sanitary sewer line, and closure of two underground storage tanks. The two underground tanks were located within the scrap conveyor area and stored used oil. Both tanks were constructed of steel and had capacities of 830 gallons and 4,200 gallons. The tanks were filled and closed in-place in December 1995, in accordance with the NYSDEC approved document, *Remedial Design of Petroleum-Containing Soil* (Radian 1995).

**Drum Removal Activities**

In December 2004, Emerson was made aware of old drum remnants located on the hillside southwest of the EPT facility. On December 13, 2004, Environmental Strategies and EPT personnel conducted a reconnaissance survey of the southwestern portion of the EPT property to identify and mark drums, drum remnants, and other containers of potential concern for subsequent removal. The reconnaissance survey involved inspecting the steep wooded slope between the western boundary of the property and the former railroad bed, and the wooded area directly west of the railroad bed and NYSEG power station (Figure 2).

The reconnaissance survey identified remnants of drums and a container in 15 separate locations southwest of the EPT facility. In general, the drums were heavily corroded with numerous holes and no visible markings or labels, except for a container that held grease. In most cases, only a portion of the drum remained. In addition, scrap metal, including drum lids, 5-gallon buckets filled with concrete, culvert pipe, and sections of flue vent, were identified at 5 locations.

Clean Harbors Environmental Services, Inc., was retained to recover the identified drum remnants, and scrap metal identified during the reconnaissance survey. On December 17, 2004,
and January 5, 2005, Clean Harbors removed the drums/containers and scrap metal from each location and transported the materials to the EPT facility. The recovered containers and scrap metal were characterized for offsite disposal for recycling.

Environmental Strategies identified soil sampling locations in concert with the NYSDEC. Shallow soil samples were collected from each location. Five samples contained non-detectable concentrations of VOCs. A trace level of TCE was detected in one soil sample well below the recommended soil cleanup objective (NYSDEC 1994).

Semi-volatile organic compounds (SVOCs) were detected in 5 of the 14 soil samples at concentrations above their respective recommended soil cleanup objectives. Given the industrial history of the area, the steep topography, and the nearby railroad bed and associated fill material, the source of the detected SVOCs was determined to be uncertain.

PCBs were detected in one soil sample at a concentration of 1.6 mg/kg, which is slightly above the recommended soil cleanup objective of 1.0 mg/kg for surface soil (NYSDEC 1994). However, the PCB concentration detected is well below the EPA cleanup level of 25 mg/kg for low occupancy areas.

**Historic Materials Handling and Storage Practices**

According to a 1981 NYSDEC Industry Chemical Use Inventory Report obtained from the Tomkins County Health Department, chemicals used in manufacturing operations during Borg-Warner ownership included xylene, 1,1,1-trichloroethane, toluene, copper cyanide, sodium cyanide, barium chloride, TCE and other solvents. A review of historic files and reports indicate that past operations at the facility included metal stamping, scrap metal storage, solvent degreasing and recovery, and copper and cadmium plating. According to the files, metal stamping, solvent degreasing and solvent recovery operations were conducted in Department 507, which was located on the main floor of Building 4 and included approximately 60 metal piercing machines, two conveyor type vapor degreasers, and a solvent distillation and recovery unit. Solvents used in the degreasing operations included mainly TCE and Safe-Tee Solvent 128, which contained several organic solvents including PCE and methylene chloride. TCE usage occurred from the 1960’s to approximately 1978. Safe-Tee Solvent was used from approximately 1973 to 1983. The degreaser units, which were located in a depressed floor area of Building 4 are no longer present and TCE and Safe-Tee Solvent have not been used since
Emerson purchased the facility in 1983. According to the files, the solvent degreasers were added to the 507 Department in the 1960’s to better manage oily residue from coated metal parts and scrap metal stored in a loading area formerly located on the western portion of the property.

According to the files, another solvent degreaser unit was located on the main floor of Building 6A within the chain assembly area (116 Department). The degreaser is identified in 1972 correspondence between NYSDEC and Morse Chain and according to the files, was the source of an unknown amount of solvent released to the sanitary sewer system. The degreasing unit was removed and the exact location is unknown. No other information was available.

A metal scrap conveyor and loading area was located on the western portion of the facility at the southern end of South Cayuga Street. This area was designed and used to drain and contain oils from scrap metal parts. The area included several oil collection tanks, a scrap metal conveyor, and a rail car loading area. Several correspondences between Morse Chain and Tompkins County Health Department (May 5, 1968 – August 7, 1969) identify this area as a source of oil discharging from outcrops along West Spencer Street and South Cayuga and as a source of oil residue identified along the South Cayuga Street storm sewer. As mentioned previously, the scrap conveyor and loading area was demolished and affected soil in the area was remediated by Emerson in 1995 and 1996.

Former copper and cadmium plating operations were conducted at the facility between 1960 and 1982. According to site files, a Plating Department was located on the eastern portion of the plant within Building 14. Cadmium plating occurred from approximately 1960 to 1975. Copper plating, which according to the files included the use of copper cyanide solutions, occurred from 1972 to approximately 1982. According to a 1968 Engineering Drawing titled “Cyanide Room Drainage Trench,” the plating department consisted of approximately five plating tanks and three rinse tanks. Several acid pickling tanks were also depicted on the 1968 drawing.

A review of the historic files indicates that empty and partially filled drums were discovered on several occasions along the hillside between West Spencer Street and the facility (Figure 2). In a 1971 Morse Chain interoffice correspondence, the drums on the hillside were identified as a possible source of oil contamination reported to the facility by the Tompkins County Health Department. According to the files, approximately 75 to 100 drums were removed from the hillside between 1980 and 1982 by Borg Warner following citizen complaints.
In 1987, an additional 55 to 60 unmarked drums were discovered by Emerson and the NYSDEC above the railroad bed, 6 drums in a ravine below the outfall, 20 drums were down the hill from the NYSEG substation, and 12 to 15 drums were located down the hill from the railroad bed. In consultation with NYSDEC, the identified drums and remnants were removed by Emerson in 1988. Additional drums and drum remnants were identified and removed from this same area by Emerson in 2004, as discussed previously.

Two large coal piles were formerly located on the northern and southern portions of the property (Figure 2). The coal piles appear to have been used by the facility for heating and were identified on a 1919 and 1955 Sanborn fire insurance map.

Four below grade quench oil pits were formerly located near the center of current Building 9. According to the files, the pits were taken out of service and either filled or covered over. A fifth quench oil pit in this area is currently in use. A Morse Chain interoffice Memo, dated June 3, 1970 titled “Waste Oil Problems,” identified holes in the bottom of the Westinghouse furnace quench pit.

**Underground and Aboveground Storage Tanks**

Currently no underground storage tanks are located at the facility with the exception of the 200,000-gallon concrete underground fire water reservoir. Three underground storage tanks were formerly located on the southwestern side of the main building. Two of the tanks were located within the scrap conveyor area and stored used oil. The tanks were constructed of steel and had capacities of 830 gallons and 4,200 gallons. The tanks were filled and closed in-place in December 1995, in accordance with the NYSDEC approved document, *Remedial Design of Petroleum-Containing Soil* (Radian 1995). The third underground tank was a 12,000 gallon cutting oil tank located in an area just southwest of Building 20. According to the files, the tank was removed in 1993.

Approximately 40 aboveground storage tanks are currently located at the EPT facility. All but six of the aboveground tanks are located indoors. Tanks located outdoors store anhydrous ammonia, propane, oxygen, carbon dioxide, nitrogen, and kerosene. The remaining 34 tanks located in the buildings contain oils, diesel fuel, oily wastewater, quench oil and water, ethylene glycol, and used oil.

A review of historic engineering drawings and fire insurance maps (Factory Mutual Insurance) indicated that 10 additional aboveground storage tanks were formerly located at the
facility, including a 100,000-gallon fuel oil tank, a 15,000 gallon fuel oil tank (in a shed), a hydraulic oil tank of unknown size (in a shed), a 250 gallon gasoline tank, a 20,000 gallon fuel oil tank, a 10,000 gallon fuel oil tank, a 6,000 gallon lubricating oil tank, a 500 gallon gasoline tank, and two 5,000 gallon sulfuric acid tanks (Figure 2). According to historic fire insurance maps reviewed by Environmental Strategies, the 100,000 gallon fuel oil tank and associated pump house were at the current location of Building 33 along the southern portion of the facility. The 15,000 gallon fuel oil tank was located in a tank shed to the south of Building 24. The hydraulic oil tank was identified along the southwestern exterior of the former R&D Building (Building 21). The 20,000 gallon and 10,000 gallon fuel oil tanks and the 6,000 gallon lubricating oil tank were all identified along the northeast portion of the property southwest of Building 3. The two 5,000 gallon sulfuric acid tanks were identified along the eastern exterior of Building 9. The 250 gallon gasoline tank was located north of Building 21 (former R&D Building). The 500 gallon gasoline tank was located west of Building 4.

**Regulatory Database Search**

Federal and state databases were searched to determine the potential for the site to be affected by releases from neighboring properties (Appendix A). Thirty-one sites within a 1-mile radius of the facility are listed on the databases searched. The neighboring sites that have the greatest potential to cause environmental contamination to the subject property are those that have had releases or spills of hazardous materials or petroleum products, and those that have had significant environmental releases and underwent or were targeted for remedial investigation or cleanup. The facilities that are in these categories that are of the greatest concern to the subject property are those that are upgradient or in close proximity. The direction of groundwater flow at the site has been identified by EDR and by previous onsite investigations as flowing to the north-northwest. Several facilities were reported in the EDR database report within a 0.25 to 0.50 mile radius of the EPT site. However, the majority of the sites are on the north and east sides of Six Mile Creek and any releases from these sites would not have an impact on the EPT property. Therefore, only those facilities located south-southeast of the EPT facility that pose the greatest potential concern to the subject property are further described below.

Therm Inc., located 0.25-0.5 mile east-southeast of the subject property, is listed on the LTANKS and HIST LTANKS databases. The facility had a petroleum release, which was
reported by a nearby homeowner on March 27, 1993. According to the database report, the homeowner noticed an oily sheen on the Six-Mile Creek and a petroleum odor. Corrective action was taken to reduce the petroleum level of the suspected leaking tank to a level below the suspected leak and a closure date of July 15, 1995 was assigned to the facility. Due to the fact the suspected leaking tank still contains fuel at some level and the location of this facility is hydrogeologically upgradient of the subject property, this facility could potentially pose an environmental concern to the subject property.

The former NCR site (currently owned by Axiohm, Inc.) located approximately 0.25 miles south of the EPT site was identified on a previous database report in 2004. However, this site was not identified in the current database report due to the ASTM search criteria used (i.e., database search was per distance from subject property). Information regarding the Axiohm site is further described in the following section based on a file review at the NYSDEC.

In addition, 42 unmapped sites (sites with incomplete addresses) within Ithaca were identified on the NY Spills, NY Hist Spills, LTANKS, HIST LTANKS, SHWS, RCRA-SQG, and the UST databases. Based on Environmental Strategies observations of surrounding properties, it does not appear as though any of the unmapped sites are located within a 0.5-mile radius of the subject property.

**Review of Potential Migration from Offsite Sources**

A former National Cash Register facility (currently owned by Axiohm, Inc.) located at 950 Danby Road (0.25 miles south of the EPT site) and the Therm, Inc. facility located on the 100 Hudson Street Extension (0.5 miles east of the EPT site) were identified from previous database searches as potential offsite sources of contamination (Figure 3). Environmental Strategies conducted a review of NYSDEC files for these sites. A summary of this document review is provided below.

A file review was conducted related to the Axiohm facility in April 2005. The major documents reviewed included a source area investigation report, Phase I and II investigation reports, a bedrock monitoring well installation and sampling report, and a proposed Remedial Investigation Work Plan (under the Brownfield Cleanup Program). The Axiohm facility was formerly occupied by NCR from 1953-1992 during which time they manufactured circuit boards. AT&T acquired NCR and the site was used site from 1992-1994 to manufacture and assemble
impact and thermal printers. Axiohm occupied the site from 1994-2004 and manufactured transaction printers for automatic teller machines and cash registers. There were nine USTs onsite during NCR’s occupancy. The sizes ranged from 1,500 gallons to 15,000 gallons and their contents included fuel oil, cutting oil, lubricating oil, waste oil, solvent (TCE), and gasoline. All tanks were removed or closed in-place in 1986. The site also contains a 200,000-gallon concrete underground vault holding water used to augment the facility sprinkler system. Drum of waste were formerly stored outside in the southwestern portion of the parking area (unpaved at the time). In addition, one report noted a previous employee statement that chemicals were dumped into the woods adjacent to the facility’s parking lot. Eleven areas of concern were identified at the site including the former USTs, hazardous waste storage areas, former disposal areas, and a drainage swale the formerly bisected the property.

Results of onsite investigations identified soils containing predominantly TCE, cis-1,2-DCE, and vinyl chloride, SVOCs, and metals. The highest level of TCE (29,500 mg/kg) was detected in a soil sample collected from a test pit that was excavated near the former disposal area located on the southwestern portion of the property. PCE was detected in a soil sample (193 µg/kg) collected near the southwest portion of the facility parking lot north of the disposal area and in soil sample (37 µg/kg) collected from a test pit installed within the western section of the former disposal area. None of the site groundwater monitoring wells are screened within the shallow highly fractured bedrock. Shallow overburden groundwater contains VOCs (mainly TCE and vinyl chloride) and PCBs above NYSDEC groundwater standards and bedrock wells completed as open holes in the bedrock (below the highly fractured zone) contained TCE up to 132 µg/l. The highest concentration of TCE (560 µg/l) was detected in a well screened in the overburden downgradient of the former plating area. Non-aqueous phase liquid (oily-like substance) was observed in two wells (shallow groundwater) located near the former heat treat and plating area. PCE was not detected in shallow groundwater. Stream surface water samples contained VOCs (TCE and cis-1,2-DCE) and metals above NYSDEC surface water guidance values. TCE was detected at 6.22 µg/l. PCE was not detected in surface water.

A report states that underground utilities across the site (storm drain lines, sanitary sewer lines, electric and gas lines) may be acting as conduits for VOC contamination. However, in the recent proposed Remedial Investigation Work Plan (Stearns & Wheeler 2005), this migration pathway was not addressed. In addition, none of the proposed bedrock monitoring wells screen
the shallow highly fractured bedrock zone and may not be located within preferential conductive zone. Therefore migration pathway may not be fully addressed by the proposed scope.

A file review for the Therm, Inc. site was conducted at the NYSDEC in November 2004. Records indicate that Therm used TCE as a solvent for degreasing parts until 1977 when a PCE vapor degreaser was installed and operated. PCE was stored outside in two aboveground storage tanks (275 gallons each). On April 1, 1993, a spill involving 550 gallons of Varsol-1 (contains benzene, toluene, ethylbenzene, xylenes, and semi-volatile organic compounds) into Six-Mile Creek (Spill #9214266) was reported to the NYSDEC. In a series of memos, letters, and work plan comments written over the course of the next year, NYSDEC records mentioned detections of PCE in samples collected from storm water outfalls at the Therm facility. The source of this PCE was unknown.

From August to September 1993, a soil vapor survey was conducted to evaluate the nature and extent of subsurface VOCs in the vicinity of residences located hydraulically downgradient of the Therm facility and to evaluate the potential pathways for offsite migration of VOCs. The survey results indicated the presence of Varsol constituents and PCE in soil vapor samples collected at some offsite properties. In 1994, groundwater monitoring wells were installed in the overburden and shallow bedrock at the Therm property. Sampling results indicated the presence of VOCs, including PCE in the bedrock monitoring wells. The source of the PCE was reported to be associated with residual impacts adjacent to an onsite concrete pad (location and use not reported). Additional investigation was proposed in 1995 to identify the source of the PCE in the storm sewers.

**Potential Areas of Concern at EPT Site**

The following sections describe potential areas of concern (AOC) identified at the EPT site based on a review of all available records including onsite files, database reports, NYSDEC and NYSDOH site files, and historical maps. The AOC number corresponds to the number referenced on Figure 4.

**AOC No. 1 – Former Department 507 Degreasing**

Solvent degreasing and recovery operations conducted in Department 507, formerly located on the main floor of Building 4, included two conveyor type vapor degreasers and a solvent distillation and recovery unit (Figure 4). Solvents used in the degreasing operations
included TCE and Safe-Tee-Solvent, which is a mixture of PCE and methylene chloride. TCE usage occurred from the 1960’s to approximately 1978. Safe-Tee Solvent was used from approximately 1973 to 1983. The degreaser units, which were located in a depressed floor area of Building 4 are no longer present, and TCE and Safe-Tee Solvent have not been used since Emerson acquired the facility in 1983. Based on the historic use of TCE and PCE in the degreasers, this portion of the building is a potential area of concern.

**AOC No. 2 – Former Solvent Degreaser Building 6A**

Another solvent degreaser unit was located on the main floor of Building 6A within the chain assembly area (116 Department) (Figure 4). The degreasing unit is believed to have been located in the northwestern portion of Building 6A, although its exact location is unknown. Based on the historic use of solvents, this portion of Building 6A is a potential area of concern.

**AOC No. 3 – Former Morse Chain Reservoir/Spray Pond**

A former reservoir/spray pond was identified on the 1919, 1961, and 1971 Sanborn Fire Insurance maps north of Building 18, across the railroad tracks (Figure 4). According to the historic files, the reservoir appears to have been used for storing cooling water. Based on the fact that there is no documentation detailing the use and closure of the former spray pond, it is a potential area of concern.

**AOC No. 4 – Former Open Stone Reservoir**

An open stone reservoir was identified on a 1935 architectural rendering of the facility and a 1955 fire insurance map (Factory Mutual Insurance) west of Building 35. The former use of this reservoir is unknown. Based on the lack of information on the use and closure of this former reservoir, is it a potential area of concern.

**AOC No. 5 – Former 100,000-Gallon Fuel Oil Tank/Pump House**

A former 100,000 gallon aboveground fuel oil tank and associated pump house were located to the south of Building 6A. Building 33 now covers the former location of this tank and pump house. The tank and pump house were identified on a 1935 architectural rendering of the facility and on a 1955 fire insurance map. Although Building 33 was constructed over the location of the former tank and pump house, details of tank removal and building construction are unknown. Based on the size of the former tank and its contents, there is a potential that releases to soil may have occurred during use or decommissioning. Therefore, this location is a potential area of concern for petroleum constituents in soil.
AOC No. 6 – Oil Shed (Building 30)

A shed (Building 30) used for bulk oil storage (both past and present) is located to the south of Building 34. It was first identified on a 1955 site plan and on later maps of the facility in 1974, 1983, and 1996. Facility records indicate that secondary containment was constructed around the building in 1974. In 1995, an investigation was conducted of a specific area southwest of the building. Based on the results of the investigation, which identified TPH impacts, the affected soil within this area was excavated and disposed offsite. However, because other petroleum releases may have occurred historically beyond the area addressed in 1995 this area is a potential area of concern.

AOC No. 7 – Former Cyanide and Copper Plating Department

Copper and Cadmium plating operations were historically conducted in Building 14 (Figure 4). Cadmium plating occurred from approximately 1960 to 1975. Copper plating, which used copper cyanide solutions, occurred from 1972 to approximately 1982. According to a 1968 engineering drawing, the plating department consisted of approximately five plating tanks and three rinse tanks. Several acid pickling tanks were also depicted on the engineering drawing. The former plating area was decommissioned and the area remains unused. Based on the chemicals used in historic plating operations, the former plating department is a potential area of concern.

AOC Nos. 8 and 9 – Former Tank Sheds

Two former tank sheds were identified on Sanborn fire insurance maps; one to the south of Building 24 and the other to the southwest of Building 21 (Figure 4). A 15,000 gallon fuel oil tank was housed in the shed south of Building 24 (AOC No. 8) and a hydraulic oil tank of unknown size was housed in the shed southwest of Building 21 (AOC No. 9) (Figure 4). A 1971 Morse Chain interoffice correspondence identifies the former hydraulic oil shed as a possible source of oil contamination. No information is available on use or removal of the tank in the oil shed to the south of Building 24. Based on the historic storage of oil in the tank sheds, they are potential areas of concern.

AOC Nos. 10 - Former Drum Area

Empty drums were discovered on the hillside to the west of the facility (Figure 4). In 1971 correspondence, discovered drums on the hillside were identified as a possible source of oil contamination reported by the Tompkins County Health Department. Also, a 1976 aerial
photograph shows a depression in the wooded area to the west of Building 34 that appeared to contain objects that could have been drums. Borg Warner removed approximately 75 to 100 drums from the hillside southwest of Building 34 between 1980 and 1982. In 1987, additional drums were discovered in three areas by Emerson and the NYSDEC; (1) above the railroad bed, (2) in a ravine down the hillside from the NYSDEC substation, and (3) down the hill from the railroad bed. The drums and remnants were removed by Emerson in 1988. Additional drums and drum remnants were identified and removed from this area by Emerson in 2004. The only sampling conducted in the former drum disposal areas was a limited investigation during the most recent removal procedures conducted by Environmental Strategies in 2004. Some of the drums were reportedly partially filled and releases could have occurred. Therefore, areas not previously investigated are considered a potential concern.

AOC No. 11 – Former Drum Storage Area (near Building 30)

A 1976 historical aerial photograph shows an apparent outdoor drum storage area to the north of Building 30, south of Building 34 (Figure 4). Several hundred drums appear to have been stored in this area of the site. No additional documentation was available describing the storage area or the drums stored in this area. Based on the available information, this former drum storage area is a potential area of concern.

AOC No. 12 – Former Quench Oil Pits

Four below grade quench oil pits were formerly located near the center of current Building 9 (Figure 4). The pits were reportedly taken out of service and either filled or covered over. A fifth quench oil pit in this area is currently in use. A review of facility records indicates that holes were identified in the bottom of one of the four pits (Westinghouse furnace quench pit). Based on the available information, the quench oil pits are considered potential areas of concern.

AOC Nos. 13, 14, 15, 16, 17 – Former Aboveground Tanks

Several above ground storage tanks were formerly located at the facility as identified on fire insurance maps and historical engineering drawings. Only those tanks not previously discussed as an area of concern are discussed in this section. A 20,000 gallon fuel oil tank (AOC 13), a 6,000 gallon lubricating oil tank (AOC 14), a 500 gallon gasoline tank (AOC 15), and a 10,000 gallon fuel oil tank (AOC 17) were all formerly located northwest, west, and southwest of Building 18 (Figure 4). In addition, two 5,000 gallon sulfuric acid tanks (AOC 16) were located in Building 13A along the western wall. Based on the lack of information related to the operation and
closure of these former aboveground tanks, their former locations are each a potential area of concern.

**AOC No. 18 – Outdoor Area of Disturbance**

A review of a 1976 aerial photograph shows an apparent area of disturbance to the north of Building 24 (Figure 4), which was formerly occupied by both NCR and Borg-Warner. No documentation was available to identify the use of this area. Because the vegetation in this area appears to have been stressed, the disturbed area is considered a potential area of concern.

**AOC No. 19 – Drainage Ditches Along Railroad Tracks/Oil Traps**

A drainage ditch formerly extended along the railroad tracks northwest of the Buildings 6A and 34 (Figure 4). This ditch was approximately 400 feet long and was identified on a site engineering drawing. At various locations along the ditch, oil traps were constructed to collect oil that dripped from rail cars. No information is available on how the former ditch was closed. Therefore, the ditch and oil traps are potential areas of concern.

**AOC No. 20 - Storm Sewer Along South Cayuga Street**

EPT is permitted to discharge storm water associated with industrial activity through two outfalls (001 and 003) under SPDES permit No. NY-000-2933 (Figure 4). Outfall 001 receives non-contact cooling water, boiler blowdown, storm water runoff, and groundwater that is treated by the facility’s groundwater treatment system. Outfall 003 receives non-contact cooling water and storm water. Both outfalls discharge to an underground storm sewer line that extends along the east side of South Cayuga Street and discharges to Six Mile Creek.

Historical site records indicate that oil and possibly other materials may have been released to the storm sewer. Based on this information, the storm sewer along South Cayuga Street is a potential area of concern.

**AOC No. 21 - Sanitary Sewer Lines**

EPT discharges sanitary wastewater, process wastewater, non-contact cooling water, boiler blowdown, and miscellaneous wastewater, to the municipal sanitary sewer at two connection points; Turner Place and South Cayuga Street (Figure 4). Sanitary wastewater, process wastewater, non-contact cooling water, boiler blowdown, and miscellaneous wastewater streams are discharged to the municipal sewer at Turner Place while sanitary wastewater and non-contact cooling water is discharged to the municipal sewer at South Cayuga Street.
Based on the long history of manufacturing operations at the facility and uncertainty related to historical discharges to the municipal sewers, the municipal sanitary sewer lines located on Turner Place and South Cayuga Street are considered potential areas of concern.

In addition to the AOCs mentioned above, seven potential migration pathways were identified on historic either fire insurance maps, topographic maps, or from the Geophysical Investigation. A former intermittent stream valley shown on historic topographic maps flowed from the hills southeast of the EPT site in a northwesterly direction, beneath what is now Building 34 (Figure 4), and eventually discharging to a manmade structure leading to Six Mile Creek (Figure 1). Aerial photographs show this former drainage pathway as well. Abandoned water supply lines associated with the former city reservoir were identified on historic Crandle Maps in the city of Ithaca files. These lines extended north from the former city reservoir (later Building 21) down Turner Place. The finding of geophysical investigation identified five major conductive zones along the northeast and southwest portion of the EPT site. These are not considered areas of concern, but are mentioned as potential migration pathways due to their proximity to the EPT site.

Another area at the site that was initially considered an area of concern, but has been evaluated, is the former R&D Building located on the north portion of the site. According information provided by a local historian, the city of Ithaca formerly operated a water works reservoir located beneath the former R&D Building (Building 21, Figure 4). The reservoir was reportedly constructed between 1874 and 1875 and was used to store/supply water to the city of Ithaca until approximately 1912. Between 1919 and 1921, Morse Chain constructed a building on top of the old reservoir. A sump is present in the basement of the building. In addition, solvents were reportedly used by Borg Warner in this building. Recent soil and groundwater, soil, air, and vapor sampling conducted by Environmental Strategies in August 2005 both in and around the former R&D Building (Environmental Strategies 2005) did not indicate a concern. Therefore, this area is no longer considered an area of concern.
Summary of Potential AOCs

Based on the results of the onsite assessment, Environmental Strategies identified the historic onsite operations or historic practices that pose a potential risk for onsite soil or groundwater impacts. Environmental Strategies identified and reviewed all available historical documents related to the former Borg-Warner and EPT facility including the following sources:

- Sanborn fire insurance maps
- Historical site plans, process diagrams, engineering drawings, facility insurance maps, and facility schematics
- Historical aerial photographs
- Historical topographic maps
- City and Town of Ithaca Public Works Department historical files
- NYSDEC, NYSDOH, and Tompkins County Health Department files
- EPT historical files

Following a review of all the historical information for the EPT site, Environmental Strategies identified 21 potential areas of concern:

- AOC No. 1 - Former 507 Department Degreaser
- AOC No. 2 – Former Solvent Degreaser Building 6A
- AOC No. 3 – Former Morse Chain Reservoir/Spray Pond
- AOC No. 4 – Former Open Stone Reservoir
- AOC No. 5 – Former 100,000-Gallon Fuel Oil Tank/Pump House
- AOC No. 6 – Oil Shed (Building 30)
- AOC No. 7 – Former Cyanide and Copper Plating Department
- AOC Nos. 8 and 9 – Former Tank Sheds
- AOC No. 10 - Former Drum Area
- AOC No. 11 – Former Drum Storage Area (near Building 30)
- AOC No. 12 – Former Quench Oil Pits
- AOC Nos. 13, 14, 15, 16, 17 – Former Aboveground Tanks
- AOC No. 18 – Outdoor Area of Disturbance
- AOC No. 19 – Drainage Ditches along Railroad Tracks/Oil Traps
- AOC No. 20 - Storm Sewer Along South Cayuga Street
- AOC No. 21 - Sanitary Sewer Lines

A work plan will be specifically developed to evaluate whether these areas of potential concern have affected soil and groundwater at the site. The work plan will be provided to the NYSDEC and the NYSDOH following their review of this Onsite Assessment report.
References


