



December 18, 2017

Mr. David Szymanski
New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
270 Michigan Avenue
Buffalo, New York 14203

RE: Soils Management Contingency Plan, Site No. V00329-9

Dear Mr. Szymanski:

Xylem Heat Transfer (Xylem) is planning on relocating our below ground main domestic water line and bypass line to above ground with a hot box enclosure and removing a permit required confined space. The scope of the project entails marking utility lines, water shut down, excavation with shoring to expose the 6" domestic water supply lines, prefabrication of new assembly with Erie County Water Authority to replace their meter. Concrete thrust blocks will be poured between the new piping stubs and this will be backfilled per the Soil Management Plan section 4.2. All aspects of the Soils Management Plan will be reviewed and adhered to throughout the duration of the project.

Contractor Management:

A review will be conducted prior to project commencement with Roy's Plumbing and all affected employees to ensure clear expectations per the SMCP.

Excavated/Stockpiled Soil/Fill:

During the project, soil that is without visible evidence of contamination will be contained under a poly cover and utilized as back fill. If there is any excavated soil that would remain for disposal then this would be further characterized prior to any transportation off site for disposal at a permitted facility. If at any time throughout this project any unexpected conditions arise Roy's Plumbing will contact Xylem ESH Manager and work will immediately cease until a plan is reviewed to determine if additional measures may be needed to prevent human contact with potentially impacted subsurface materials.

Deanna L. Crosson
EHS3 Manager
716.862.4013

Attachments:

Project Map
Contractor Letter
Project Scope of Work

December 18, 2017

Roy's Plumbing
140 Cooper Avenue
Tonawanda, NY 14151

**RE: Contractor Safety and Soil Management at
Xylem Heat Transfer
175 Standard Parkway
Cheektowaga, NY 14227**

To Whom It May Concern:

The Xylem Heat Transfer Site (Xylem), located at the above referenced address, has requirements associated with potentially contaminated surface and subsurface soils at the facility. The contaminated soils were identified through work conducted in association with a Voluntary Cleanup Agreement (VCA-Site No. V00329) with the New York State Department of Environmental Conservation. The facility is governed by a Soil Management Plan that requires certain activities anytime the ground is disturbed at the facility. The Soil Management Plan is included in Attachment 1. The soil management plan must be followed regardless of whether contaminated soil is identified.

Some of the basic requirements for performing excavations at Xylem are included below for your reference.

1. The Contractor Safety guidelines presented in the Xylem Contractor Safety Handbook must be followed at all times.
2. The Contractor must inform their employees about the potential for the presence of contaminated soil at the site. The NYDEC Site record and recent analytical data from the area is included in Attachment 2 to provide a description of the known contamination in this area of the site.
3. All utilities in the area must be identified prior to performing excavation in the area.
4. The water main must be appropriately locked out / line break prior to excavating around it or performing work/tapping the water main.
5. All excavations must be appropriately maintained and shored based on OSHA guidelines.
6. The contractor must stop work if visually or olfactory contaminated soil is encountered during excavation and contact the Xylem EHS Manager.
7. The excavation must be protected against access with high visibility fence in the grass area and high visibility signs and road barriers where crossing asphalt drive areas.
8. All visually or olfactory contaminated soil must be tested prior to reuse onsite or disposal off site, per the Soil Management Plan. This may cause delays backfilling or reuse/disposal of the soils.
9. The excavation must be covered with an appropriate cover system at the conclusion of the project, per the soil management plan.
10. All new fill/topsoil brought into the site must be from an acceptable borrow source, per the Soil Management Plan. The Contractor must submit appropriate borrow source paperwork to the Xylem EHS Manager prior to the start of the project.

If you have any questions regarding these work instructions please contact me at 716-862-4013.

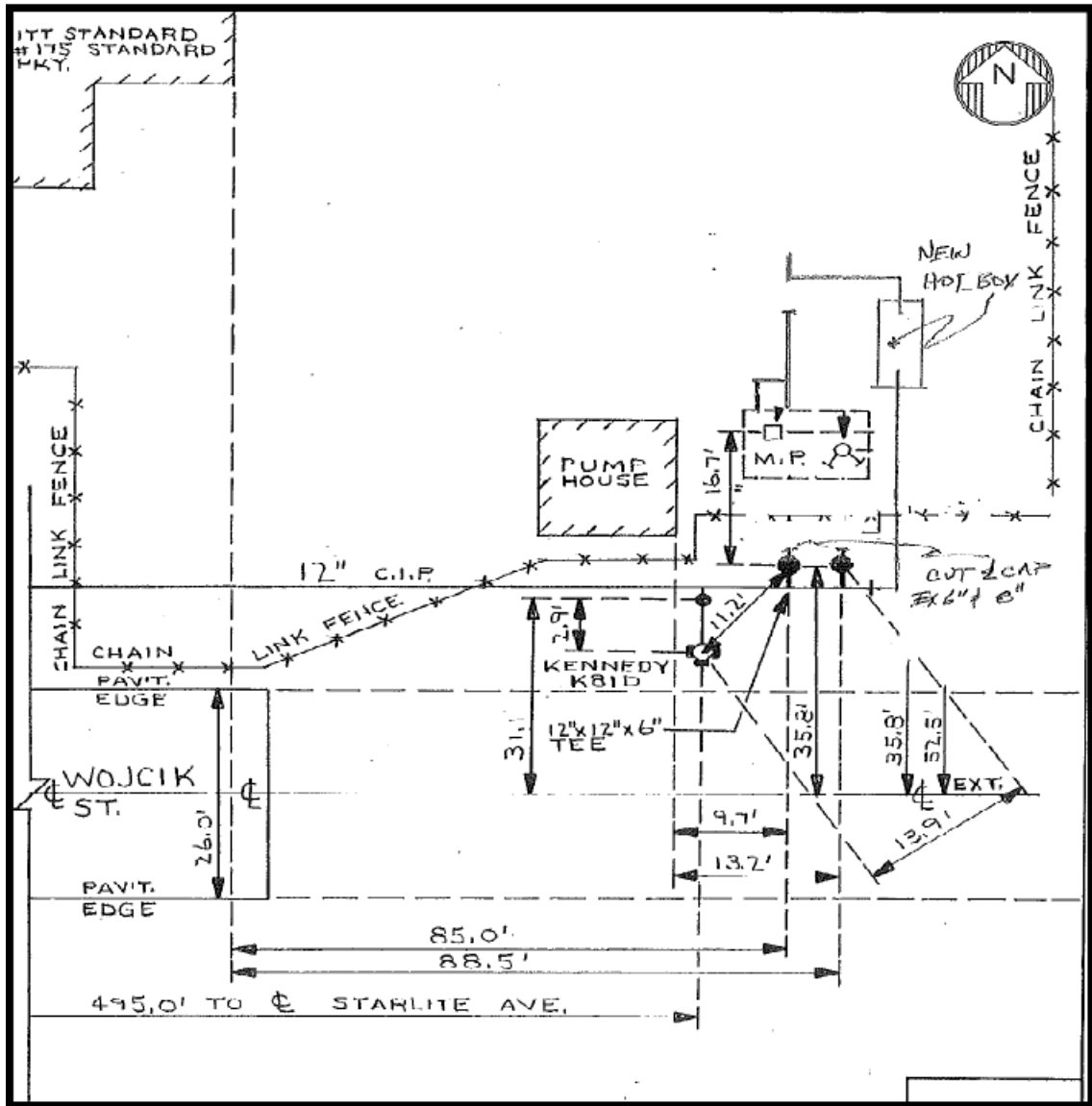
Sincerely,

Deanna Crosson
EHS3 Manager

Attachments:

Attachment 1 – Soil Management Contingency Plan

ATTACHMENT 1
SOIL MANAGEMENT CONTINGENCY PLAN



**ITT Heat Transfer
175 Standard Parkway
Cheektowaga, NY
Site No. V00329-9**

SOILS MANAGEMENT CONTINGENCY PLAN

1.0 OVERVIEW AND OBJECTIVES

The objective of this Soils Management Contingency Plan (SMCP) is to provide guidelines for management of soil material during any future activities which would breach cover systems/materials at the ITT Heat Transfer (ITT) site. This SMCP addresses environmental concerns associated with soil impacts identified through a Voluntary Cleanup Agreement (VCA), which activities were performed in support of receiving a letter of Assignable Release and Covenant Not to Sue from the New York State Department of Environmental Conservation (NYSDEC), dated June 8, 2005.

The site is an active industrial property currently owned by ITT. The facility consists of two buildings totaling 184,778 square feet on approximately 24 acres of property. The site is bordered to the south and west primarily by residential properties. The land to the north and east is used by Niagara Mohawk Power Co., and is traversed by unpaved service roads. In addition, a railroad owned and operated by Niagara Mohawk is located adjacent to the northernmost service road.

The ITT facility has been occupied by ITT since 1986. Prior to ITT's occupancy, the site was owned by American Standard, the precursor company to ITT Standard. American Standard occupied the site from 1966 to 1986. From 1947 to 1966, U.S. Rubber Reclaiming Co., Inc., a tire recycling facility, operated at the site. Prior to the construction of the facility in 1947, the land was undeveloped.

The site has been characterized during several previous investigations, which are referenced below. The user of this SMCP should refer to the previous investigation reports for more detail, as needed.

This SMCP has been reviewed and approved by the NYSDEC as shown in Appendix A (*will attach approval letter upon receipt from NYSDEC*).

2.0 NATURE AND EXTENT OF CONTAMINATION

Three previous environmental investigations were performed on a voluntary basis by ITT as follows:

- Quantitative Environmental Survey Program (QESP at the ITT Standard Facility, Cheektowaga, New York (H2M Associates Inc.1997);
- Supplement to the Quantitative Environmental Survey Program (Golder Associates, Inc.1999); and
- Summary of Investigations Performed on Ball Fields, ITT Heat Transfer Facility, Cheektowaga, New York", (Golder Associates Inc., October, 2003).

- “Report on Soil Remediation NYSDEC Voluntary Cleanup Program ITT Heat Transfer Facility”, (Golder Associates Inc., August 2003).

The reports for these investigations were previously submitted to the NYSDEC by ITT. Eleven (11) Areas of Potential Concern (APCs) were identified. The APCs and site groundwater quality were investigated to determine whether or not past facility operations and activities in those areas had impacted soil and groundwater. These areas are shown on Figure 1. To accomplish this task, H2M performed geophysical surveys, soil sampling, test pitting, and groundwater monitoring in 1997.

Based on the initial H2M investigation, APC-8 (Ball Fields) was no longer considered to be an area of potential concern. However, after the NYSDEC’s review of the previous investigation results described above, the NYSDEC requested additional investigations of APC-8 as part of the investigations associated with the VCA. At the request of the NYSDEC, additional subsurface soil and groundwater investigations were performed at the facility as part of the VCA and included APC-8 (Ball Fields). After additional sampling in APC-8, no further action was recommended.

The Voluntary Cleanup Supplemental Investigation, as part of the VCA, was performed by Golder in March and April 2002. The Supplemental Investigation included the installation of two additional temporary groundwater monitoring wells, the collection of groundwater samples from the new temporary monitoring wells and existing six monitoring wells (total of eight wells), and the collection of surface and subsurface soil samples.

VOCs were detected in samples collected by Golder from existing monitoring wells at the site. Based on the results of the supplemental investigation, and given the limited extent and low concentrations of VOCs in the groundwater and that groundwater at the Site is not currently nor will likely be used in the foreseeable future as a potable water source. Consequently, no further action was recommended for groundwater at the site.

Based on review of the soil analytical results presented in the APC-8 (Ball Fields) investigation, (Golder Associates, October, 2003), there were no Volatile Organic Compounds (VOCs) or Semi-Volatile Organic Compounds (SVOCs) detected in the Ball Fields soil samples SS-10 through SS-13 at levels above TAGM 4046. Therefore, no further action was recommended for the APC-8 (Ball Fields) area. Based on review of the groundwater analytical results, the VOCs (acetone, bromomethane and methylene chloride) detected in the groundwater sample collected from the existing monitoring well near the Ball Fields (MW-7) were also found to be present in the trip, field and/or method blank associated with this sample. Therefore, these VOCs are believed to be laboratory related contaminants and are not believed to be present in the groundwater.

Petroleum impacted soil was encountered in the area identified as APC-10 (Figure 1). The impacted material was visually present in an approximate 2 to 6-inch gravel layer located at a depth of 2.1 and 2.6 feet below ground surface (ft bgs). Based on the results of the supplemental investigation, ITT elected to remove and dispose the petroleum impacted soil in APC-10, as documented in the “Report on Soil Remediation NYSDEC Voluntary Cleanup Program ITT Heat Transfer Facility”, (Golder Associates Inc., August 2003).

3.0 COVENANTS AND RESTRICTIONS

As described above, the activities under the VCA were performed in support of receiving a letter of Assignable Release and Covenant Not to Sue from the NYSDEC, dated June 8, 2005. The letter

references required deed restrictions, which are specified in the Declaration of Covenants and Restrictions, dated November 30th, 2004, and which are presented below.

- First, the property subject to this Declaration of Covenants and Restrictions is described in Appendix “A” and made a part hereof.
- Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State’s citizens, hereinafter referred to as “The Relevant Agency”, is first obtained, there shall be no disturbance of soils or excavation of the Property, which results in unacceptable human exposure to contaminated soils. Any disturbance of soils or excavation of the Property that is in conformance with a Soil Management Contingency Plan prepared by the owner of the Property and approved, in writing, by the Relevant Agency shall not be deemed to result in unacceptable human exposure to contaminated soils.
- Third, the owner of the Property shall prohibit the Property from ever being used for purposes other than for industrial use without the express written waiver of such prohibition by the Relevant Agency.
- Fourth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Relevant Agency.
- Fifth, the owner of the Property shall continue in full force and effect any institutional and engineering controls required under the Agreement and maintain such controls unless the owner first obtains permission to discontinue such controls from the Relevant Agency. The owner of the Property shall certify annually, by the tenth day of April, commencing April 2005, to the Relevant Agency, that all covenants and restrictions set forth in this Declaration are in place or have been complied with, and identify any excavation activities undertaken during the past year.
- Sixth, any soils generated during the excavations from the area defined as “APC-10” on the attached Appendix B will be tested and analyzed by an approved laboratory from the New York State Environmental Laboratory Approval Program (ELAP). If sample results exceed guidance values listed in either the Department’s Technical, Administrative Guidance Memorandum (TGAM) HWR-94-4046 (Revised) or the Department’s STARS Memo #1 (Petroleum Contaminated Soil Guidance Policy), the owner of the Property will remediate or properly dispose the excavated material.
- Seventh, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property and shall provide that the owner and its successors and assigns consent to enforcement by the Relevant Agency of the prohibitions and restrictions that Paragraph X of the Agreement require to be recorded, and hereby covenant not to contest the authority of the Relevant Agency to seek enforcement.

- Eighth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

4.0 SOIL MANAGEMENT CONTINGENCY PLAN

The following sections present the SMCP in detail.

4.1 Purpose and Description of Surface Cover System

All areas of the site must have a soil cover system. The purpose of the surface cover system is to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The site is currently covered by vegetated soil, asphalt, concrete and the two industrial buildings. In the event that areas are to be disturbed and new cover materials are to be placed over impacted soils/fill, the cover system will consist of one of the following types of clean material:

- Soil: 12 inches of vegetated soil cover underlain by a demarcation layer, in outdoor vegetated areas.
- Asphalt: a minimum of 6 inches of material (asphalt and sub base material) in areas that will become roads, sidewalks, and parking lots. Actual cross sections will be determined based on the intended use of the area.
- Concrete: a minimum of 6 inches of material (concrete and sub base material) in areas that will become slab-on-grade structures or for roads, sidewalks, and parking lots in lieu of asphalt. For slab-on-grade structures, an 8-mil polyethylene vapor barrier will be placed beneath the concrete for protection against VOC vapor migration if this is determined to be a potential concern in the area. Actual cross sections will be determined based on the intended use of the area.

4.2 Management of Soils/Fill and Long Term Maintenance of Cover System

This section provides environmental guidelines for management of subsurface soils/fill and the long-term maintenance of the existing cover system during any future intrusive work which breaches the cover system. ITT plans to use this SMCP for all projects involving excavations or the disturbance of soils.

The SMCP includes the following conditions:

- Any breach of the cover system, including for the purposes of construction or utilities work, must be replaced or repaired using an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. The repaired area must be covered with clean soil and reseeded or covered with impervious product such as concrete or asphalt, as described in Section 4.1, to prevent erosion in the future.

- Control of surface erosion and run-off of the entire property at all times, including during construction activities. This includes proper maintenance of the vegetative cover established on the property.
- Site soil that is excavated and is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives and as per Section 4.3.
- Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and it is placed beneath a cover system component as described in Section 4.1.
- Any off-site fill material brought to the site for filling and grading purposes will be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. Off-site borrow sources should be subject to collection of one representative composite sample per source. The sample should be analyzed for Target Compound List (TCL) VOCs, SVOCs, pesticides, PCBs, and Target Analyte List (TAL) metals plus cyanide. The soil will be acceptable for use as cover material provided that all parameters meet the NYSDEC Protection of Public Health Industrial Restricted Use Soil Cleanup Objectives included in 6 New York State Codes, Rules and Regulations (NYCRR) Part 375 Table 375-6.8(b), as per Section 4.4. This table is included as Appendix B.
- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed relative to this SMCP. Invasive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety.
- ITT will complete and submit to the NYSDEC an annual report by April 10th of each year. This annual report will contain a certification that the institutional controls put in place pursuant to the Declaration of Covenants and Restrictions have not been altered and are still effective; that the remedy and protective cover have been maintained; and that the conditions at the site are fully protective of public health and the environment.

If the cover system has been breached during the year covered by that annual report, the owner of the property (currently ITT) will include the following in that annual report:

- A certification that all work was performed in conformance with this SMCP.

4.3 Excavated and Stockpiled Soil/Fill Disposal

Soil/fill that is excavated as part of development activities which can not be used as fill below the cover system will be further characterized prior to transportation off-site for disposal at a permitted facility. For excavated soil/fill with visual evidence of contamination (i.e., staining or elevated Photoionization detector (PID) measurements), one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil/fill. For excavated soil/fill that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite sample and a duplicate sample will be collected for 2000 cubic yards of stockpiled soil, and a minimum of 1 sample will be collected for volumes less than 2000 cubic yards.

The composite sample will be collected from five locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. The composite sample will be analyzed by a NYSDOH ELAP-certified laboratory for pH (EPA Method 9045C), TCL SVOCs, pesticides, and PCBs, and TAL metals, and cyanide. The grab sample will be analyzed for TCL VOCs.

Soil samples will be composited by placing equal portions of fill/soil from each of the five composite sample locations into a pre-cleaned, stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scope or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form will be prepared.

Additional characterization sampling for off-site disposal may be required by the disposal facility. To potentially reduce off-site disposal requirements/costs, ITT may also choose to characterize each stockpile individually. If the analytical results indicate that concentrations exceed the standards for RCRA characteristics, the material will be considered a hazardous waste and will be properly disposed off-site at a permitted disposal facility within 90 days of excavation. If the analytical results indicate that the soil is not a hazardous waste, the material will be properly disposed off-site at a non-hazardous waste facility. Stockpiled soil will not be transported on or off-site until the analytical results are received.

4.4 Subgrade Material

Subgrade material used to backfill excavations or placed to increase site grades or elevation shall meet the following criteria.

- Excavated on-site soil/fill which appears to be visually impacted will be sampled and analyzed. If analytical results indicate that the contaminants, if any, are present at concentrations below the NYSDEC recommended industrial restricted use soil cleanup objectives included in Table 375-6.8(b) (attached as Appendix B), the soil/fill can be used as backfill on-site.
- Any off-site fill material brought to the site for filling and grading purposes will be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.
- Off-site soils intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a).
- If the contractor designates a source as "virgin" soil, it will be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use.
- Non-virgin soils will be tested via collection of one composite sample per 500 cubic yards of material from each source area.

4.5 Dust Control

The surface of un-vegetated or disturbed impacted soil/fill areas will be wetted with water or other dust suppressive agents to control dust during construction. Any sub-grade material left exposed during extended interim periods (greater than 90 days) prior to placement of final cover will be covered with a temporary cover system (i.e., tarps, spray type cover system, etc.) or planted with vegetation to control fugitive dust to the extent practicable.

4.6 Construction Water Management

Pumping of water (i.e., ground water and/or storm water that has accumulated in an excavation) from excavations, if necessary, will be done in such a manner as to prevent the migration of particulates, soil/fill, or unsolidified concrete materials, and to prevent damage to the existing subgrade. Water pumped from excavations will be managed properly in accordance with all applicable regulations so as to prevent endangerment of public health, property, or any portion of the construction.

In areas where ground water may be contaminated, the ground water in excavations will be field screened for VOCs and observed for any noticeable sheen. Water in the excavations will not be discharged to the ground surface if:

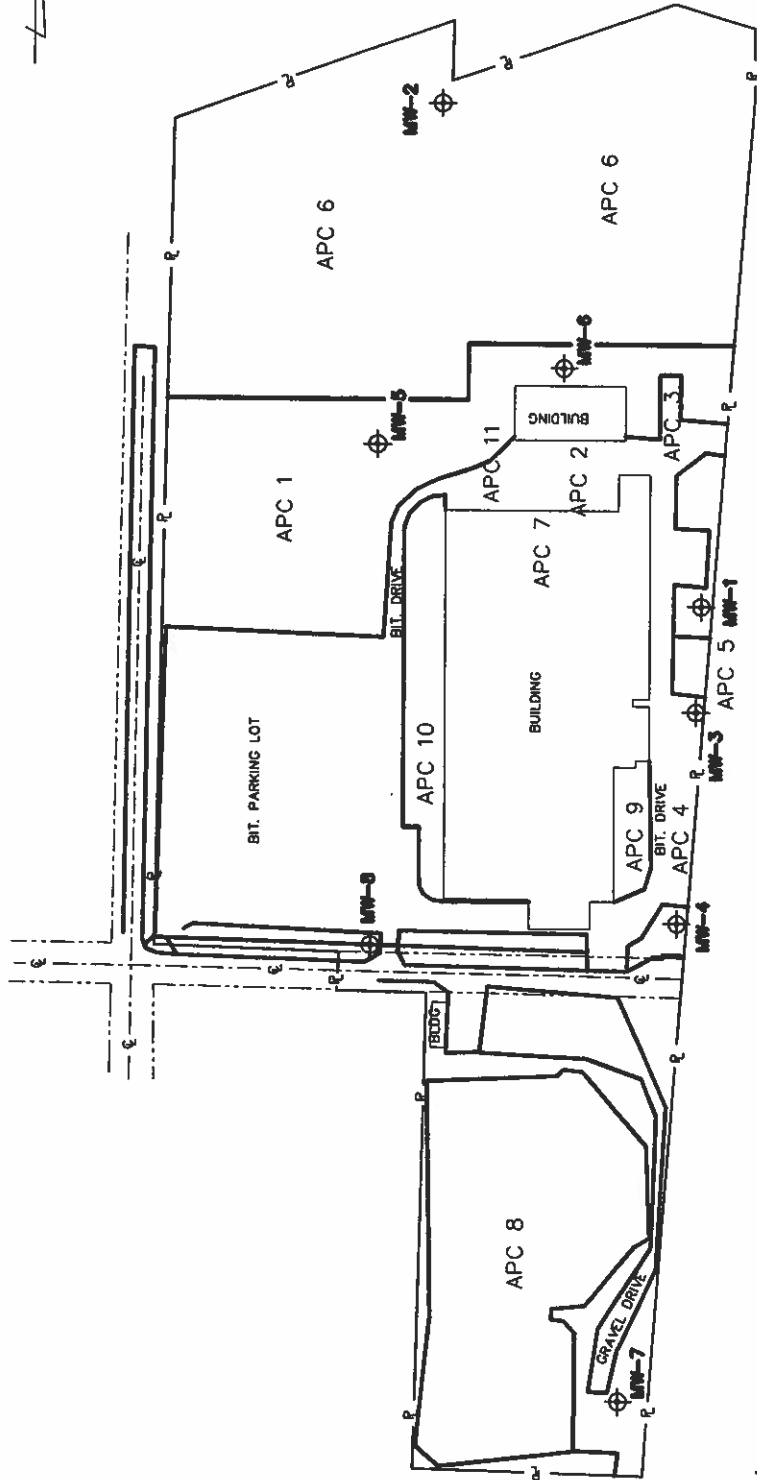
- Staining or PID measurements above background are observed in the excavation, or
- A sheen is present on the water surface.

If any of these conditions exist, the water pumped from the excavations will be containerized and analyzed in accordance with the Surface Water and Ground Water Quality Standards set forth in 6 NYCRR Part 703.5 and the local sewer authority discharge permit. If the water meets the surface water and ground water quality standards, it may be discharged to the ground surface. If the water does not meet the surface water and ground water quality standards, it may be discharged to the local sewer authority under a discharge permit. If the water quality is such that the local sewer authority discharge permit requirements will be exceeded, or the local sewer authority will not approve the discharge to a sewer, it will be transported off-site for proper disposal or treated on-site via a treatment system that has been approved by the NYSDEC.

Runoff from surface discharges shall be controlled. No discharges will enter a surface water body without proper permits. ITT currently holds a NYSDEC state pollution discharge elimination system (SPDES) storm water discharge permit (#NYR00A687) and monitors storm water on a semi-annual basis for biological and chemical oxygen demand, total suspended solids, phosphorus, total kjeldahl nitrogen, oil and grease, VOCs and SVOCs, and selected metals.

4.7 Unexpected Conditions

During any disturbance of the cover system, if any conditions are encountered not covered by this SMCP, such as buried drums, underground storage tanks, free product, etc., work should be stopped and the ITT Environmental Health & Safety Manager contacted. This SMCP can not cover every possible condition and a reassessment of this plan may be necessary to determine if additional measures may be needed to prevent human contact with potentially impacted subsurface materials.



APC Descriptions

- APC 1 — Tire Recycling Areas
- APC 2 — Pre-1982 Waste Disposal Practices
- APC 3 — Current Hazardous Waste Storage Area
- APC 4 — Past Hazardous Waste Storage Area
- APC 5 — Transformers
- APC 6 — Possible Former Landfilling Area
- APC 7 — Former Fuel Oil Storage Tank
- APC 8 — Standard Park Ball Field
- APC 9 — Drain Outside Loading Dock
- APC 10 — Roof Drain Adjacent to Vapor Degreaser Vents
- APC 11 — Catch Basin

LEGEND

- MONITORING WELL LOCATION



CLIENT/PROJECT

ITT INDUSTRIES
ITT HEAT TRANSFER FACILITY
CHEEKTOWAGA, NEW YORK



Golder Associates Buffalo, New York

TITLE

SITE LAYOUT AND AREAS OF POTENTIAL CONCERN (APCs) MAP

DRAWN BEC

CHECKED DCW

REVIEWED

BCS

DATE 07/18/07

SCALE AS SHOWN

FILE NO. 073-89038

JOB NO. 073-89038

DWG NO. 07389038A138

FIGURE 1

Appendix A

(Approval letter upon receipt from NYSDEC)

Appendix B

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16'	16'	16'	16'	13'	16'
Barium	7440-39-3	350'	400'	400'	10,000 ^u	433'	820'
Beryllium	7440-41-7	14'	72'	590'	2,700'	10'	47'
Cadmium	7440-43-9	2.5'	4.3'	9.3'	60'	4'	7.5'
Chromium, hexavalent ^u	18540-29-9	22'	110'	400'	800 ^{1u}		19'
Chromium, trivalent ^u	16065-83-1	36'	180'	1,500'	6,800'	41'	NS
Copper	7440-50-8	270'	270'	270'	10,000 ^u	50'	1,720'
Total Cyanide ^u		27'	27'	27'	10,000 ^u	NS	40'
Lead	7439-92-1	400'	400'	1,000'	3,900'	63'	450'
Manganese	7439-96-5	2,000'	2,000'	10,000 ^u	10,000 ^u	1600'	2,000'
Total Mercury		0.81'	0.81'	2.8'	5.7'	0.18'	0.73'
Nickel	7440-02-0	140'	310'	310'	10,000 ^u	30'	130'
Selenium	7782-49-2	36'	180'	1,500'	6,800'	3.9'	4'
Silver	7440-22-4	36'	180'	1,500'	6,800'	2'	8.3'
Zinc	7440-66-6	2200'	10,000 ^u	10,000 ^u	10,000 ^u	109'	2,480'
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58'	100 ^a	500 ^u	1,000 ^u	NS	3.8'
4,4'-DDE	72-55-9	1.8'	8.9'	62'	120'	0.0033 ^u	17'
4,4'-DDT	50-29-3	1.7'	7.9'	47'	94'	0.0033 ^u	136'
4,4'-DDD	72-54-8	2.6'	13'	92'	180'	0.0033 ^u	14'
Aldrin	309-00-2	0.019'	0.097'	0.68'	1.4'	0.14'	0.19'
alpha-BHC	319-84-6	0.097'	0.48'	3.4'	6.8'	0.04 ^u	0.02'
beta-BHC	319-85-7	0.072'	0.36'	3'	14'	0.6'	0.09'
Chlordane (alpha)	5103-71-9	0.91'	4.2'	24'	47'	1.3'	2.9'
delta-BHC	319-86-8	100 ^a	100 ^a	500 ^u	1,000 ^u	0.04 ^u	0.25'
Dibenzofuran	132-64-9	14'	59'	350'	1,000 ^u	NS	210'
Dieldrin	60-57-1	0.039'	0.2'	1.4'	2.8'	0.006'	0.1'
Endosulfan I	959-98-8	4.8'	24'	200'	920'	NS	102'
Endosulfan II	33213-65-9	4.8'	24'	200'	920'	NS	102'
Endosulfan sulfate	1031-07-8	4.8'	24'	200'	920'	NS	1,000 ^u
Endrin	72-20-8	2.2'	11'	89'	410'	0.014'	0.06'
Heptachlor	76-44-8	0.42'	2.1'	15'	29'	0.14'	0.38'
Lindane	58-89-9	0.28'	1.3'	9.2'	23'	6'	0.1'
Polychlorinated biphenyls	1336-36-3	1'	1'	1'	25'	1'	3.2'
Semivolatiles							
Acenaphthene	83-32-9	100 ^a	100 ^a	500 ^u	1,000 ^u	20'	98'
Acenaphthylene	208-96-8	100 ^a	100 ^a	500 ^u	1,000 ^u	NS	107'
Anthracene	120-12-7	100 ^a	100 ^a	500 ^u	1,000 ^u	NS	1,000 ^u

Appendix B

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Benz(a)anthracene	56-55-3	1 ^f	1 ^f	5.6	11	NS	1 ^f
Benzo(a)pyrene	50-32-8	1 ^f	1 ^f	1 ^f	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1 ^f	1 ^f	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Benzo(k)fluoranthene	207-08-9		1	3.9	56	110	NS
Chrysene	218-01-9	1 ^f		3.9	56	110	NS
Dibenz(a,h)anthracene	53-70-3	0.33 ^e	0.33 ^e		0.56	1.1	NS
Fluoranthene	206-44-0	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Fluorene	86-73-7	100 ^a	100 ^a	500 ^b	1,000 ^c		30
Indeno(1,2,3-cd)pyrene	193-39-5	0.5 ^f	0.5 ^f		5.6	11	NS
m-Cresol	108-39-4	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
Naphthalene	91-20-3	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	12
o-Cresol	95-48-7	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
p-Cresol	106-44-5		34	100 ^a	500 ^b	1,000 ^c	NS
Pentachlorophenol	87-86-5		2.4	6.7	6.7	55	0.8 ^e
Phenanthrene	85-01-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Phenol	108-95-2	100 ^a	100 ^a	500 ^b	1,000 ^c		30
Pyrene	129-00-0	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Volatiles							
1,1,1-Trichloroethane	71-55-6	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.68
1,1-Dichloroethane	75-34-3		19	26	240	480	NS
1,1-Dichloroethene	75-35-4	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33
1,2-Dichlorobenzene	95-50-1	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1.1
1,2-Dichloroethane	107-06-2		2.3	3.1	30	60	10
cis-1,2-Dichloroethene	156-59-2		59	100 ^a	500 ^b	1,000 ^c	NS
trans-1,2-Dichloroethene	156-60-5	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.25
1,3-Dichlorobenzene	541-73-1		17	49	280	560	NS
1,4-Dichlorobenzene	106-46-7		9.8	13	130	250	20
1,4-Dioxane	123-91-1		9.8	13	130	250	0.1 ^e
Acetone	67-64-1	100 ^a	100 ^b	500 ^b	1,000 ^c		2.2
Benzene	71-43-2		2.9	4.8	44	89	70
Butylbenzene	104-51-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	12
Carbon tetrachloride	56-23-5		1.4	2.4	22	44	NS
Chlorobenzene	108-90-7	100 ^a	100 ^a	500 ^b	1,000 ^c		40
Chloroform	67-66-3		10	49	350	700	12
Ethylbenzene	100-41-4		30	41	390	780	NS
Hexachlorobenzene	118-74-1	0.33 ^e		1.2	6	12	NS
Methyl ethyl ketone	78-93-3	100 ^a	100 ^a	500 ^b	1,000 ^c	100 ^a	0.12
Methyl tert-butyl ether	1634-04-4		62	100 ^a	500 ^b	1,000 ^c	NS

Appendix B

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methylene chloride	75-09-2	51	100 ^a	500 ^b	1,000 ^c	12	0.05
n-Propylbenzene	103-65-1	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	3.9
sec-Butylbenzene	135-98-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	11
tert-Butylbenzene	98-06-6	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100 ^a	100 ^a	500 ^b	1,000 ^c	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5-Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100 ^a	100 ^a	500 ^b	1,000 ^c	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm). NS=Not specified. See Technical Support Document (TSD).

Footnotes:

- a) The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.
- b) The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.
- c) The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.
- d) The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.
- e) For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.
- f) For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
- g) This SCO is derived from data on mixed isomers of BHC.
- h) The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
- i) This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
- j) This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.