Site Management Plan Activities Work Plan During Press Brake Installation

Niagara Power Transformer Site

NYSDEC SSF Site No. 915146
1747 Dale Road
Buffalo, New York

Prepared For:
Niagara Power Transformer (NPT)
1755 Dale Road
Cheektowaga, New York 14225

Prepared By:
TRC Engineers, Inc.
1090 Union Road, Suite 280
West Seneca, NY 14224



TABLE OF CONTENTS

1.0 INTRODUCTION & PURPOSE 1
1.1 Purpose 1
1.2 Project Organization 1

2.0 SITE DESCRIPTION 2
2.1 Location & Background 2
2.2 Site Remedial History 2
2.3 Remaining Contamination 3
2.4 Constituents of Primary Concern (COPCs) 4
2.5 Standards, Criteria, and Guidance Values (SCGs) 4
2.6 Institutional & Engineering Controls (IC/ECs) 5
2.7 Utilities & Groundwater Use 6

3.0 SCOPE OF WORK 7
3.1 Pre-Installation Activities 7
3.1.1 Utility Clearance 7
3.1.2 Change-of-Use Form 7
3.1.3 Import Request Form 7
3.1.4 Pre-Installation Test Boring & Soil Sampling 7
3.2 Excavation Activities 9
3.3 Exclusion Zone & NPT Employees 10
3.4 Decontamination of Non-Dedicated Equipment 10
3.4.1 Heavy Equipment Decontamination 10
3.4.2 Wipe Sampling Verification 11
3.5 Waste Management and Disposal 12
3.6 Documentation 13

4.0 SUPPORT DOCUMENTS 14
4.1 Health & Safety Plan (HASP) 14
4.2 Community Air Monitoring 14

5.0 REPORTING AND SCHEDULE 16
5.1 Reporting 16
5.2 Schedule 16

6.0 REFERENCES 17

FIGURES

Figure 1	Site Location & Vicinity Map
Figure 2	Site Map
Figure 3	1996/97 Remedial Excavation Limits

APPENDICES

Appendix A	Press Brake Machine Construction Details
Appendix B	Change of Use Form
Appendix C	Import Request Form
Appendix D	Site Specific Health & Safety Plan (HASP)

1.0 Introduction & Purpose

In response to a New York State Department of Environmental Conservation (NYSDEC or Department) request, TRC Engineers, Inc. (TRC) has prepared this *Site Management Plan (SMP) Activities Work Plan for Press Brake Installation* on behalf of Niagara Power Transformer (NPT) Corporation for the 1747 Dale Road NY State Superfund (SSF) Program Site (915146), located in the Town Cheektowaga, Erie County, New York (herein referred to as the "Site", "1747 Dale Road SSF Site", or "SSF Site") (see **Figures 1 and 2**). The Site has been designated by the NYSDEC as a Class 4 Inactive Hazardous Waste Site, which is a site that has been properly closed but requires continued management and has been assigned Site No. 915146.

1.1 Purpose

The purpose of this Work Plan is to provide the Department a requested scope of work, and supporting documents, for intrusive activities associated with the installation of NPT's new press brake machine within the existing mechanical shop/office building of the SSF Site (see **Figure 2**). This Work Plan is intended to replace the Excavation Work Notification previously provided to the Department dated September 8, 2025.

The work described herein will be performed in general accordance with the NYSDEC- and New York State Department of Health (NYSDOH-) approved Site Management Plan (SMP) for the SSF Site (dated March 2012) and TRC's site-specific Health and Safety Plan (HASP) for the SSF Site (dated September 2025).

1.2 Project Organization

TRC Engineers, Inc. will complete SMP oversight activities during the installation of a new press brake machine on behalf of the NPT. TRC will also be responsible for verifying and certifying that the intrusive activities performed at the SSF Site associated with the installation of NPT's new press brake machine were completed in conformance with the March 2012 SMP, this approved Work Plan, and NYSDEC DER-10 requirements.

TRC personnel and subcontractors have been identified for this project, which are summarized in the table below:

Company	Role	Name	Contact Information
NYSDEC	Project Manager	Veronica Kreutzer	P: (716) 851-7232 E: veronica.kreutzer@dec.ny.gov
NYSDOH	Project Manager	Jim Sullivan	P: (518) 402-5584 E: Jim.Sullivan@health.ny.gov
NPT	Owner's Representative	Stan Hatch	P: (716) 896-6500 E: shatch@nptransformer.com
TRC	Project Manager	Bryan Hann, P.G.	P: (716) 870-1165 E: bhann@trccompanies.com
TRC	Field Team	TBD	TBD
Trec Environmental, Inc.	Excavation Service	Keith Hambley	P: (585) 314-6189 E: khambley@trecenv.com
Brawdy Construction, Inc.	Press Brake Installation Services	Jimmy Eades	P: (716) 467-4081 E: jeades@brawdyconstruction.com
Pace Analytical Services, Inc.	Analytical Testing	Pat Filey	P: (716) 392-3932 E: Patrick.filey@pacelabs.com
WTS	Waste Disposal	Bill Kuss	P: (716) 345-9878 E: wkuss@wtsonline.com

2.0 Site Description

2.1 Location & Background

The NPT 1747 Dale Road SSF Site is approximately 3.6-acres located in an industrial area in the Town of Cheektowaga, County of Erie, New York and is identified as SLB #102.03-3-5. There are three contiguous parcels owned by NPT: 1747 Dale Road (SSF Site No. 915146), 1755 Dale Road Brownfield Cleanup Program (BCP) Site, and 0 Dale Road (currently a stormwater retention basin). The 1747 Dale Road SSF Site is bounded by Dale Road to the north, CSX rail corridor to the south, NPT's main manufacturing and office building parcel to the east (1755 Dale Road BCP Site), and a cemetery to the west (see **Figures 1 and 2**).

On the Site, there is an active mechanical shop (with offices) building and a warehouse building with an asphalt covered parking area between the buildings, called the South Yard Area (see **Figure 2**). The existing facility previously handled polychlorinated biphenyl (PCB)-containing dielectric fluids for use in transformer rebuilding, repair, and manufacture. A limited portion of the mechanical shop/office building was contaminated by the handling of PCBs. Additional off-site streams, ditches, and retention ponds were also contaminated because of off-site transport of PCBs by sediments and surface waters. Historical structures include a former tank farm and storage building located south of the South Yard Area, both of which have been removed. The location of both existing and historical structures is shown in **Figure 2**.

The March 2012 SMP provides additional information related to site topography/drainage and geology/hydrogeology.

2.2 Site Remedial History

The Site remedial history provided in this section is as reported in the *Interim Remedial Measure (IRM) Summary Report* dated January 2005. The information has been provided for context.

No record exists of industrial activity on the site prior to NTC purchase and construction of the manufacturing facility in 1958. Until 1980, oils containing PCBs were stored or used on site as insulating fluids in the manufacture of liquid-filled transformers. Past releases of PCB-contaminated transformer oil resulted in the contamination of the soil, groundwater, surface water drainage ditches, and a nearby storm water retention pond.

Under a Consent Order (CO) with the New York State Department of Environmental Conservation (NYSDEC), NTC conducted a Remedial Investigation/Feasibility Study (RI/FS) that was finalized in September 1993.

A Record of Decision (ROD) was signed on December 30, 1993. Based on the results of the RI/FS for the site and the criteria identified in the RI/FS for the evaluation of alternatives, NYSDEC selected a remedy to excavate on-site and off-site PCB-contaminated soils and sediments, dispose of the PCB-contaminated soils and sediments in an appropriate off-site landfill, and conduct long-term monitoring of groundwater.

Remediation at the NTC site started in 1996 and was completed in September 1997. The top 4-foot layer of soil on the majority of the site was excavated and approximately 45,000 tons of contaminated soil and sediment were disposed of offsite. The site was backfilled with clean sandy silt/clay material. Along the N/S and E/W ditches, excavation of contaminated soil extended up to 12 feet. A liner was installed in sections of the N/S and E/W ditches underlying the stone. Soils in the N/S and E/W areas that were found to be contaminated above cleanup goals were removed

with the exception of two areas; excavation of contaminated soils was ceased at a depth of approximately 12 feet in the area near catch basin (CB)-A, and excavation was limited to approximately 2.5 feet in the E/W ditch behind the adjacent St. Adalbert's Cemetery. At this latter location, unmarked graves were encountered at approximately 2.5 feet below the original E/W ditch invert. Based on an agreement between NYSDEC, New York State Department of Health (NYSDOH), and St. Adalbert's Cemetery, remedial work was suspended in this area, and the contaminated unmarked graves were capped with geotextile, sorbent materials, pea gravel, high-density polyethylene (HDPE) liner, and soil. The ditch was realigned and shifted to the south. Both hazardous and nonhazardous waste remain at depths greater than 2.5 feet below ground surface (bgs) in the E/W ditch in this area. A culvert running beneath the railroad was sealed off where it formerly connected to the E/W ditch. No further remediation was done in the rail yard south of the site or to groundwater on the site. Excavation was not conducted beneath the active NTC facility.

Sediments in the storm water retention pond to the west of the site were excavated to a depth of approximately 18 inches below original grade at the eastern end of the pond, and approximately 12 inches below original grade for the remainder of the pond. All piped discharges to the pond were flushed, cleaned, and inspected. Remedial activities also included remediation of the storm sewer immediately south of Broadway by excavating and disposing of pavement and soils above and adjacent to the sewer pipe, cleaning and disposing of the existing storm pipe, and installing a new storm sewer pipe.

A replacement storm sewer system was installed beneath NTC's south parking lot and eastern driveway, which directs storm water from the site to one discharge point at the N/S ditch.

Recontamination of the N/S ditch was reported in late April 1997, after an oily emulsion containing 300 milligrams per kilogram (mg/kg) of PCBs was found in the concrete tank just upstream of the head of the N/S ditch. In June 1997, an emergency water treatment system (EWTS) was installed at the head of the N/S ditch to treat a portion of the stormwater from the site and reduce the potential for recontamination of the previously remediated downstream areas.

In 1998, roof drains from the main NTC building were cleaned and re-routed to connect to the storm collection system at the site.

During 1998, NYSDEC conducted additional sampling to identify point sources of PCBs in the site storm water runoff. Potential PCB sources identified by NYSDEC as a result of this study include NTC's manufacturing operations, residual contamination in the soil and groundwater on site, and/or contamination beneath the facility. Based on the 1998 NYSDEC investigation results and recommendations, EEEPC conducted an additional site investigation to further identify the source of continued PCB release. This investigation, completed in August 2000, found that the on-site storm sewers act as a preferential pathway for the migration of residual contamination at the site. The contamination is believed to be primarily beneath the former main transformer manufacturing and office facility (currently the mechanical shop/office building).

2.3 Remaining Contamination

From March 1996 to September 1997 significant environmental remediation has been performed at the SSF Site, which involved excavation and off-site disposal of approximately 45,000 tons of PCB-contaminated soil. During pre-design activities of the ROD selected site remedy, soil contamination beneath the South Yard Area was found to extend greater than 4-feet below ground surface (ft. bgs). This deeper "corridor" of PCB contamination, measuring approximately ±60-feet wide by ±175-feet long, was not removed because it would have compromised the substructure

of the existing mechanical shop/office building. Additionally, the soil/fill beneath the existing mechanical shop/office building was not removed and should be considered PCB-contaminated. As such, the soil within the South Yard Area Corridor from 4.0 to 20+ ft. bgs and soil/fill beneath the mechanical shop/office building are considered remaining contamination on the 1747 Dale Road SSF Site (see **Figure 3**). Concentrations exceeding the SMP-required Site-Specific Cleanup Goals (SSCGs) of 1 ppm for surface soil (less than 12 inches), and 10 ppm for subsurface soil (greater than 12 inches) and Part 375 IUSCO of 25 ppm should be expected in these areas of the SSF Site.

2.4 Constituents of Primary Concern (COPCs)

Historical remedial activities performed on the 1747 Dale Road SSF Site have resulted in residual concentrations of PCBs (primarily Aroclor 1260 with lower concentrations of Aroclor 1254) in subsurface soil, surface water, groundwater, and sediment. Higher concentration PCBs reportedly remain within deeper subsurface soil (from 4.0 to 20+ ft bgs) in the South Yard Area Corridor as well as beneath the mechanical shop/office building (see **Figure 3**). The RI reported that shallow seasonally perched groundwater is impacted with PCBs and chlorinated benzene compounds (DCB and TCB). PCBs may continue to be present in low-level concentrations in stormwater and sediment south of the SSF Site. The RI also reported PCBs and chlorinated benzene compounds were not detected in bedrock groundwater.

As such, PCBs are considered the Constituents of Primary Concern (COPCs) in subsurface soil, surface water, groundwater, and sediment at the SSF Site along with DCB and TCB in shallow groundwater. Below are the estimated concentrations within various environmental media:

- Surface soil (less than 10 inches) – none.
- Surface water and sediment – low-level PCB concentrations (< 1 ppm).
- Subsurface soil (greater than 10 inches) (outside the South Yard Area Corridor) – low level concentrations (< 10 ppm).
- Subsurface soil within the South Yard Corridor from 4.0 to 20+ ft. bgs – elevated PCB concentrations from 10 to 96 ppm.
- Subbase and subsoils beneath the mechanical shop/office building – unknown PCB concentrations.
- Shallow groundwater – PCB concentrations from 1 to 10 ug/L and DCB/TCB as high as 335 ug/L.
- Bedrock groundwater – none.

2.5 Standards, Criteria, and Guidance Values (SCGs)

In accordance with the SMP, if PCBs or other contaminants are detected at concentrations exceeding the standards, criteria, and guidance values (SCGs) defined by NYSDEC for surface waters, groundwater, sediments, or excavated soils, the exceedance must be reported to NYSDEC as soon as the information becomes available. SSCGs for PCBs established for the Site are summarized below:

Soil and Sediments

Surface (less than 12 inches): 1 ppm
Subsurface (greater than 12 inches below ground surface): 10 ppm

Groundwater, Surface Water, and Stormwater

Not to exceed 0.065 micrograms per liter (ug/L)

The NYSDEC-defined SCGs for soil and sediment are the Part 375 Industrial Use Soil Cleanup Objectives (IUSCOs) and the Protection of Groundwater Soil Cleanup Objectives (PGWSCOs). The NYSDEC-defined SCGs for groundwater, surface water, and stormwater are the Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards/Guidance Values (AWQSs/GVs) (June 1998). The NYSDEC-defined SCGs for the Site are summarized below:

Matrix	Contaminant	IUSCO (mg/kg)	PGWSCO (mg/kg)	AWQS/GV (ug/L)
Soil & Sediment	PCBs	25	3.2	NA
Groundwater, Surface Water, & Stormwater	***Volatile Organic Compounds***			
	1,2-DCB	NA	NA	3
	1,3-DCB	NA	NA	3
	1,4-DCB	NA	NA	3
	1,2,4-TCB	NA	NA	5
	Organic Pesticides and PCBs			
	PCBs	NA	NA	0.09 (sum)

Note: DCB = dichlorobenzene, TCB = trichlorobenzene, and NA = not applicable.

2.6 Institutional & Engineering Controls (IC/ECs)

IC/ECs are needed to protect human health and the environment from the remaining contamination present in soil and groundwater beneath the site. The IC/ECs are components of the SMP. The procedures for managing site-specific IC/ECs which are described in detail within the March 2012 SMP.

ICs at the 1747 Dale Road SSF Site are necessary to ensure the effectiveness of the implemented remedial actions and to prevent existing or future property owners from destroying the ECs (i.e., asphalt-covered South Yard Area as well as the subsurface concrete/slurry walls). The ICs identified at the 1747 Dale Road SSF Site are included in the Declaration of Covenants and Restrictions, which stipulates the following:

- No construction activity shall be allowed beneath the main building's floor slab(s) or in the asphalt-covered South Yard Area without written approval from NYSDEC. Detailed drawings prepared by a NYS Professional Engineer (NYS PE) showing the proposed activities and specifications fully describing the work, the construction or restoration effort, and the hazardous material handling and disposal procedures will be required prior to obtaining approval.
- No construction activity shall be allowed in the vicinity of the concrete/slurry cutoff walls around the perimeter of the asphalt-covered South Yard Area without written approval from NYSDEC. Detailed drawings prepared by a NYS PE showing the proposed activities and specifications will be required prior to obtaining approval. The drawings shall clearly show the location of the concrete/slurry cutoff walls, and the specifications shall describe excavation warnings and concrete/slurry cutoff wall repair or replacement requirements.
- Excavated material and/or debris removed as part of any maintenance of the storm sewers in the asphalt-covered South Yard Area shall be treated as hazardous material unless shown to be otherwise by analytical testing.

ECs at the 1747 Dale Road SSF Site are necessary to prevent exposure to the remaining contamination in soil and sediments at the Site, which include a final cover system consisting of

softscape (e.g., topsoil) and hardscape (buildings, concrete, asphalt) placed over the southern portion of the Site. The soil cover on the southern portion of the Site is comprised of a minimum of 12 inches of clean topsoil and vegetative cover, and the South Yard Area and eastern driveway is covered with asphalt to prevent surface water infiltration. In 2016, NPT constructed an approximately 34,000 square foot steel-sided warehouse building south of the South Yard Area, which contributes to the final cover as hardscape. A subsurface concrete cutoff wall and slurry wall were installed around the southern perimeter of the South Yard Area to prevent the off-site migration of PCB-contaminated shallow groundwater. In addition to the soil and asphalt cover, a system of on- and off-site groundwater monitoring wells, and surface water and sediment sampling locations are used to monitor the effectiveness of the final cover and shallow groundwater flow mitigation systems.

The Soils Management Plan (Soil MP), provided in *Appendix F* of the SMP, provides guidance for the proper handling and final disposition of PCB-contaminated spoil materials excavated in and around the 1747 Dale Road SSF Site. Any proposed maintenance of drainage structures, including asphalt pavement; excavation of existing soils, including subbase materials and subfloor slab materials; decommissioning of monitoring wells/piezometers; and excavation of other subsurface utilities must be evaluated for the potential to expose PCBs or other contaminants to the environment which requires NYSDEC review and approval.

2.7 Utilities & Groundwater Use

The Site is serviced by overhead electric and underground natural gas, public water, public sewer, and private stormwater utilities, all of which are assumed to enter the Site from Dale Road.

As reported in the 1993 Remedial Investigation (RI) Report, groundwater in the shallow perched zone at the Site does not represent a significant groundwater resource due to its apparent seasonal existence, low hydraulic conductivity, and small saturated thickness. There are no known users of overburden groundwater in the vicinity of the Site and based upon available records, there are no municipal or private water supply bedrock wells within three miles of the Site.

3.0 Scope of Work

The scope of work presented in this section will be performed in support of the installation of a new press brake machine within the existing mechanical shop/office building located at the 1747 Dale Road SSF Site (see **Figure 2**). Work activities will include pre-installation activities including utility clearance, completion and submission of NYSDEC-required forms, advancement of a pre-installation test boring with sample collection and analysis, followed by saw cutting and removing the existing concrete floor (at a location adjacent to an existing press brake) to facilitate installation of a new concrete mat footing for a new Press Brake machine (see **Figure 2**). New press brake construction details are provided in **Appendix A**. Based on building design drawings provided by NPT, the existing concrete floor is anticipated to be six inches thick.

TRC will be contracting Trec Environmental, Inc. (TREC), a drilling and remediation contractor with over 20 years of experience, to perform the pre-installation drilling activities as well as sawcutting, concrete removal, and subsoil excavation. TRC will also be utilizing WTS, Inc. (WTS), a waste and by-product management company founded in 1982, for waste disposal coordinating services. NPT has contracted Brawdy Construction, Inc. (Brawdy), a concrete and masonry company that specializes in earthwork, foundations, flatwork, and masonry, to install the new press brake foundation and machine.

3.1 Pre-Installation Activities

3.1.1 Utility Clearance

Prior to any intrusive activities, Dig Safe New York (Call 811) will be contacted by TREC a minimum of three business days in advance of the work and informed of the intent to perform intrusive work at the Site. It is anticipated that NPT personnel will adequately identify and locate any private underground utilities within the work area. If underground utilities are present within the work limits and are anticipated to interfere with intrusive activities, mitigating measures will be discussed with NPT.

3.1.2 Change-of-Use Form

According to the NYSDEC, a Change-of-Use (COU) Form is required because this project is considered a change to the Site which "*may increase the exposure of site contaminants to the environment or the public*". The press brake project will be penetrating the final cover (i.e., concrete floor of the existing mechanical shop/office building), potentially exposing PCB-contaminated subsoil that has not been previously remediated. As such, a COU Form has been prepared for Department review and approval which is provided in **Appendix B**.

3.1.3 Import Request Form

To support the mat footing for the new press brake machine, approximately ±7 CYs of 2-inch crusher run material will be imported and placed at the bottom of the excavation. As such, an Import Request Form has been prepared for Department review and approval for this gravel product which is provided in **Appendix C**. Since this is virgin material from a permitted quarry, and less than 10% passes the #100 sieve, sampling and analysis is not required.

3.1.4 Pre-Installation Test Boring & Soil Sampling

As indicated in Section 2.8, the material beneath the mechanical shop/office building has not been previously remediated and the PCB concentration beneath the floor is unknown. To close this data gap ahead of the press brake installation project, TRC is proposing to advance a shallow pre-installation test boring within the footprint of the planned press brake machine to determine if

there is NAPL present as well as facilitate subsoil waste characterization and subsurface soil end-point sampling. *Subsoil is defined as soil located immediately below the concrete floor, assumed to be ±0.5 to ±3.0 feet below finished floor, and subsurface soil is defined as soil below ±3.0-feet from finished floor.* Pre-sampling and analysis information will be used to determine if modifications to the scope of work are necessary.

A 6-inch diameter concrete coring drill (or concrete saw) will be used to provide access through the mechanical shop/office building floor. Upon removal of the concrete core, TRC personnel will examine the bottom of the core and condition of the visible subsoil, specifically looking to identify the presence of NAPL. A track-mounted direct-push drill rig (or approved other) will then be employed to advance one soil boring approximately 4-feet into the subsoil and subsurface soil (anticipated to be approximately ±4.5 feet below finished floor). The soil boring sample will be retrieved via a 4-foot dedicated macro-core (with acetate sleeve) and examined by qualified TRC personnel for characterization by visual observation in accordance with ASTM Method D2488: *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*. The recovered core sample will also be inspected for impacts via visual and/or olfactory observations. Soil samples will be field screened for the presence of VOCs using a PID equipped with a 10.6 eV lamp. *Poor recovery of this single boring may facilitate the need for additional adjacent borings within the same concrete hole to retrieve the appropriate quantity of soil for laboratory analytical testing.*

One (1) waste characterization soil sample of the subsoil located immediately below the concrete (anticipated to be approximately ±0.5 to ±3.0 ft. bgs) will be collected to represent the planned depth of subsoil to be excavated during this project (0.5-feet of concrete plus 2.5-feet of soil, or 3.0-feet from the finished floor). The waste characterization soil sample will be analyzed for the following landfill-required laboratory analysis:

- Target Compound List (TCL) volatile organic compounds (VOCs) (Method 8260/5035);
- TCL semi-volatile organic compounds (SVOCs) (Method 8270);
- TCL PCBs (Method 8082);
- Toxicity Characteristic Leaching Procedure (TCLP) VOCs (Method 8260);
- TCLP SVOCs (Method 8270);
- TCLP Resource Conservation and Recovery Act (RCRA) metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) (Method 6010/7470);
- Ignitability (Method 1030);
- Corrosivity (Method 9045);
- Reactivity (Method 7.3); and,
- Paint filter (Method 9095).

The calculated perimeter of the excavation will be approximately 56 linear feet (LF) with an area of approximately 180 square feet (SF) (±18 feet long by ±10 feet wide). Based on these calculations and in accordance with DER-10 5.4(b)(5), one bottom and two sidewall samples are required. As such, one (1) additional subsurface soil sample will be collected from the ±3.0 to ±4.5-foot interval for TCL PCB (Method 8082) laboratory analysis. This sample will represent the Department-requested bottom endpoint sample of subsurface soil that will remain following excavation of subsoils. Sidewall endpoint samples will be collected upon completion of the excavation (see Section 3.2).

In general, soil samples will be collected using a dedicated stainless steel sampling spoon. A Terra Core® soil sampler will be used to collect VOC samples. Representative soil samples will

be placed in pre-cleaned laboratory provided sample bottles, cooled to 4ºC in the field, and transported under chain-of-custody to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory.

All non-dedicated drilling tools and equipment will be decontaminated in accordance with USEPA and NYSDEC protocols for PCB-contaminated media (see Section 3.4).

3.2 Excavation Activities

As previously stated, excavation activities will include saw cutting, removal of existing concrete floor, and excavation of subsoil material (at a location adjacent to an existing press brake) to facilitate installation of a new concrete mat footing for a new press brake machine. The following steps describe the scope of work:

- The existing concrete floor of the mechanical shop/office building will be cut approximately ±10-feet wide by ±18-feet long. Potable water will be available to mitigate generated dust during cutting.
- Concrete will be broken up and removed to expose the existing subbase gravel and/or subsoil. Removed concrete will be visually assessed by TRC personnel for the presence of NAPL and placed in a lined and covered roll-off container (or approved other).
- Following concrete removal exposing the subbase material, the floor of the open pit will be screened with a hand-held photoionization detector (PID) equipped with a 10.6 eV lamp along with visual/olfactory observations in accordance with the SMP. The bottom of the pit will be inspected for the presence of grossly contaminated subsoils (i.e., excessive odors, presence of NAPL, elevated PID, etc.). The subsoil assessment will be performed to verify the findings of the pre-installation boring (see Section 3.1.4).
- Based on extensive previous investigation/remediation knowledge of the Site, elevated PID readings are not considered to be an issue during this project as PCBs are non-volatile. However, grossly impacted subsoils may be encountered. If grossly impacted subsoils are not observed/identified, work will continue. If grossly impacted subsoils are observed, absorbent spill pads (or approved other absorbent) will be utilized to soak up the visible product to the extent practicable. Used absorbent pads will be placed in a lined container for off-site disposal.
- If grossly impacted subsoils are not observed or once visible product has been addressed to the satisfaction of the Department, the excavation will be advanced approximately 2.5-feet into the subsoils (roughly ±3.0-feet below the finished floor) to facilitate installation of the gravel subbase and concrete mat footing for the new press brake machine. Excavated spoils (e.g., soil, subbase gravels, and left-over broken concrete) will be carefully removed and placed into a lined (and covered) roll-off container.
- In accordance with DER-10 5.4(b)(5) and upon confirmation and acceptance of excavation depth and subsoil condition by Brawdy personnel, TRC will collect the requisite endpoint samples from the bottom of two sidewall locations for TCL PCB (Method 8082) laboratory analysis. These two samples will represent the Department-requested sidewall end-point samples of subsurface soil that will remain following excavation of subsoils.
- Following approval by Brawdy, TREC will install a demarcation layer followed by placement and compaction of approximately ±12-inches of clean 2-inch crusher run gravel to the specifications determined by Brawdy. New mat footing rebar, base anchors, and concrete will then be installed by Brawdy personnel. The demarcation layer will consist of a woven geotextile and will extend throughout the excavation bottom and sides.
- The press brake machine foundation will be completed with a concrete curb and concrete pour back to match the existing finished floor grade. Upon proper curing time, the new press brake machine will then be installed.

- Groundwater is not anticipated to be encountered during this project.

Based on the planned dimensions and our calculations, the volume of generated spoils (concrete, subsoil, and/or subbase gravel) will be approximately ±20 cubic yards (CYs) (±3.5 CYs of concrete and ±16.5 CYs of subsoil). Using conversion factors of 2.0 tons per CY for the concrete and 1.6 tons per CY for the subsoil, yields approximately ±34 tons (±7.0 tons of concrete and ±27.0 tons of subsoil) of material requiring off-site disposal.

3.3 Exclusion Zone & NPT Employees

Prior to commencement of drilling and/or excavation activities associated with installation of the new press brake machine, the area around the work zone will be cordoned off to prevent access from unauthorized and/or untrained personnel (i.e., the Exclusion Zone). Due to the nature of the planned work, self-contained, negative-pressure enclosures cannot be used, however, all NPT personnel not directly involved with the planned work will be absent from the room in which the work will occur and building occupancy will be kept to a minimum. During drilling and excavation, NPT employees will not be required to be within the vicinity of the project, this includes the Exclusion Zone or Contamination Reduction Zone as designated by the HASP (see **Appendix D**). NPT, NYSDEC, and/or NYSDOH employees may be present within the Support Zone or escorted into the Exclusion Zone by TRC personnel.

Real-time Community Air Monitoring Program (CAMP) air monitoring will be performed during proposed press brake drilling and excavation activities at the Site as described in Section 4.2.

3.4 Decontamination of Non-Dedicated Equipment

Every attempt will be made to utilize dedicated sampling field equipment during the project. However, if non-dedicated field equipment is required and/or used, the equipment will be decontaminated, at a minimum, with a non-phosphate detergent (i.e., Alconox®) and potable water mixture, rinsed with distilled water, and air-dried before each use in accordance with TRC's standard operating procedures (SOPs). All decontaminated sampling equipment will be kept in a clean environment prior to sample collection. Heavy equipment (i.e., excavator bucket) will be decontaminated by the subcontractor, as necessary, and in general accordance with Section 3.4.1.

3.4.1 Heavy Equipment Decontamination

Decontamination of heavy equipment (e.g., excavator buckets, etc.) used in PCB-contaminated environments requires stringent adherence to U.S. Environmental Protection Agency (USEPA) protocols to prevent the spread of toxins. The process involves containment, multi-stage washing (mechanical) with specific USEPA-approved performance-based organic decontamination fluid (PODF) (such as CAPSUR® PCB Extraction Solvent, diesel fuel, kerosene, or terpene) to remove the contaminants, and proper disposal of all waste. The decontamination layout will progress from "dirty" to "clean" areas, with a separate area for drying.

The following is a basic description of the process that will be employed to decontaminate heavy equipment following use on this project.

1. Prepare the decontamination area.
    - Set up a contained space, typically on an impermeable surface lined with heavy-duty polyethylene sheeting.

- Construct a berm or use sandbags to contain wash water runoff. The area should be upwind of the ongoing remediation activities to prevent cross-contamination.
- Gather all necessary supplies, including non-phosphate detergent, USEPA-approved PODFS, potable water, brushes, and collection drums for wastewater and solids.

2. Perform a multi-stage wash
   - **Station 1: Gross decontamination.** Use brushes and a non-phosphate detergent solution (i.e., Alconox) to remove all visible dirt, soil, and debris. Use a pressure sprayer with potable water to rinse the loosened materials into the containment area.
   - **Station 2: Solvent wash.** Apply an USEPA-approved PODF to all contaminated, non-porous surfaces. For some heavy equipment, the USEPA specifies that soaking is required to effectively dissolve PCBs.
   - **Station 3: Rinse.** Rinse the equipment thoroughly to remove all solvents and residue. For a final rinse, use potable or deionized water to prevent introducing new contaminants.
3. Air dry the equipment
   - Move the clean equipment to a designated, clean area to allow it to air dry completely. The drying area must also be on clean plastic sheeting to prevent re-contamination.
   - If the equipment is not to be used immediately and if practicable, wrap it in clean plastic sheeting or aluminum foil.
4. Conduct post-decontamination verification sampling
   - After the equipment has been thoroughly dried, representative wipe samples will be collected from the surfaces that had contact with PCBs (see Section 3.3.2). The number and location of samples must follow EPA guidelines as indicated in 40 CFR Part 761 Subpart P.
   - The non-porous surface is considered decontaminated if wipe samples show PCB concentrations below the NYSDEC (and USEPA) standard of 10 micrograms per 100 square centimeters (ug/cm^2) (per 761.61(a)(4)(ii)). If not, the cleaning process must be repeated.
5. Manage and dispose of waste
   - Collect all solid wastes, including polyethylene sheeting, gloves, protective clothing, and used rags, and place them into separate, properly labeled containers.
   - Pump all contaminated wash water into drums labeled for liquid waste. EPA guidelines for the transportation and disposal of PCB-contaminated waste will be followed.

3.4.2 Wipe Sampling Verification

Wipe sample verification analysis for PCBs will be performed in accordance with USEPA 40 CFR 761.123, which specifies a 100 cm² surface area wiped with a hexane-saturated gauze pad. The sample is then folded and placed in a vial for transport to a lab for analysis, with field blanks prepared to check for cross-contamination. The NYSDEC/USEPA clean-up criterion for non-porous surfaces is 10 µg/100 cm².

TRC's wipe sample collection procedure is as follows:

1) Gather Supplies: Obtain a PCB wipe sampling kit, which includes gauze pads, hexane in ampules, a collection vial, and a sampling template.
2) Wear PPE: Put on gloves and safety glasses.
3) Prepare the Wipe: Remove pre-moistened wipes from the lab.
4) Wipe the Sample Area: Use a 100 cm² template to define the area to be sampled. Wipe the designated area by making side-to-side and then up-and-down motions to collect the sample.
5) Fold and Store the Wipe: After wiping, fold the gauze pad inward (soiled side facing in) and place it into a collection vial.
6) Cap and Label the Vial: Cap the vial and attach the provided label with sample information.
7) Prepare a Field Blank: Remove a new, clean hexane-soaked wipe in the same way as the samples, but do not wipe any surface. Open the wipe, re-fold it, and place it back in a clean vial, then seal and label it as a field blank to identify potential contamination from handling and transport. This blank should be handled alongside the actual samples and sent to the lab for comparison.
8) Complete Chain of Custody: Fill out the chain of custody form, recording the site and location, the surface sampled (e.g., table, floor), and the surface area (e.g., 100 cm²).

Wipe samples and field blank(s) will be returned to pre-cleaned laboratory provided sample bottles, cooled to 4ºC in the field, and transported under chain-of-custody to a NYSDOH ELAP-certified analytical laboratory for TCL PCB (Method 8082) analysis.

3.5 Waste Management and Disposal

Waste material generated during this project (i.e., drilling soil cores, excavated spoils, concrete, decontamination water, etc.) will be placed in sealed/covered containers (e.g., steel drums, roll-off, etc.) and labeled for subsequent off-site disposal. All generated waste drums will be labeled alphanumerically regarding contents, origin, and date of generation using a paint stick marker on two sides and the top of each drum. Characterization analytical results of containerized waste material will be used to determine if spoils require off-Site disposal as hazardous (greater than or equal to 50 ppm) or non-hazardous (less than 50 ppm). Waste containers will be securely staged on-site pending characterization analyses and disposal assessment. TRC field personnel will coordinate the on-site handling and temporary storage of waste containers with NPT personnel. Transportation, characterization sampling results, and offsite disposal arrangements, will be discussed with WTS personnel, as necessary.

The following waste materials are expected to be generated during this project:

- Soil cuttings and unused soil samples generated during pre-installation boring activities will be temporarily containerized within steel drums as described above. Due to the anticipated small volume, containerized drilling spoils will be combined with excavation material generated during planned excavation activities.
- Excavated material generated during this project will be placed in a lined roll-off container with a canvas cover. The representative waste characterization sample collected during pre-installation test boring activities will be used to determine the hazardous characteristic (i.e., hazardous, or non-hazardous) (see Section 3.1.4). This determination will dictate whether the spoil materials will require off-site disposal at a solid waste landfill (non-hazardous) or hazardous waste landfill. As previously calculated, approximately ±20 CYs, or ±34 tons, of generated spoils will require off-site disposal.

- Decontamination water (and any settled solids) will be containerized in steel drums as described above, characterized, and sent off-site for disposal in a timely manner. The volume of generated decontamination water is unknown.
- Discarded personal protective equipment (PPE) (i.e., latex gloves, Tyvek, paper towels, used absorbent pads, etc.) and disposable sampling equipment (i.e., stainless-steel spoons) will be placed in sealed plastic garbage bags and disposed of as municipal solid waste.

One (1) representative water sample will be collected via direct grab from the decontamination water generated for the following landfill-required laboratory analysis:

- TCL VOCs (Method 8260);
- TCL SVOCs (Method 8270);
- TCL PCBs (Method 8082);
- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) (Method 6010/7470);
- Ignitability (Method 1030);
- Corrosivity (Method 9045);
- Reactivity (Method 7.3); and,
- Paint filter (Method 9095).

3.6 Documentation

Project field activities will be documented in a Project Field Book. This documentation will provide a record of activities conducted at the Site. Entries will be signed and dated at the end of each day of fieldwork (or as produced) by the Field Team Leader. Field notes will include, at a minimum, the: date and time of all entries, names of personnel on site, weather conditions (temperature, precipitation, etc.), location of activity, description of activity, and CAMP data including exceedances of CAMP action levels and subsequent corrective actions(s), if applicable (note that NYSDEC and NYSDOH will be notified within 24-hours of any CAMP action level exceedances observed during project activities). Intrusive and sampling activities will be logged and photographed as necessary to document the project. Progress photographs will be collected to document development activities and intrusive construction activities. Field personnel will, at a minimum, complete the following standard field forms (see Appendix D):

- Chain of Custody Form (per Pace)
- Equipment Calibration Log (pre-completed by rental company)
- Photographic Log
- Tailgate Safety Meeting Form
- Test Pit Excavation Log (as necessary)
- Problem Identification Report (as necessary)
- Corrective Measures Report (as necessary)

4.0 Support Documents

4.1 Health & Safety Plan (HASP)

TRC has prepared a site-specific Health and Safety Plan (HASP) for use by our employees in accordance with 40 CFR 300.150 of the NCP and 29 CFR 1910.120. The HASP, provided in **Appendix D**, includes the following site-specific information:

- Emergency contact information for on- and off-site personnel
- Health and safety roles & responsibilities
- A hazard assessment.
- Training requirements.
- A site control program including definitions of exclusion, contaminant reduction, and other work zones.
- Monitoring procedures for site operations.
- Safety procedures.
- Personal protective clothing and equipment requirements for various field operations.
- Disposal and decontamination procedures.
- Assessment of environmental conditions and stressors.
- Tailgate health and safety meeting requirements.
- Emergency response plan.

Health and safety activities will be monitored throughout project activities. A member of the field team will be designated to serve as the on-site Health and Safety Officer throughout this project. This person will report directly to the Project Manager (PM) and the ECR Safety Manager. The HASP will be subject to revision as necessary, based on new information that is discovered during the project activities.

4.2 Community Air Monitoring

Real-time community air monitoring will be performed during proposed press brake drilling and excavation activities at the Site. A CAMP is included in *Appendix C* of the HASP (see **Appendix D**). Particulate and VOC monitoring will be performed at two indoor locations within the existing manufacturing building during intrusive activities in accordance with the HASP (*Special Requirements*); one opposite the walls of adjacent occupied rooms and the other adjacent to the nearest intake vent of the mechanical shop area (or other NYSDEC-approved locations). The CAMP is consistent with the requirements for community air monitoring at remediation sites as established by the NYSDOH and NYSDEC. Accordingly, it follows procedures and practices outlined under NYSDEC's DER-10 (May 2010) *Appendix 1A* (NYSDOH's Generic Community Air Monitoring Plan) and *Appendix 1B* (Fugitive Dust and Particulate Monitoring). Project activities will be performed within 20 feet of potentially exposed individuals or structures, so the CAMP *Special Requirements* will also be followed.

TRC's designated contractor, TREC, will mitigate dust and/or odors via engineering controls (e.g., water, foam, etc.) during concrete cutting/removal and/or excavation activities described herein, as necessary. Escalation of level D personal protective equipment (PPE) to level C (respiratory and/or dermal) may be considered if dust/odors cannot be mitigated. Appropriate corrective

actions will be taken if field screening and/or CAMP results indicate exceedances of the Generic CAMP (and *Special Requirements*) thresholds, including NYSDEC notification.

In accordance with the NYSDOH Generic CAMP *Special Requirements*, the following thresholds will be used:

- If total VOC concentrations opposite the walls of *adjacent occupied rooms* or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.
- If total particulate concentrations opposite the walls of *adjacent occupied rooms* or next to intake vents exceed 150 mcg/m^3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.
- Due to the nature of contamination and planned remedial activities within a building, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may need to be monitored.

NYSDEC and NYSDOH will be notified within 24 hours of any CAMP action level exceedances observed during project activities. CAMP exceedances and corrective measures will be also reported in daily field logs, as discussed in Section 3.5.

5.0 Reporting and Schedule

Upon completion of the press brake installation, a comprehensive summary report will be completed describing the project tasks completed as described below.

5.1 Reporting

Upon completion of project activities and as a requirement of the SMP, TRC will prepare a summary report to be included in the next Periodic Review Report (PRR), which is currently prepared by and submitted to the NYSDEC every five years. The summary report will be submitted directly to the NYSDEC Project Manager and include field observations, screening results, endpoint sample locations on a site map, representative project photographs, sample analytical results (i.e., endpoint, waste characterization, wipe, decontamination water), and any NYSDEC/NYSDOH and/or project correspondence compiled during the work (as applicable). Following landfill approvals and off-site disposal, waste profiles, landfill disposal acceptance, and scale receipts will be appended to the summary report. It is anticipated that the Department will incorporate this summary report into the next PRR.

5.2 Schedule

A tentative project schedule for the major tasks to be performed in support of the press brake installation is presented below.

- Pre-Installation Drilling – Friday, November 7, 2025
- Saw cut and excavation activities – week of November 17, 2025
- Work Plan activities described herein are anticipated to be substantially completed by November 21, 2025.
- Press brake machine installation – immediately following completion of the excavation described herein will occur sometime during the week of November 17, 2025. Actual start and completion dates of the press brake machine installation will be determined by NPT and Brawdy.
- Comprehensive summary report submitted to NYSDEC – week of December 1, 2025

This schedule is dependent on Department verification that the December 13, 1995 Consent Order between the NYSDEC and NPT has been satisfactorily terminated. The unknown status of the CO has been acknowledged by both the NYSDEC and NPT, the determination of which may delay portions of this schedule.

6.0 References

The following references were used during the preparation of this Work Plan.

Ecology and Environment Engineering, P.C. *Remediation Summary Report for Niagara Transformer Corporation Site (915146), Cheektowaga, New York*. December 1997.

Ecology and Environment Engineering, P.C. *Final Site Management Plan for the Niagara Transformer Corporation Site, Town of Cheektowaga, Erie County, New York, NYSDEC Site No. 9-15-146*. March 2012.

Ecology and Environment Engineering, P.C. *Interim Remedial Measure Summary Report for Niagara Transformer Corporation, NYSDEC Site No. 9-15-146, Town of Cheektowaga, Erie County, New York*. January 2005.

Ecology and Environment Engineering, P.C. *Final Operations and Maintenance Manual for the Niagara Transformer Corporation Site, Site No. 9-15-146, Cheektowaga (T), Erie (C)*. October 1995 (revised January 1996, updated December 1997, updated March 2005).

New York State Department of Environmental Conservation. 6 NYCRR *Part 375 Environmental Remediation Programs*. December 2006.

New York State Department of Environmental Conservation. DER-10; *Technical Guidance for Site Investigation and Remediation*. May 2010.

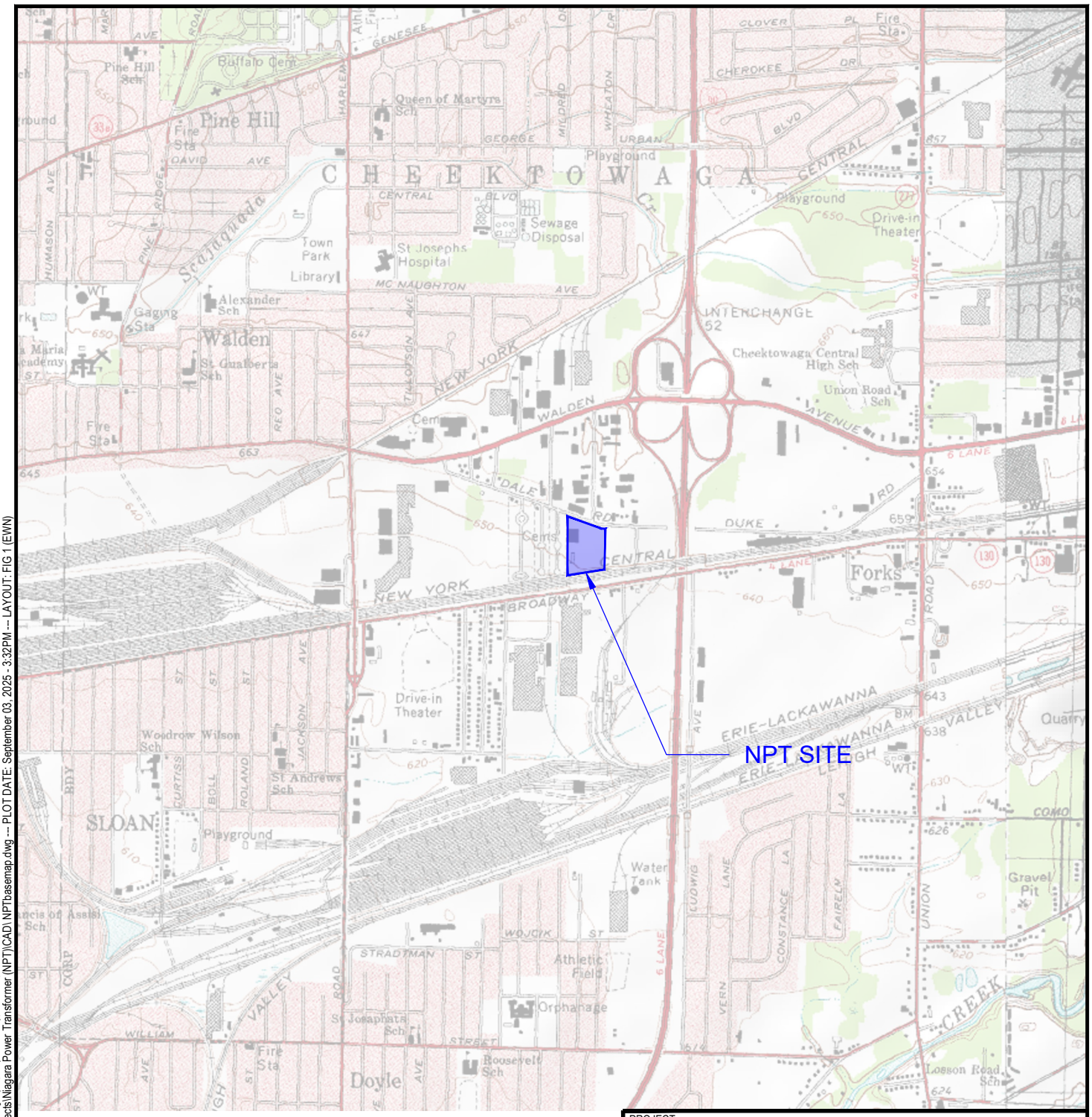
New York State Department of Environmental Conservation. *Explanation of Significant Differences, Niagara Transformer Site (ID No. 9-15-146), Town of Cheektowaga, Erie County*. November 20, 1995.

New York State Department of Environmental Conservation. *Record of Decision, Niagara Transformer Site I.D. Number 9-15-146*. December 1993.

United States Environmental Protection Agency (USEPA). 1990. *Guidance on remedial actions for Superfund sites with PCB contamination. EPA/540/G-90/007.* August 1990.

Woodward-Clyde Consultants. *Remedial Investigation of Niagara Transformer Corporation*. August 13, 1993

FIGURES



N

2000' 0' 2000' 4000'

SCALE: 1 INCH = 2000 FEET
SCALE IN FEET
(approximate)

PROJECT:
NIAGARA POWER TRANSFORMER
1747 DALE ROAD SSF SITE (915146)
CHEEKTOWAGA, NEW YORK

TITLE:
SITE LOCATION & VICINITY MAP

DRAWN BY:	BCH	PROJ NO.:	668.941.0000.0000
CHECKED BY:	BCH		
APPROVED BY:	BCH		**FIGURE 1**
DATE:	SEPTEMBER 2025		

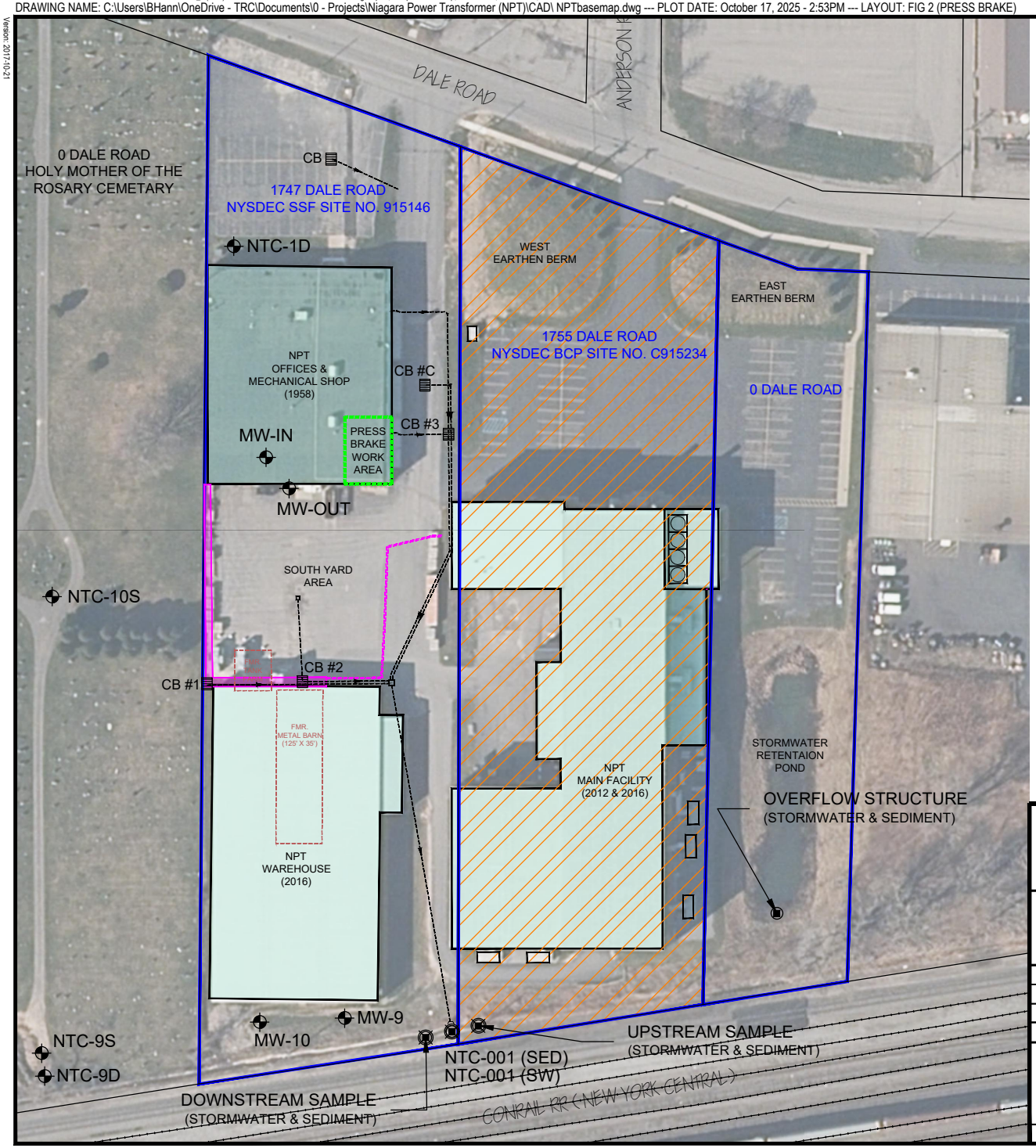
TRC
1090 Union Road
Suite 280
West Seneca, NY 14224
Phone: 716.289.2409
www.trccompanies.com

FILE NO.: NPTbasemap.dwg

8.5x11 -- USER:BHann -- ATTACHED XREFS: Check_2 (REV) -- ATTACHED IMAGES: Berms & Parking lot plan Hospital Route Map NPT Parcel NPT TOPO
DRAWING NAME: C:\Users\BHann\OneDrive - TRC\Documents\0 - Projects\Niagara Power Transformer (NPT)\CAD\ NPTbasemap.dwg --- PLOT DATE: September 03, 2025 - 3:32PM --- LAYOUT: FIG 1 (EWN)

Version: 2017-10-21

8.5x11 --- USER: BHann --- ATTACHED XREF'S: Cheek_2 (REV) --- ATTACHED IMAGES: Berms & Parking lot plan; Hospital Route Map; NPT Parcel; NPT TOPO;
DRAWING NAME: C:\Users\BHann\OneDrive - TRC\Documents\0 - Projects\Niagara Power Transformer (NPT)\CAD\ NPTbasemap.dwg --- PLOT DATE: October 17, 2025 - 2:53PM --- LAYOUT: FIG 2 (PRESS BRAKE)
Version: 2017-10-21



LEGEND:

- PROPERTY BOUNDARY
- BUILDING
- BCP SITE BOUNDARY
- CONCRETE CUTOFF WALL (APPROX.)
- SLURRY WALL (APPROX.)
- UTILITY - STORM SEWER
- CB — UTILITY - STORM SEWER CATCH BASIN
- MW-9 — SSF SITE NETWORK WELL
- NTC-001 (SED) — SSF SITE SEDIMENT SAMPLE
- NTC-001 (SW) — SSF SITE SURFACE WATER SAMPLE

N

120' 0' 120' 240'

SCALE: 1 INCH = 120 FEET
SCALE IN FEET
(approximate)

PROJECT:
NIAGARA POWER TRANSFORMER
1747 DALE ROAD SSF SITE (915146)
CHEEKTOWAGA, NEW YORK

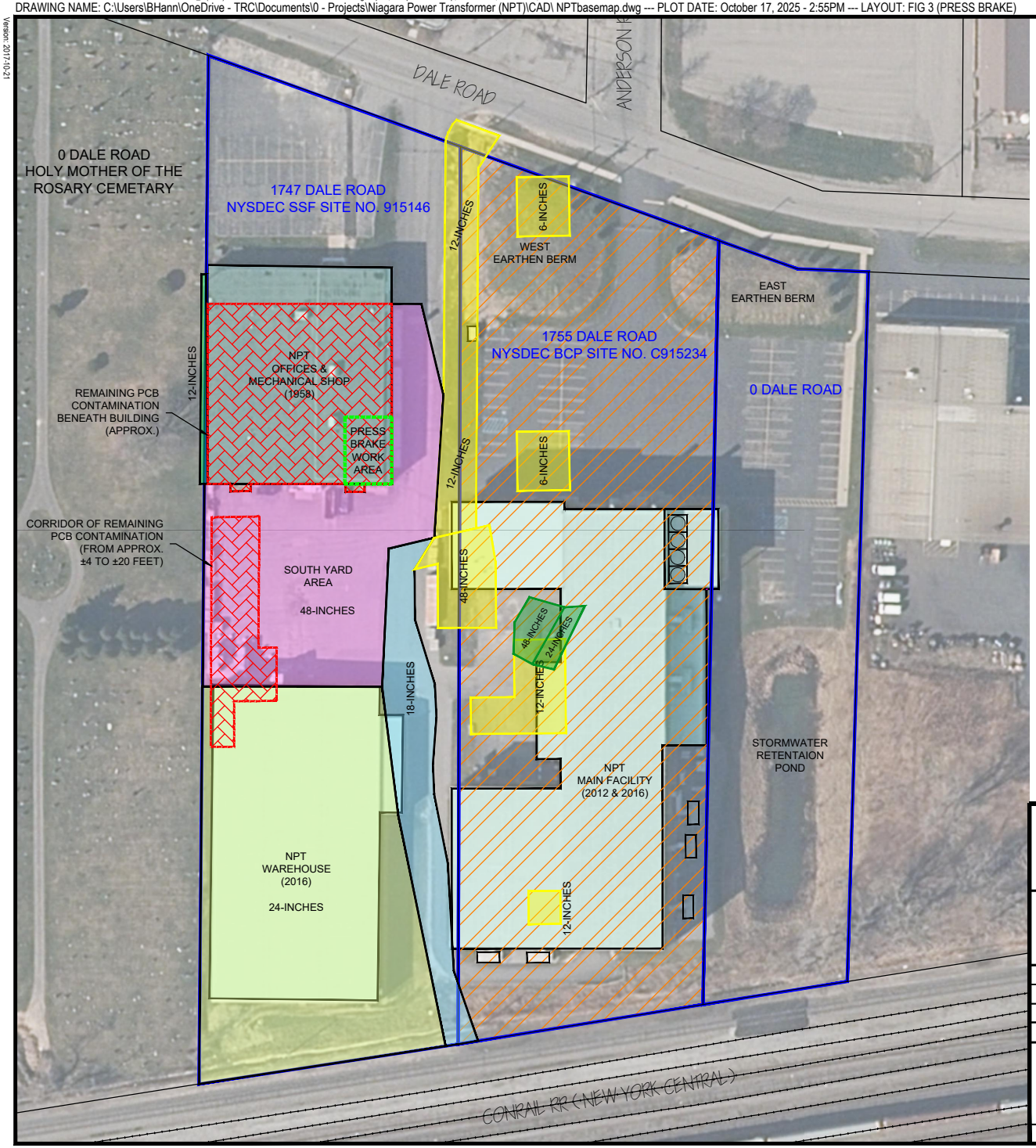
TITLE:
SITE PLAN

DRAWN BY:	BCH	PROJ NO.:	668941.0000.0000
CHECKED BY:	BMG		
APPROVED BY:	BCH		**FIGURE 2**
DATE:	OCTOBER 2025		

TRC
1090 Union Road
Suite 280
West Seneca, NY 14224
Phone: 716.289.2409
www.trccompanies.com

FILE NO.: NPTbasemap.dwg

8.5x11 --- USER: BHann --- ATTACHED XREF'S: Cheek_2 (REV) --- ATTACHED IMAGES: Berms & Parking lot plan; Hospital Route Map; NPT Parcel; NPT TOPO;
DRAWING NAME: C:\Users\BHann\OneDrive - TRC\Documents\0 - Projects\Niagara Power Transformer (NPT)\CAD\ NPTbasemap.dwg --- PLOT DATE: October 17, 2025 - 2:55PM --- LAYOUT: FIG 3 (PRESS BRAKE)
Version: 2017-10-21



LEGEND:

- PROPERTY BOUNDARY
- BUILDING
- BCP SITE BOUNDARY
- REMAINING CONTAMINATION
- 1996/97 SSF REMEDIAL EXCAVATION 12"
- 1996/97 SSF REMEDIAL EXCAVATION 18"
- 1996/97 SSF REMEDIAL EXCAVATION 24"
- 1996/97 SSF REMEDIAL EXCAVATION 48"
- 1997 STAGING AREA REMEDIAL EXCAVATION
- 2004 STAGING AREA REMEDIAL EXCAVATION

N

120' 0' 120' 240'

SCALE: 1 INCH = 120 FEET
SCALE IN FEET
(approximate)

PROJECT:
NIAGARA POWER TRANSFORMER
1747 DALE ROAD SSF SITE (915146)
CHEEKTOWAGA, NEW YORK

TITLE:
1996/97 REMEDIAL EXCAVATION LIMITS

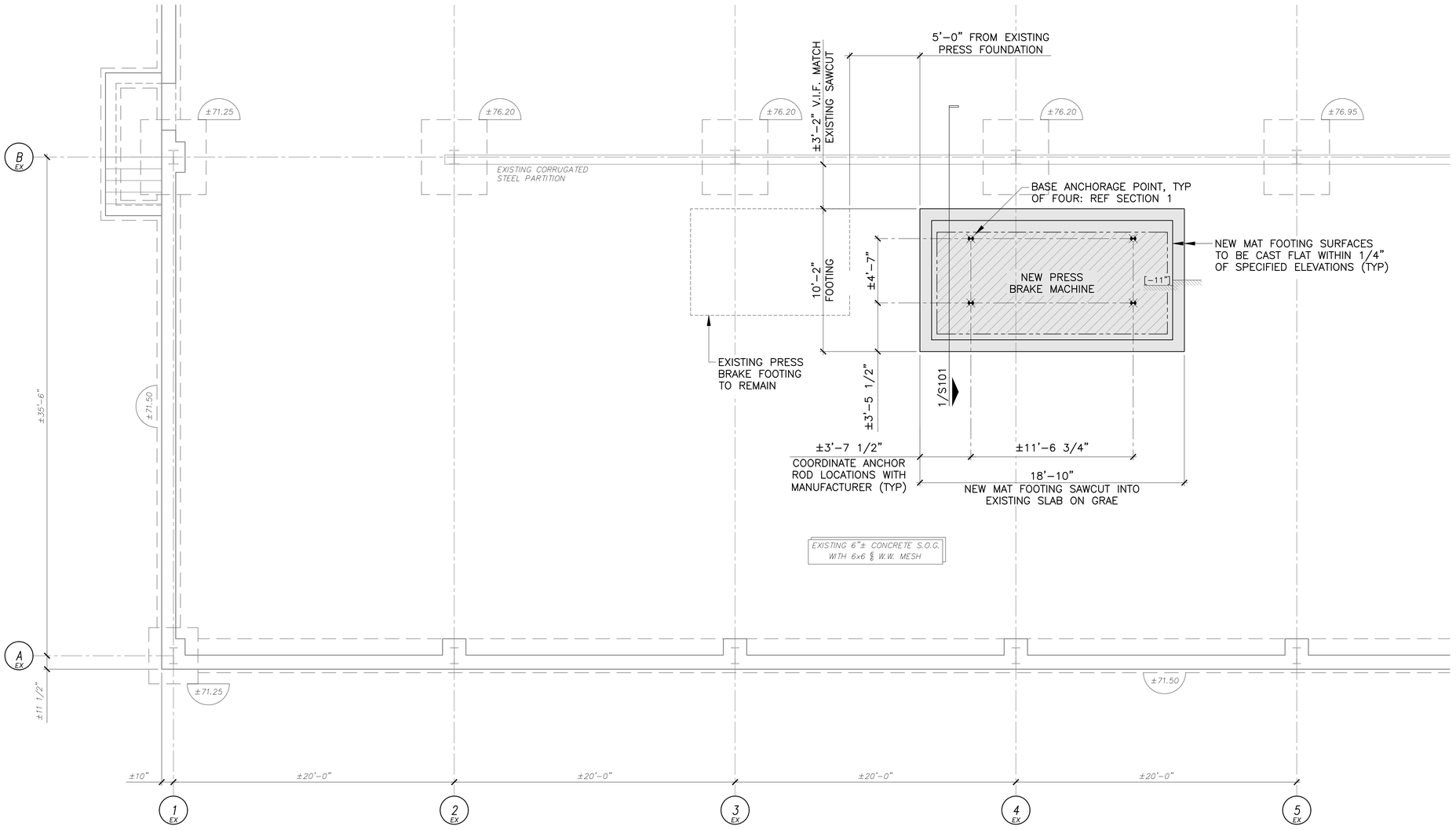
DRAWN BY:	BCH	PROJ NO.:	668941.0000.0000
CHECKED BY:	BMG		
APPROVED BY:	BCH		**FIGURE 3**
DATE:	OCTOBER 2025		

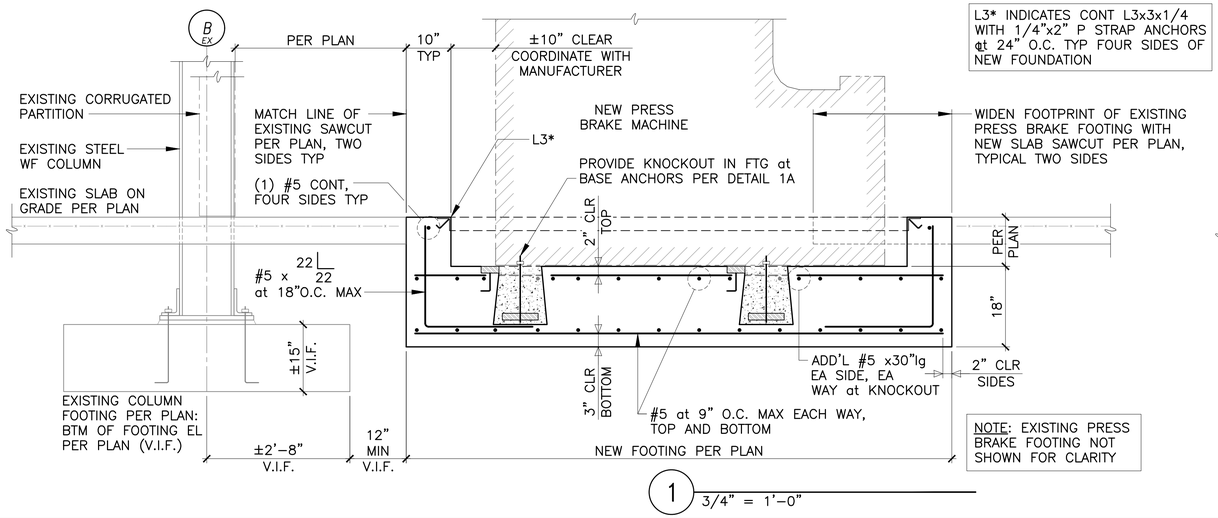
TRC
1090 Union Road
Suite 280
West Seneca, NY 14224
Phone: 716.289.2409
www.trccompanies.com

FILE NO.: NPTbasemap.dwg

Appendix A

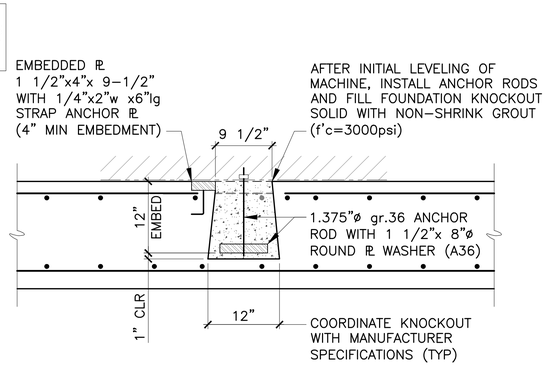
Press Brake Machine Construction Details





1 3/4" = 1'-0"

L3* INDICATES CONT L3x3x1/4 WITH 1/4"x2" P STRAP ANCHORS @t 24" O.C. TYP FOUR SIDES OF NEW FOUNDATION

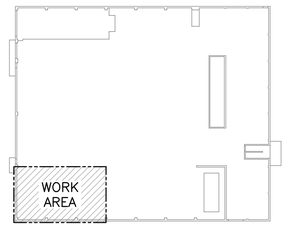


1A TYPICAL BASE ANCHORAGE and FOOTING KNOCKOUT DETAIL
1" = 1'-0"

PARTIAL EXISTING FOUNDATION/FLOOR PLAN

1/4" = 1'-0"

1. TOP OF EXISTING SLAB ON GRADE EL. ±79.45'
2. BOTTOM OF EXISTING FOOTING EL. ± NOTED THUS:



KEY PLAN
NOT TO SCALE

N

tredo ENGINEERS
755 Seneca Street
Suite 202
Buffalo, New York 14210
716.876.7147 ph
NYS Cert of Auth #: 018880

PREPARED FOR

Niagara Power
Transformer
1755 Dale Road
Buffalo, NY 14225

PROJECT NAME
Niagara Transformer Facility
Press Brake Machine Foundation
1747 Dale Road
Cheektowaga, NY 14225

DRAWING NAME
PARTIAL EXISTING FOUNDATION / FLOOR PLAN

COPYRIGHT © 2025 TREDO ENGINEERS
ALL RIGHTS RESERVED. NO PART OF THIS DRAWING MAY BE REPRODUCED OR COPIED IN ANY FORM WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.

REPRODUCTION OF THIS DRAWING FOR USE IN THE PRODUCTION OF SHOP AND/OR FIELD DETAIL DRAWINGS IS EXPRESSLY FORBIDDEN.

UNAUTHORIZED ALTERATION AND/OR DUPLICATION OF THIS DRAWING IS A VIOLATION OF SECTION 7209, PROVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

REVISIONS	
DATE	4/1/2025
JOB No	25-11
CHECKED BY	MJE
DRAWN BY	MJN

STAMP AND SEAL — EXPIRES: 10.31.25

DRAWING No
S101

DOCUMENT STATUS: ☐ PROGRESS NOT FOR CONSTRUCTION ☐ BID SET ☐ PERMIT SET ■ FINAL FOR CONSTRUCTION

DIVISION 1 - GENERAL CONDITIONS

A. ALL WORK SHALL COMPLY WITH THE LATEST ADDITION OF THE BUILDING CODE OF NEW YORK STATE, AISC CODE, ACI BUILDING CODE (ACI-318), AWS CODE, ASTM STANDARDS AND ANY OTHER APPLICABLE CODES, RULES AND REGULATIONS BY AGENCIES HAVING JURISDICTIONS. WHERE CODES OVERLAP, COMPLY WITH THE MORE STRINGENT REQUIREMENTS.

B. THE CONTRACTOR SHALL MAINTAIN INSURANCE AS WILL PROTECT HIM FROM LIABILITY UNDER WORKMAN'S COMPENSATION ACTS AND OTHER EMPLOYEE BENEFITS ACTS IN ACCORDANCE WITH THE LAWS OF NEW YORK STATE, AND FROM LIABILITY FOR DAMAGES BECAUSE OF BODILY INJURY, INCLUDING DEATH AND PROPERTY DAMAGE.

C. CONTRACTOR IS TO REVIEW DRAWINGS AND EXISTING SITE CONDITIONS AND DIMENSIONS FOR SCOPE OF WORK INVOLVED. CONTRACTOR IS TO INCLUDE IN HIS PROPOSAL ALL ITEMS, MATERIALS, ETC...TO ACHIEVE THE DESIGN CONCEPTS SHOWN ON THE DRAWINGS. MINOR CHANGES IN THE WORK, DUE TO EXISTING CONDITIONS, WILL BE ALLOWED IF APPROVED BY THE ARCHITECT/ENGINEER BEFORE PROCEEDING.

D. EXISTING DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE JOB. VERIFICATION OF EXISTING DIMENSIONS AND CONDITIONS SHALL BE DONE PRIOR TO PREPARATION OF SHOP DRAWINGS.

E. CONTRACTOR IS TO INCLUDE IN HIS PROPOSAL ALL ADDITIONAL MATERIALS AND LABOR AS REQUIRED TO WORK AROUND EXISTING CONDITIONS AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED.

F. ALL WORKMANSHIP MUST BE IN THE BEST PRACTICE OF THE TRADE AS DETERMINED BY THE ARCHITECT. ANY WORK NOT MEETING THESE STANDARDS WILL BE REJECTED.

G. THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS APPROVED IN WRITING BY THE ARCHITECT/ENGINEER.

H. CONTRACTOR IS TO DISPOSE OF ALL DEMOLITION MATERIALS AND LEAVE THE WORK IN A READY TO USE CONDITION.

I. CONTRACTOR IS RESPONSIBLE FOR ALL MEANS, METHODS, LABOR PROCEDURES AND SAFETY PRECAUTIONS FOR COMPLETING THE WORK.

J. CONTRACTOR IS RESPONSIBLE FOR ALL WORK DURING CONSTRUCTION UNTIL FINAL APPROVAL BY ARCHITECT, OWNER, AND LOCAL OFFICIALS.

K. DURING DEMOLITION WORK, THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING TO PREVENT DAMAGE TO ANY ADJACENT EXISTING STRUCTURES.

L. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ANY EXISTING UTILITIES ON OR ADJACENT TO PROPERTY.

M. WHERE A SPECIFIC MANUFACTURER'S PRODUCT IS CALLED OUT, ALL MATERIALS AND WORK MUST COMPLY WITH THE MANUFACTURER'S STRICT RECOMMENDATIONS FOR INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN INSTRUCTIONS AND TO THEN FOLLOW THEM.

N. WHERE A NAME BRAND IS NOT CALLED OUT, THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS AND/OR PRODUCT INFORMATION FOR ARCHITECT/ENGINEER REVIEW AND APPROVAL. MINOR ITEMS IN THE WORK ARE NOT SPECIFIED. CONTRACTOR IS TO USE QUALITY AND QUANTITY THAT IS STANDARD TO THE TRADE.

O. ALL OPENINGS THROUGH SLABS, WALLS, AND ROOFS ARE NOT SHOWN. PROVIDE UNIT PRICES FOR ADDITIONAL FRAMING AND REINFORCING.

P. CONSULT THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, SLEEVES, WASHES, DRIPS, REVEALS, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS.

Q. TYPICAL DETAILS APPLY TO ALL DRAWINGS AND SHALL BE USED EXCEPT WHERE OTHERWISE SHOWN OR NOTED.

DIVISION 1.4 - SPECIAL INSPECTIONS AND TESTING

A. PROVIDE SPECIAL INSPECTIONS AND TESTING IN ACCORDANCE WITH CHAPTER 17 OF THE BUILDING CODE OF NEW YORK STATE. THE PROGRAM OF SPECIAL INSPECTIONS AND TESTING IS A QUALITY ASSURANCE PROGRAM INTENDED TO ENSURE THAT THE WORK IS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS SECTION IS INTENDED TO INFORM THE CONTRACTOR OF THE OWNER'S QUALITY ASSURANCE PROGRAM AND EXTENT OF THE CONTRACTOR'S RESPONSIBILITIES. THIS SECTION IS ALSO INTENDED TO NOTIFY THE SPECIAL INSPECTORS, TESTING LABORATORIES, AND OTHER AGENTS OF THE SPECIAL INSPECTORS OF THEIR REQUIREMENTS AND RESPONSIBILITIES.

B. REQUIRED INSPECTIONS AND TESTS ARE INDENTIFIED IN THE SUPPLEMENTAL STATEMENT OF SPECIAL INSPECTIONS. THE SERVICES AND QUANTITIES OF TESTING SPECIFIED ARE APPROXIMATE AND MAY VARY. ACTUAL SERVICES AND QUANTITIES OF TESTING WILL BE DETERMINED BY THE OWNER AND/OR ARCHITECT AND CONSTRUCTION MANAGER DURING THE CONSTRUCTION PERIOD.

C. THE ARCHITECT, ENGINEER AND/OR CONSTRUCTION MANAGER WILL DETERMINE THE LOCATIONS FOR TAKING SAMPLE SPECIMENS FOR TESTING IN ACCORDANCE WITH THE STATEMENT OF SPECIAL INSPECTIONS.

D. SPECIAL INSPECTORS MUST DEMONSTRATE, TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL'S SATISFACTION, EXPERIENCE AND SKILLS TO SATISFACTORILY CONDUCT TESTING INDICATED WITHOUT DELAYING THE PROGRESS OF THE WORK. THE OWNER WILL EMPLOY AND PAY FOR THE SERVICES OF THE SPECIAL INSPECTOR TO PERFORM THE SERVICES SPECIFIED HEREIN; HOWEVER, THE CONTRACTOR SHALL REIMBURSE THE OWNER FOR THE COST OF THOSE SERVICES WHICH, IN THE OPINION OF THE ARCHITECT/ENGINEER (AND CONSTRUCTION MANAGER), ARE REQUIRED DUE TO THE FOLLOWING:

a. FAILURE OF MATERIALS OR WORKMANSHIP TO MEET CONTRACT REQUIREMENTS.

b. MATERIALS OR PRACTICES, NOT COMPLYING WITH THE SPECIFICATIONS WHICH COULD POSSIBLY RESULT IN DEFECTIVE WORK THEREBY RENDERING IT NECESSARY OR ADVISABLE TO PERFORM TESTS TO DETERMINE WHETHER OR NOT WORK IS ACCEPTABLE.

c. CHANGES IN SOURCE, QUALITY OR CHARACTERISTICS OF MATERIALS.

d. SITE CURED CYLINDERS REQUESTED BY THE CONTRACTOR.

E. THE SPECIAL INSPECTOR SHALL RETAIN THE SERVICES OF A FULL TIME REGISTERED PROFESSIONAL ENGINEER WHO SHALL CERTIFY ALL TEST REPORTS. THE ENGINEER SHALL BE RESPONSIBLE FOR THE TRAINING OF THE TESTING TECHNICIANS AND SHALL BE IN RESPONSIBLE CHARGE OF THE FIELD AND LABORATORY TESTING OPERATIONS.

F. SPECIAL INSPECTIONS SHALL BE PERFORMED BY SPECIAL INSPECTORS WHO ARE CERTIFIED AS IDENTIFIED BELOW OR ARE WORKING UNDER THE DIRECTION OF A REGISTERED PROFESSIONAL ENGINEER.

a. TECHNICIANS PERFORMING SAMPLING AND TESTING OF CONCRETE SHALL BE ACI CERTIFIED CONCRETE FIELD TESTING TECHNICIANS - GRADE 1.

b. INSPECTORS PERFORMING INSPECTIONS OF CONCRETE WORK SUCH AS INSPECTIONS OF CONCRETE PLACEMENT, BATCHING, REINFORCING PLACEMENT, CURING AND PROTECTION, SHALL BE ACI CERTIFIED CONCRETE CONSTRUCTION INSPECTORS OR ICBO CERTIFIED REINFORCED CONCRETE SPECIAL INSPECTORS.

c. TECHNICIANS PERFORMING VISUAL INSPECTION OF WELDING SHALL BE AWS CERTIFIED WELDING INSPECTORS OR ICBO CERTIFIED STRUCTURAL STEEL AND WELDING SPECIAL INSPECTORS; TECHNICIANS PERFORMING NON-DESTRUCTIVE TESTING SUCH AS ULTRASONIC TESTING, RADIOGRAPHIC TESTING, MAGNETIC PARTICLE TESTING, OR DYE-PENETRATE TESTING SHALL BE CERTIFIED AS AN ASNT-TC LEVEL II OR LEVEL III TECHNICIAN.

d. TECHNICIANS PERFORMING STANDARD TESTS DESCRIBED BY SPECIFIC ASTM STANDARDS SHALL HAVE TRAINING IN THE PERFORMANCE OF SUCH TESTS AND MUST BE ABLE TO DEMONSTRATE EITHER BY ORAL OR WRITTEN EXAMINATION COMPETENCE FOR THE TEST TO BE CONDUCTED. THEY SHALL BE UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER AND SHALL NOT BE PERMITTED TO INDEPENDENTLY EVALUATE TEST RESULTS.

G. CONTRACTOR'S SHALL COOPERATE WITH LABORATORY PERSONNEL AND PROVIDE ACCESS TO THE WORK AND TO MANUFACTURERS/FABRICATOR'S FACILITIES AS REQUIRED FOR THE PERFORMANCE OF THEIR SERVICES, SHALL RETAIN THE LATEST SET OF CONSTRUCTION DRAWINGS, FIELD SKETCHES, APPROVED SHOP DRAWINGS, AND SPECIFICATION AT THE PROJECT SITE FOR USE BY THE INSPECTORS AND TESTING TECHNICIANS. CONTRACTOR'S SHALL ALSO PROVIDE CASUAL LABOR AND FACILITIES TO PROVIDE ACCESS TO THE WORK TO BE INSPECTED OR TESTED, TO OBTAIN AND HANDLE SAMPLES AT THE SITE, TO FACILITATE INSPECTIONS AND TESTS, TO CONSTRUCT A STORAGE BOX ON THE SITE OF SUFFICIENT SIZE TO STORE CYLINDERS, WHICH WILL AFFORD PROTECTION, REQUIRED BY ASTM C_31.

H. CONTRACTOR'S SHALL PROVIDE THE LABORATORY WITH PRELIMINARY REPRESENTATIVE SAMPLES OF MATERIALS TO BE TESTED, IN REQUESTED QUANTITIES. WHEN THE SOURCE, QUALITY OR CHARACTERISTIC OF AN APPROVED MATERIAL CHANGES OR INDICATES LACK OF COMPLIANCE WITH CONTRACT REQUIREMENTS, CONTRACTOR'S SHALL SUBMIT ADDITIONAL SAMPLES OF MATERIALS TO TESTING LABORATORY.

I. WHEN REQUESTED BY THE ARCHITECT/ENGINEER, OR THE TESTING LABORATORY, THE CONTRACTOR SHALL IMMEDIATELY PROVIDE COPIES OF MILL REPORTS, CUTTING LISTS, MATERIAL BILLS, SHIPPING BILLS, TIME, AND PLACE OF SHIPMENT OF MATERIALS TO SHOP AND FIELD AND ANY RELEVANT DATA ON PREVIOUS TESTING AND INVESTIGATIONS OF MATERIALS.

J. CONTRACTOR'S SHALL REVIEW THE STATEMENT OF SPECIAL INSPECTIONS AND BE RESPONSIBLE FOR COORDINATING AND SCHEDULING INSPECTIONS AND TESTS TO FACILITATE THE TIMELY SEQUENCE OF INSPECTION AND TESTING. THE CONTRACTOR SHALL GIVE ADVANCED NOTIFICATION TO THE TESTING LABORATORY AND THE ARCHITECT/ENGINEER (AND CONSTRUCTION MANAGER) THAT WORK HAS PROGRESSED TO A POINT WHERE INSPECTION AND TESTING MAY PROCEED.

K. ADVANCED NOTIFICATION, SHALL BE 48 HOURS (MIN.) PRIOR TO COMMENCEMENT OF THE FOLLOWING:

a. SITE PREPARATION:
i. EXCAVATION FOR FOUNDATIONS AND SLAB ON GRADE.
ii. PROOF-ROLLING OF SLAB ON GRADE SUBGRADE.

b. SOIL COMPACTION:
i. DELIVERY OF FILL TO THE SITE.
ii. PLACEMENT AND COMPACTION OF FILL OR BACKFILL.

c. CONCRETE:
i. SETTING OF REINFORCING AND FORMWORK.
ii. PLACING CONCRETE.

L. THE SPECIAL INSPECTION PROGRAM DOES NOT, IN ANY WAY, RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO PERFORM WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS OR FROM IMPLEMENTING AN EFFECTIVE QUALITY CONTROL PROGRAM. ALL WORK THAT IS TO BE SUBJECTED TO SPECIAL INSPECTIONS SHALL FIRST BE REVIEWED BY THE CONTRACTOR'S QUALITY CONTROL PERSONNEL.

M. SERVICES OF TESTING LABORATORY RETAINED BY THE OWNER IS FOR VERIFICATION OF CONTRACTOR'S COMPLIANCE AND IF SUCH TESTS OF INSPECTION INDICATES FAILURE TO COMPLY WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BEAR ALL COST ASSOCIATED WITH ADDITIONAL TESTING AND INSPECTION, AFTER THE WORK HAS BEEN CORRECTED, TO VERIFY COMPLIANCE. AREAS WHERE SAMPLES ARE TAKEN FOR PURPOSES OF TESTING SHALL BE PATCHED TO THE SATISFACTION OF THE ARCHITECT.

N. THE SPECIAL INSPECTORS OR TESTING LABORATORIES MAY NOT RELEASE, REVOKE, ALTER, OR ENLARGE ON THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTORS OR TESTING LABORATORIES WILL NOT HAVE CONTROL OVER THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION. THE SPECIAL INSPECTORS OR TESTING LABORATORIES ARE NOT RESPONSIBLE FOR CONSTRUCTION SITE SAFETY. THE SPECIAL INSPECTORS OR TESTING LABORATORIES HAVE NO AUTHORITY TO STOP THE WORK.

DIVISION 1.4 - SPECIAL INSPECTIONS AND TESTING (CONTINUED)

O. THE SPECIAL INSPECTOR SHALL SUBMIT THREE COPIES OF BI-WEEKLY REPORTS OF EACH INSPECTION OR TEST ON SOILS, CONCRETE, MASONRY, AND STRUCTURAL STEEL TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INCLUDE THE FOLLOWING:

a. DATE OF TEST OR INSPECTION.

b. NAME OF INSPECTOR OR TECHNICIAN.

c. LOCATION OF SPECIFIC AREAS TESTED OR INSPECTED.

d. DESCRIPTION OF TEST OR INSPECTION AND RESULTS.

e. APPLICABLE ASTM STANDARD.

f. WEATHER CONDITIONS.

g. SIGNATURE OF SPECIAL INSPECTOR OR TECHNICIAN.

P. SUBMIT INTERIM REPORTS TO THE BUILDING OFFICIAL WHICH INCLUDE ALL INSPECTIONS AND TEST REPORTS RECEIVED THAT WEEK. PROVIDE COPIES TO THE ARCHITECT, AND CONTRACTOR. THE FREQUENCY OF THE INTERIM REPORTS SHALL BE AS REQUIRED BY THE TOWNSHIP.

Q. ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND DURING A SPECIAL INSPECTION SHALL BE IMMEDIATELY REPORTED TO THE CONTRACTOR, IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL NOTIFY THE EOR AND BUILDING OFFICIAL. REPORTS SHALL DOCUMENT ALL DISCREPANCIES IDENTIFIED AND THE CORRECTIVE ACTION TAKEN.

R. THE TESTING LABORATORY SHALL IMMEDIATELY NOTIFY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE BY TELEPHONE OR FAX OF ANY TEST RESULTS WHICH FAIL TO COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

S. PROVIDE A STATEMENT TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AT THE COMPLETION OF THE WORK REQUIRING SPECIAL INSPECTIONS FROM EACH INSPECTION AGENCY AND TESTING LABORATORY THAT ALL WORK WAS COMPLETED IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND THAT ALL APPROPRIATE INSPECTIONS AND TESTS WERE PERFORMED.

a. COMPLETE FINAL REPORT OF SPECIAL INSPECTIONS BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND SUBMIT TO THE EOR AND BUILDING OFFICIAL PRIOR TO THE INSURANCE OF A CERTIFICATE OF USE AND OCCUPANCY.

b. USE C.A.S.E. FORM 102 - 2001 FOR THE FINAL REPORT OF SPECIAL INSPECTIONS.

c. THE FINAL REPORT OF SPECIAL INSPECTIONS WILL CERTIFY THAT ALL REQUIRED INSPECTIONS HAVE BEEN PERFORMED AND WILL ITEMIZE ANY DISCREPANCIES THAT WERE NOT CORRECTED OR RESOLVED.

T. THE SPECIAL INSPECTORS AND TESTING LABORATORIES SHALL SUBMIT TO THE EOR AND BUILDING OFFICIAL FOR REVIEW A COPY OF THEIR QUALIFICATIONS WHICH SHALL INCLUDE THE NAMES AND QUALIFICATIONS OF EACH OF THE INDIVIDUAL INSPECTORS AND TECHNICIANS WHO WILL BE PERFORMING INSPECTIONS OR TESTS.

U. THE SPECIAL INSPECTORS AND TESTING LABORATORIES SHALL DISCLOSE ANY PAST OR PRESENT BUSINESS RELATIONSHIP OR POTENTIAL CONFLICT OF INTEREST WITH THE CONTRACTOR OR ANY OF THE SUBCONTRACTORS WHOSE WORK WILL BE INSPECTED OR TESTED.

V. THE FREQUENCY OF INSPECTIONS SHALL CONFORM TO THE PROGRAM OF SPECIAL INSPECTIONS. AND SHALL BE COMPLY WITH THE FOLLOWINGDEFINITIONS:

a. PERIODIC - IN GENERAL, NO MORE THAN A HALF DAY SITE VISIT, NOT LESS THAN 48 HOURS APART, UNLESS OTHERWISE DIRECTED BY OWNER, ARCHITECT, OR ENGINEER, OR SPECIFIED BELOW.

b. CONTINUOUS - IN GENERAL, THE SPECIAL INSPECTOR OR AGENT SHOULD BE ON SITE BEFORE, DURING, AND AFTER OPERATION REQUIRING INSPECTION.

W. TESTING AND INSPECTIONS FOR EXISTING SUBGRADES SHALL INCLUDE LABORATORY TESTING AND FIELD VERIFICATION AS FOLLOWS:

a. LABORATORY TESTS
i. FOR EXISTING SITE MATERIAL
1. COHESIVE SOILS AND SEMI_COHESIVE SOILS: PROVIDE ONE OPTIMUM MOISTURE_MAXIMUM DENSITY CURVE FOR EACH TYPE OF SUBGRADE SOIL ENCOUNTERED IN ACCORDANCE WITH ASTM D_1557.
2. NON-COHESIVE SOILS: PROVIDE MAXIMUM AND MINIMUM INDEX DENSITIES AND RELATIVE DENSITIES FOR EACH TYPE OF SUBGRADE SOIL ENCOUNTERED IN ACCORDANCE WITH ASTM D_4254.

ii. FOR BORROW MATERIALS: ANALYZE EACH TYPE OF BORROW MATERIALS BEFORE ACCEPTANCE AND DELIVERY TO THE SITE. ANY CHANGE IN THE SOURCE OR QUALITY OF THE MATERIAL WILL REQUIRE A NEW SERIES OF TESTS TO DETERMINE ACCEPTABILITY.
1. PARTICLE SIZE ANALYSIS OF SOILS ASTM D_422, ASTM D_421, ASTM D_420, ASTM C_117 RECOMMENDED PRACTICE.
2. PLASTICITY INDEX DETERMINATION ASTM D_4318.
3. MOISTURE_DENSITY CURVE DETERMINATION ASTM D_1557 OR RELATIVE DENSITY (ASTM D_4253 OR ASTM D_4254) AS SPECIFIED ABOVE.

b. FIELD TESTS:
i. THE OWNER'S SOILS TESTING AGENCY REPRESENTATIVE SHALL BE PRESENT DURING DELIVERY AND COMPACTION OF FILL MATERIALS. OBSERVE PROOFROLLING OPERATIONS, IDENTIFY LOCATION AND EXTENT OF SOFT, LOOSE, OR YIELDED SUBGRADE MATERIAL THAT MUST BE REMOVED OR UNDERCUT, AND INSPECT UNDERCUT SUBGRADE.
ii. ESTABLISH SUITABLE BEARING GRADES FOR FOUNDATIONS AND STRUCTURAL FILL BELOW SLABS ON GRADE.
iii. VERIFY NATURAL SOIL AND STRUCTURAL FILL SUBGRADES FOR ALL SLABS ON GRADE.
iv. IN_PLACE DENSITY TESTS: TEST IN ACCORDANCE WITH ASTM D_1556 (SAND CONE METHOD) OR ASTM D_2922 (NUCLEAR METHOD) ON COMPACTED NATURAL SOILS OR STRUCTURAL FILL MATERIALS AS FOLLOWS:
1. ONE TEST FOR EACH 2000 SQ. FT. OF SLAB ON GRADE AND PAVEMENT SUBGRADE PER 12" LIFT.

X. CONCRETE SAMPLES SHALL BE TAKEN IN ACCORDANCE WITH ASTM C_172 "SAMPLING FRESH CONCRETE" AND COMPRESSION TESTS TO VERIFY THAT DESIGN MIX COMPLIES WITH CONTRACT DOCUMENTS SHALL BE COMPLETED. TEST SLUMP AND AIR CONTENT OF CONCRETE AT SAME FREQUENCY AND FROM SAME TRUCKLOAD AS COMPRESSION TESTS AND MORE OFTEN WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE.

a. SLUMP TEST SHALL BE MADE IN ACCORDANCE WITH ASTM C_143 "METHODS FOR SLUMP OF PORTLAND CEMENT CONCRETE".

b. DETERMINE AIR CONTENT BY ASTM C_231 "METHOD OF TEST FOR AIR CONTENT OF FRESHLY MIXED CONCRETE BY THE VOLUMETRIC METHOD".

c. LABEL EACH COMPRESSION TEST CYLINDER IDENTIFYING THE TRUCKLOAD OF CONCRETE FROM WHICH SAMPLE WAS TAKEN AND THE EXACT LOCATION IN CONSTRUCTION WHERE DEPOSITED.

d. TEST SPECIMENS IN ACCORDANCE WITH ASTM C_39 "METHODS OF TESTS FOR COMPRESSIVE STRENGTH OF MOLDED CONCRETE CYLINDERS". INCLUDE WEIGHT TEST.

e. ONE COMPRESSION TEST, AS USED HEREIN SHALL CONSIST OF 3 TEST CYLINDERS MADE FROM COMPOSITE SAMPLES SECURED FROM A SINGLE TRUCKLOAD OF CONCRETE. ONE COMPRESSION TEST WILL BE REQUIRED FOR EACH OF THE FOLLOWING CONDITIONS:
i. EACH 50 CU. YD. OF CONCRETE OR FRACTION THEREOF.
ii. EACH CLASS OF CONCRETE PLACED IN ONE DAY.

f. BREAK 1 TEST CYLINDER AT 7 DAYS AND THE REMAINING 2 AT 28 DAYS. IF DESIRED BY THE ARCHITECT, ENGINEER, OR CONSTRUCTION MANAGER A FOURTH TEST CYLINDER CAN BE MADE AND HELD FOR 56 DAYS.

Y. INSPECT FORMWORK AND REINFORCING PRIOR TO PLACING OF CONCRETE.

Z. INSPECT BATCHING, MIXING AND DELIVERY OPERATIONS FOR COMPLIANCES WITH THE SPECIFICATIONS.

AA. STRUCTURAL STEEL FIELD TESTING AND INSPECTION:

a. VISUAL INSPECTION:
i. INSPECT ANCHOR BOLT INSTALLATION AND TIGHTENING.

ABBREVIATION	AGENT
SER	STRUCTURAL ENGINEER OF RECORD LISTED ABOVE.
AOR	ARCHITECT OF RECORD LISTED ABOVE.
SI	SPECIAL INSPECTOR
OIAF	OWNER'S INSPECTION AGENCY - FIELD
OIAP	OWNER'S INSPECTION AGENCY - PLANT
GE	GEOTECHNICAL ENGINEER
FQP	FABRICATOR'S QUALITY CONTROL PROGRAM
CQP	CONTRACTOR'S QUALITY CONTROL PROGRAM
NR	NOT REQUIRED
NA	NOT APPLICABLE

DIVISION 2 - SITE WORK/EARTHWORK/FOUNDATIONS

A. A TESTING AGENCY WILL BE EMPLOYED BY THE OWNER TO VERIFY ACCEPTABILITY OF WORKMANSHIP AND MATERIALS.

B. MAINTAIN SIDES OF EXCAVATIONS IN SAFE CONDITION UNTIL COMPLETION OF WORK.

C. ALL SUBGRADE SUPPORTED FOOTINGS SHALL BEAR ON LEVEL, UNDISTURBED NATURAL SUBGRADE MATERIAL HAVING A MINIMUM NET ALLOWABLE BEARING CAPACITY OF 1.50 KIPS PER SQUARE FOOT (1 KIP = 1000 LBS.), PER BCNYS SECTION 1806.2 AND AS TESTED AND INSPECTED BY THE OWNER'S SOIL TESTING AGENCY.

D. PREVENT SURFACE WATER AND SUBSURFACE GROUND WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. NO FOOTINGS OR SLABS SHALL BE PLACED IN WATER OR ON FROZEN GROUND.

E. ALL FOOTING EXCAVATIONS ARE TO BE FINISHED BY HAND.

F. ALL FINISHED EXCAVATIONS AND BEARING GRADES SHALL BE INSPECTED AND APPROVED BY THE OWNER'S SOIL TESTING AGENCY BEFORE ANY CONCRETE IS PLACED.

G. SHOULD ROCK BE ENCOUNTERED DURING FOUNDATION EXCAVATION, NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY. DO NOT PROCEED WITH ROCK EXCAVATION UNTIL GIVEN AUTHORIZATION TO DO SO. SUCH EXCAVATION WILL BE PAID FOR ON THE BASIS OF UNIT PRICES AS GIVEN IN THE BID FORM.

H. UNDERSIDE OF NEW FOOTINGS ADJACENT TO EXISTING FOOTINGS SHALL BE SET LEVEL AT AN ELEVATION FOLLOWING A MINIMUM SLOPE/STEP OF 2 HORIZONTAL TO ONE VERTICAL AWAY FROM BOTTOM OF THE EXISTING FOOTINGS. REFER TO DETAILS FOR ADDITIONAL INFORMATION.

DIVISION 3 - CONCRETE

A. ALL CONCRETE SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI. PORTLAND CEMENT SHALL BE ASTM C150, TYPE 1.

B. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A NOMINAL AIR DRY DENSITY OF 145 PCF.

C. CONCRETE ACCEPTANCE SHALL BE ON THE BASIS OF "30 CONSECUTIVE TEST" OR "TRIAL MIXTURES" AS DESCRIBED IN ACI 318, SECTION 5.3. PROVIDE TRIAL MIXTURES FOR THREE DIFFERENT WATER-CEMENT RATIOS INDICATING 7-DAY AND 28-DAY COMPRESSIVE STRENGTH (Fc); 1200 PSI GREATER THAN REQUIRED SHALL BE ACCEPTED.

D. A MINIMUM OF ONE SET OF THREE STANDARD TEST CYLINDERS FOR EACH DAY'S PLACEMENT SHALL BE TAKEN, AND THE OWNER'S TESTING AGENCY WILL PERFORM COMPRESSION TESTS ON ONE CYLINDER AT 7 DAYS AND 28 DAYS, LEAVING ONE CYLINDER IN RESERVE.

E. ADD POZZOLITH OR WRDA WATER REDUCING ADMIXTURE TO MIX PER MANUFACTURER'S RECOMMENDATIONS.

F. PROVIDE A MAXIMUM ENTRAPPED AIR CONTENT BY VOLUME OF:

3.5%, +1%, -2% CLASS A CONCRETE, FOR INTERIOR FLOOR SLABS.

G. FINE AGGREGATE SHALL CONSIST OF WASHED NATURAL SAND CONFORMING TO ASTM C-33 AND COARSE AGGREGATE SHALL CONSIST OF WELL-GRADED CRUSHED STONE OR WASHED GRAVEL CONFORMING TO ASTM C-33, 3/4" SIZE.

H. WATER CONTENT SHALL NOT EXCEED 5.5 GALLONS/BAG OF CEMENT FOR CLASS A CONCRETE. WATER SHALL BE CLEAN AND FREE FROM DELETERIOUS AMOUNTS OF ACIDS, ALKALIS OR ORGANIC MATERIALS.

I. SLUMP SHALL BE 3" +/-1".

J. ALL CONCRETE SHALL BE TRUCK MIXED.

K. CLEARANCE OF MAIN REINFORCEMENT FROM ADJACENT SURFACES SHALL BE AS DETAILED ON THE DRAWINGS AND NOT LESS THAN DIAMETER OF BARS.

NOTE: MAXIMUM DEVIATION FROM COVER REQUIREMENTS SHALL BE +1/2" FOR SECTIONS OVER TEN (10) INCHES THICK.

L. ALL PLACEMENT OF CONCRETE AND REINFORCEMENT:

ACCORDING TO ACI 318 (INCLUDING ACI RECOMMENDATIONS FOR HOT AND COLD WEATHER CONDITIONS); AND CRSI RECOMMENDED PRACTICES FOR 'PLACING REINFORCING BARS'.

M. CURING COMPOUND:

BUILDING FLOORS: MASTER BUILDERS CO. "MASTERSEAL".

N. FLOOR FINISH: HARD STEEL TROWEL UNLESS OTHERWISE INDICATED ON DRAWINGS.

O. EXPANSION JOINT FILLERS: SEE DETAILS AND NOTES ON DRAWINGS.

P. WHERE EXPOSED ABOVE GRADE, CONCRETE SHALL HAVE A SMOOTH FINISH. GRIND OFF FINS, JOINT MARKS, BULGES, AND OTHER PROMINENT MARKINGS. FILL AND GRIND OFF HONEYCOMBED OR DEPRESSED AREAS AND LEAVE SMOOTH AND WASHED CLEAN.

Q. REINFORCING BARS SHALL BE NEW ASTM A615, GRADE 60.

R. BAR SUPPORTS SHALL BE GALVANIZED OR STAINLESS STEEL. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL BE GALVANIZED AND PLASTIC TIPPED.

S. WHERE CONTINUOUS REINFORCING IS CALLED FOR, IT SHALL BE RUN CONTINUOUSLY AROUND CORNERS, LAPPED AT NECESSARY SPLICES AND HOOKED AT DISCONTINUOUS ENDS.

T. SUBMIT SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION OF REBAR.

U. ALL REINFORCING SHALL BE INSPECTED BY THE OWNER'S TESTING AGENCY BEFORE CONCRETE IS PLACED.

V. NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.

SLAB REINFORCING LAP SPLICE LENGTHS

LAP SPLICE LENGTHS FOR REINFORCING IN 4000 PSI CONCRETE ARE AS FOLLOWS:

	TENSION SPLICE		
BAR SIZE	TOP	OTHER	DEVELOPMENT LENGTH
3	21	15	13
4	29	20	17
5	36	26	21
6	43	31	25
7	54	39	32
8	71	51	42
9	90	65	53
10	115	82	68
11	163	101	83

NOTES:

1. LAPPED SPLICE LENGTHS BASED ON ASTM A-615, GRADE 60, REBAR.
2. REINFORCING BARS ARE CLASSED AS TOP BARS WHEN MORE THAN 12" OF CONCRETE IS CAST BENEATH RESPECTIVE REINFORCING BAR.
3. COMPRESSION SPLICES PERMISSIBLE ONLY WHERE SPECIFICALLY NOTED ON THE DRAWINGS, DETAILS OR SCHEDULES.
4. TENSION SPLICES SHALL BE USED IN ALL SLABS UNLESS OTHERWISE NOTED.
5. WHEN LAPPING LARGER BAR WITH SMALLER BAR, LAP LENGTH FOR SMALLER BAR SHALL GOVERN RESPECTIVE SPLICE.
6. SPLICE CONTINUOUS TOP REINFORCING BARS AT CENTER OF CLEAR SPAN WITH COMPRESSION SPLICES.
7. SPLICE CONTINUOUS BOTTOM REINFORCING BARS AT CENTER OF SUPPORTING ELEMENT WITH COMPRESSION SPLICES.
8. ALL SPLICE LENGTHS NOTED IN INCHES.

DIVISION 5 - POST-INSTALLED ANCHORS

A. EXCEPT WHERE INDICATED ON THE DRAWINGS, POST INSTALLED ANCHORS SHALL CONSIST OF THE FOLOWING ANCHOR TYPES AND INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE ICC-ES REPORT AND MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS:

APPLICATION	ANCHORING SYSTEM	ICC-ES REPORT
ANCHORAGE TO CONCRETE	HILTI KWIK-X DUAL ACTION SYSTEM	ESR-5065
	HILTI HY 200 V3 ADHESIVE	ESR-4878
	HILTI KWIK HUS EZ	ESR-3027
REBAR DOWELING	HILTI HY 200 V3 WITH SAFESET INSTALLATION	ESR-3187

BASIS OF DESIGN INCLUDES THE FOLLOWING DESIGN PARAMETERS:
(1) CRACKED CONCRETE
(2) WATER-SATURATED CONCRETE
(3) BASE MATERIAL TEMPERATURE OF 23-104 DEGREES FAHRENHEIT
(4) ALLOWABLE DRILLING METHOD: HAMMER-DRILL HOLLOW DRILL BIT SYSTEM
(5) CURRENT ICC-ES REPORT WITH APPROVAL FOR DEVELOPMENT OF BAR USING ACI PROVISIONS FOR EMBEDMENT DEPTHS GREATER THAN 20 BAR DIAMETERS

B. ACI 318 REQUIRES ADHESIVE ANCHORS TO BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT THE TIME OF ANCHOR INSTALLATION.

C. FOR ADHESIVE ANCHORS INSTALLED IN CONCRETE AGED LESS THAN 21 DAYS, CONTACT EN

Appendix B

Change-of-Use Form

NEW YORK STATE | Department of Environmental Conservation

60-Day Advance Notification of Site Change of Use

Physical Alteration, Transfer of Certificate of Completion, and/or Ownership Required by 6NYCRR Part 375-1.11(d) and 375-1.9(f)

SUBMITTAL INSTRUCTIONS:

Please submit via Site Control Dropbox as described below, OR, if file size permits, by email to DERSiteControl@dec.ny.gov. Print to pdf before submitting.

You may submit your document(s) via ground mail at the address below however please – DO NOT submit both electronic and ground mail.

a.) VIA SITE CONTROL DROPBOX:

Request an Invitation

In the "Title" field, please include the following: "Change of Use – Site Name, Site # _____.

After uploading files, an automated email will be sent to the submitter's email address with a link to verify the status of the submission. Please do not send a separate email to confirm receipt.

Packages submitted through third-party file transfer services will not be accepted.

b.) VIA GROUND MAIL:

Save the COU form w/attached file(s) and cover letter (optional) to an external storage device (e.g., thumb drive, flash drive). Do NOT include any paper.

Mail the external storage device to the following address:
Chief, Site Control Section
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233-7020

Section I: Property Information	
Site Name: Niagara Power Transformer Corp.	DEC Site # 915146
Site Address: 1755 Dale Road, Cheektowaga, NY 14225	

Section II: Contact Information Person Submitting Notification	
Name: Bryan Hann (TRC) - consultant to Niagara Transformer	
Address1: 1090 Union Road, Suite 280	
Address 2: West Seneca, NY	
Phone: 716.870.1165	E-mail: bhann@trccompanies.com

Section III: Type of Change and Date
☐ Change of Ownership
☐ Change of Remedial Parties
☐ Transfer of Certificate of Completion
☑ Other (e.g., any physical alteration or other change of use) New Press Brake Installation
Proposed Date of Change (mm/dd/yyyy) September 2025

Section IV: Description of Proposed Change (Required)

Please provide a brief narrative of the proposed changes(s) indicated above. Attach maps, drawings, and/or parcel information as needed. If "other" the description must explain and advise the DEC how such change may or may not affect the site's proposed, ongoing, or completed remedial program (attach additional sheets if needed).

Work activities will include saw cutting the concrete floor of the existing manufacturing building (at a location adjacent to an existing press brake) to facilitate installation of a mat footing for a new Press Brake machine. The existing concrete floor is anticipated to be 0.5 foot thick, and the dimensions of the saw cut area will be approximately ±10-feet wide by ±18-feet long. Concrete will then be broken up and removed to expose the existing subbase gravel and/or subsoil. Following concrete removal, the open pit will be excavated an additional ±18-inches, for a total depth of approximately ±30-inches below floor grade to facilitate installation of the mat footing for the new press brake. Soil, subbase gravels, and broken concrete will be assumed to be PCB-contaminated and carefully removed and placed by NPT's contractor into a lined (and covered) roll-off container. Once the total depth of the excavation is confirmed, approximately ±6-inches of clean 2-inch crusher run gravel will be placed in the excavation and compacted, followed by installation of new mat footing rebar, concrete, and base anchors, then installation of the new press brake machine. The subsoils beneath the manufacturing building have not been previously remediated. The final cover will be slightly modified but will adhere to NYSDEC DER-10 requirements for the Site (i.e., industrial).

Section V: Certification Statement

Where the change results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative: see § 375-1.11(d)(4)(i):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site's remedial program as well as a copy of all approved remedial work plans and reports.

Name: _____ _____

(Signature) (Date)

_____

(Print Name)

Address1:_____

Address2:_____

Phone:_____ Email :_____

Section VI: Contact Information for New Owner, Remedial Party, or CoC Holder

If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environment Easement, Deed Restriction, or Site Management Plan subject to periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☐ Prospective Owner ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name:_____

Address:1_____

Address2:_____

Phone:_____ Email:_____

Cert. Party Name:_____

Address:1_____

Address2:_____

Phone:_____ Email:_____

Section VII: Agreement to Notify DEC After Transfer

If Section VI applies, i.e., all or part of the site will be sold, in accordance with § 375-1.11(d)(4)(ii) 30 days after the transfer a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the CoC holder for the site, the CoC should be transferred to the new owner using DEC's approved "Notice of Transfer of COC" forms found at Initial Notice And Transfer Of Certificate Of Completion - NYSDEC. This form has its own filing requirements at §375-1.9(f).

Signing below indicates that theses notices will be provided to the DEC within the specified timeframes as follows:

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. The name and contact information for the new owner(s) per §375-1.11(d)(4)(ii)
2. The name and contact information for any owner representative; and
3. A Notice of Transfer using the DEC form Initial Notice And Transfer Of Certificate Of Completion - NYSDEC.

Name: _____ _____

(Signature) (Date)

_____

(Print Name)

Address1:_____

Address2:_____

Phone:_____Email:_____

Appendix C

Import Request Form

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e) and 6NYCRR Part 360.13. Use of this form is not a substitute for reading the applicable regulations and Technical Guidance document.

SECTION 1 – SITE BACKGROUND

Site Name: Niagara Power Transformer, 1747 Dale Road SSF Site

Site Number: 915146

The allowable site use is: Commercial or Industrial Use

Have Ecological Resources been identified? no

Is this soil originating from the site? no

How many cubic yards of soil will be imported/reused? 0-50

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? yes

Does it contain less than 10%, by weight, material that passes a size 100 sieve? yes

Is this virgin material from a permitted mine or quarry? yes

Is this material recycled concrete or brick from a DEC registered processing facility? no

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

No samples required

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

N/A

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

New Enterprises Stone and Lime Co., Inc.

Name and address of fill source:

500 Como Park Boulevard, Buffalo NY 14227

Location where fill was obtained:

Wehrle Drive Quarry

Identification of any state or local approvals as a fill source:

NESL Wehrle #5-3R

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

see attached sieve analysis provided by New Enterprises Stone and Lime Co., Inc.

The information provided on this form is accurate and complete.



Signature

09/08/2025

Date

Bryan C. Hann

Print Name

TRC

Firm

NEW ENTERPRISE STONE & LIME CO., INC.
500 Como Park Boulevard, Buffalo NY 14227 **Phone**: 716-826-7310 **Fax**: 716-826-1342

September 2, 2025

Brawdy Construction

9795 County Rd.

Clarence, NY 14032

Dear Sir:

Please be advised that the 2" crusher run from our Wehrle Dr. Quarry is mined from naturally occurring rock formations. There is no recycled or waste material and no fillers or additives of any kind incorporated into its manufacturing process. These materials were extracted, crushed and screened from our Clarence, NY facility. I have enclosed a gradation of this material showing the #100 sieve < than 10%.

Respectfully Submitted,

New Enterprise Stone and Lime Co.

Paul Juda, QC

Paul Juda, QC Manager

CME Associates, Inc.
2727 Broadway St #2
Buffalo, NY 14227

Material Test Report

Report ID: MAT:04-25-2621-01
Issue No: 1
This issue replaces all previous issues of this report

Client: New Enterprise Stone & Lime Co., Inc **CC:** Buffalo Admin, Paul Juda

Project: 2500154 - 2025 Materials Testing

Location: Williamsville, NY

This report and the results contained herein are the exclusive property of CME Associates, Inc. and shall only be reproduced in full when written consent is provided by CME Associates, Inc. The results in this report relate only to the items inspected or tested.

Submitted By: Charle Froment, P.E., PE, Project Manager
Date of Issue: 6/2/2025

Sample Details

Sample ID	04-25-2621-01
Date Sampled	5/29/2025
Source	NESL Wehrle #5-3R
Material	2" Minus R.O.C. Limestone
Location	Wehrle Drive Stockpile 5-3R

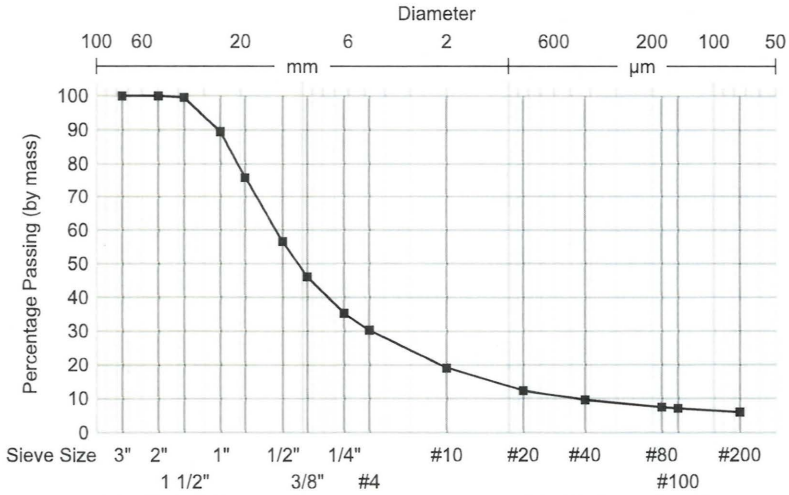
Other Test Results

Description	Method	Result	Limits
Cu	ASTM D2487	28.51	
Cc		3.42	
Procedure	ASTM C117	B	

Particle Size Distribution

ASTM C136

Drying By: None
Date Tested: 5/31/2025
Tested By: Austin Glasier



COBBLES	GRAVEL (70%)		SAND (24%)			SILT/CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	
0%	24.2%	45.6%	11.2%	9.5%	3.6%	6%

Sieve Size	% Passing	Limits
3in	100	
2in	100	
1½in	100	
1in	89	
¾in	76	
½in	56	
3/8in	46	
¼in	35	
No.4	30	
No.10	19	
No.20	12	
No.40	10	
No.80	7	
No.100	7	
No.200	6.0	

Comments

N/A

© 2000-2025 QESTLab by SpectraQEST.com

Appendix D

Site-Specific
Health & Safety Plan (HASP)

Health & Safety Plan (HASP) for Environmental Services

Niagara Power Transformer Site

NYSDEC SSF Site No. 915146
1747 Dale Road
Buffalo, New York

Prepared For:
Niagara Power Transformer (NPT)
1755 Dale Road
Cheektowaga, New York 14225

Prepared By:
TRC Engineers, Inc.
1090 Union Road, Suite 280
West Seneca, NY 14224

October 2025



TABLE OF CONTENTS

1.0 INTRODUCTION 1
- **1.1 Site Location, Description, & Background 1**
- **1.2 Summary of Site Investigation Results 2**
- **1.3 Summary of Remedial Action 2**
- **1.4 Remaining Contamination 5**
- **1.5 Institutional & Engineering Controls (IC/ECs) 6**
  - *1.5.1 Engineering Controls (ECs) 6*
  - *1.5.2 Institutional Controls (ICs) 6*
- **1.6 Constituents of Primary Concern (COPCs) 7**
- **1.7 Anticipated Environmental Activities 7**
  - *1.7.1 SMP Field Activities 8*
  - *1.7.2 Non-SMP Field Activities 9*

2.0 ORGANIZATIONAL STRUCTURE, ROLES, & RESPONSIBILITIES 11
- **2.1 ECR Safety Manager 11**
- **2.2 Project Manager 11**
- **2.3 Site Safety and Health Officer 11**
- **2.4 Assistant Site Safety and Health Officer (Assistant SSHO) 12**
- **2.5 Site Workers 12**
- **2.6 Other Site Personnel 12**

3.0 HAZARD EVALUATION 13
- **3.1 Chemical Hazards 13**
- **3.2 Physical Hazards 14**

4.0 TRAINING 16
- **4.1 Site Workers 16**
  - *4.1.1 Initial and Refresher Training 16*
  - *4.1.2 Site Training 17*
- **4.2 Supervisor Training 18**
- **4.3 Emergency Response Training 18**
- **4.4 Site Visitors 18**

5.0 MEDICAL SURVEILLANCE 19

6.0 SAFE WORK PRACTICES 20
- **6.1 General Safety Rules 20**
- **6.2 Contractor Safety Rules 21**
- **6.3 Incident Reporting 21**

7.0 PERSONAL PROTECTIVE EQUIPMENT (PPE) 23
- **7.1 Equipment Selection 23**
- **7.2 Protection Ensembles 23**
  - *7.2.1 Level A/B Protection Ensemble 23*
  - *7.2.2 Level C Protection Ensemble 24*
  - *7.2.3 Level D Protection Ensemble 24*
  - *7.2.4 Recommended Level of Protection for Site Tasks 25*

8.0 EXPOSURE MONITORING 26
- **8.1 On-Site Work Zone 26**
  - *8.1.1 Monitoring 26*
  - *8.1.2 Action Levels 27*
- **8.2 Community Air Monitoring 28**

8.2.1 Monitoring 28
8.2.2 Action Levels 29

9.0 SPILL RELEASE / RESPONSE 30
9.1 Potential Spills and Available Controls 30
9.2 Initial Spill Notification & Evaluation 31
9.3 Spill Response 31
9.4 Post-Spill Evaluation 32

10.0 HEAT / COLD STRESS MONITORING 33
10.1 Heat Stress Monitoring 33
10.1.1 Heat-Related Illness & Symptoms 33
10.1.2 Mitigation 34
10.2 Cold Stress Monitoring 34
10.2.1 Cold-Related Illness & Symptoms 34
10.2.2 Mitigation 35

11.0 WORK ZONES & SITE CONTROL 36

12.0 DECONTAMINATION 37
12.1 Decontamination for TRC Employees 37
12.2 Decontamination for Medical Emergencies 37
12.3 Decontamination of Field Equipment 38

13.0 CONFINED SPACE ENTRY 39

14.0 FIRE PREVENTION & PROTECTION 40
14.1 Equipment & Requirements 40
14.2 Flammable & Combustible Substances 40
14.3 Hot Work 40

15.0 EMERGENCY RESPONSE PLAN (ERP) 41
15.1 Evacuation Protocol 41
15.2 First Aid & CPR 41
15.3 Emergency Medical Assistance 41
15.4 Emergency Procedures 41
15.5 Non-Emergency Medical Assistance 42

TABLES

Table 1	Airborne Toxicity Data for Constituents of Potential Concern
Table 2	Potential Routes of Exposure to Constituents of Potential Concern
Table 3	Required Levels of Protection for Assigned Tasks

FIGURES

Figure 1	Site Location & Vicinity Map
Figure 2	Site Map

APPENDICES

Appendix A	Emergency Response Plan
Appendix B	TRC Incident Reporting Procedure & Forms
Appendix C	NYSDOH Generic Community Air Monitoring Plan
Appendix D	Hot Work Permit Form

1.0 Introduction

In accordance with OSHA requirements contained in 29 CFR 1910.120, this Health and Safety Plan (HASP) describes the specific health and safety practices and procedures to be employed by TRC Engineers, Inc. (TRC) personnel during various environmental activities to be performed at Niagara Power Transformer's (NPTs) 1747 Dale Road NY State Superfund (SSF) Program Site (915146), located in Cheektowaga, Erie County, New York (herein referred to as the "Site", "SSF Site", or "1747 Dale Road SSF Site") (see **Figures 1 and 2**). This HASP presents procedures for TRC employees who will be involved with various environmental field activities; it does not cover the activities of other Contractors, Subcontractors, or other individuals on the 1747 Dale Road SSF Site. These firms (or agents), when utilized or on-site, will be required to develop and enforce their own HASPs as discussed in Section 2.0. As such, TRC accepts no responsibility for the health and safety of any Contractor, Subcontractor, or other personnel.

This HASP presents information on known health and safety hazards using available historical information related to the 1747 Dale Road SSF Site, and identifies the equipment, materials, and procedures that will be used to eliminate or control these hazards. As necessary, environmental monitoring will be performed during field activities to provide real-time data for on-going assessment of potential hazards.

1.1 Site Location, Description, & Background

The NPT 1747 Dale Road SSF Site is listed in the New York State Registry of Inactive Hazardous Waste Disposal Sites as Site No. 915146. The 3.6-acre Site is in an industrial area in the Town of Cheektowaga, County of Erie, New York and is identified as SLB #102.03-3-5. There are three contiguous parcels owned by NPT: 1747 Dale Road SSF Site (915146), 1755 Dale Road Brownfield Cleanup Program (BCP) Site, and 0 Dale Road (currently a stormwater retention basin). The 1747 Dale Road SSF Site is bounded by Dale Road to the north, CSX rail corridor to the south, NPT's main mechanical shop and office building parcel to the east (1755 Dale Road BCP Site), and a cemetery to the west (see **Figures 1 and 2**).

In 1958, NPT, known at the time as Niagara Transformer Corporation (NTC), purchased the 1747 Dale Road property (*NPT and NTC are used interchangeably in this section, and where appropriate)*. There are no records of industrial activity on the Site prior to the date of purchase and/or construction of NTC's manufacturing facility. Until 1980, oils containing polychlorinated biphenyls (PCBs) were used and stored on Site or used as an insulating fluid in the manufacture of liquid-filled transformers. Since 1980, NTC (and now NPT) no longer stores or uses oils containing PCBs at the 1747 Dale Road SSF Site. NPT purchased both the 3-acre BCP Site (1755 Dale Road BCP Site) and the adjoining 1.5-acre vacant parcel to the east of the BCP Site (0 Dale Road) in 1983.

On the Site, there is an active mechanical shop (with offices) building, a warehouse building, and an asphalt covered parking area (called the South Yard Area) between the buildings (see **Figure 2**). The existing facility previously handled PCB-containing dielectric fluids for use in transformer rebuilding, repair, and manufacture. A limited portion of the mechanical shop/office building was contaminated by the handling of PCBs. Additional off-site streams, ditches, and retention ponds were also contaminated because of off-site transport of PCBs by sediments and surface waters. Historical structures include a former tank farm and storage building located south of the South Yard Area, both of which have been removed. Both current and historical structures are shown in **Figure 2**.

On April 10, 1990, Town of Cheektowaga Highway Department employees reported to New York State Department of Environmental conservation (NYSDEC) that oil was seeping into the drainage ditch between the railroad yard and the south end of the 1747 Dale Road SSF Site. When the oil was sampled and analyzed it contained PCBs at a concentration of approximately 57,000 parts per million (ppm). Based on the preliminary sampling results, visible seepage to the ditch, and documented use of PCB compounds at the SSF Site, the NYSDEC suspected the source of contamination was the NTC property. Based on this finding, NYSDEC and NTC agreed to an Order on Consent (Index Number B9-0334-90-05). The Order became effective on April 2, 1991, and required NTC to implement a Remedial Investigation/Feasibility Study (RI/FS) for the site. The NYSDEC designated the contaminated section of the drainage ditches as Operable Unit (OU-1). An Interim Remedial Measure (IRM) Work Plan for OU-1 was prepared and submitted to NYSDEC on February 22, 1991 to minimize the migration of contamination from the ditches during the investigatory process.

1.2 Summary of Site Investigation Results

In September 1993, a Remedial Investigation/Feasibility Study (RI/FS) was conducted by NTC under a NYSDEC Consent Order. The RI found PCBs to be the contaminant of concern due to their detected concentrations and prevalence across the Site (detected in ditch sediment, ditch surface water, surface soil, subsurface soil, and shallow/deep groundwater). The RI did not identify PCB contamination north of the on-site mechanical shop/office building.

The RI described two water-bearing zones at the Site: shallow overburden groundwater (15 wells) in the upper 20 feet described as “perched” above a silt/clay till and lacustrine clay confining unit (low permeability, non-water bearing unit with a thickness of 33 to 50 feet underlying the entire Site), and deep groundwater (3 wells) within the sand/gravel regolith and upper bedrock (Onondaga Limestone) beneath the confining layer. During the RI, PCB concentrations in the shallow groundwater were in the 1 to 10 ug/L range for 13 of the 15 shallow wells, with elevated concentrations at two wells were 5,050 (NTS-2S) and 22,000 ug/L (NTS-11S). PCBs were not detected in bedrock groundwater (NTC-1D, NTC-8D, or NTC-9D). Volatile organic compounds (VOCs), specifically dichlorobenzene (DCB) and trichlorobenzene (TCB), commonly present in PCB mixtures like those used at the Site, were also detected in shallow groundwater (NTS-7S) at concentrations exceeding regulatory standards during the RI. However, these VOCs were not detected in the soil, sediment, surface water, or bedrock groundwater samples.

Dense and light non-aqueous phase liquids (DNAPL and LNAPL, respectively) were observed in two shallow wells (NTS-2S and NTS-11S) and LNAPL was observed at the seep area at the south end of the Site. The LNAPL was described as a sheen (or residual mineral oil) and the DNAPL was thicker (with a higher percentage of PCBs). NAPL migration was suspected to be the result of shallow subsurface tile drains and the flow of perched groundwater rather than through the low permeability confining layer.

Across the site, PCB concentrations rapidly decreased to the southeast where concentrations were less than 10 ppm. PCB contamination was also found in the soils of the adjacent St. Adalbert's Cemetery, within an area ten feet from the Niagara Transformer property line, as well as off-site ditches and stormwater retention pond.

1.3 Summary of Remedial Action

A NYSDEC Record of Decision (ROD) was signed on December 30, 1993, which identified excavation and off-site disposal of soil and sediment as the site remedy. The ROD, with clarification from a November 1995 Explanation of Significant Differences (ESD), defined surface

soil and/or sediment at a depth less than 10 inches below the surface, and subsurface soil at a depth greater than 10 inches below the surface. As such, ROD-established Site-Specific Cleanup Goals (SSCGs) for remaining surface soil and/or sediment is a total PCB concentration at or below 1 mg/kg (or ppm), and/or a total PCB concentration at or below 10 mg/kg (ppm) for subsurface soil. During the design of the selected site remedy, soil contamination in the South Yard Area was found to extend much deeper than expected (greater than 20-feet). This deeper area of PCB contamination, ranging from the SSCG of 10 ppm to 96 ppm, was identified as a "Corridor" measuring approximately 60-feet wide by 175-feet long; the approximate location is shown in **Figure 3**. It was determined that removing contaminated soil below four feet within the South Yard Area Corridor was not feasible because it would compromise the substructure of the existing mechanical shop/office building, so this deeper PCB contamination was not removed (see Section 1.4, *Remaining Contamination*). The 1995 Remedial Design therefore limited the excavation and removal depth to the upper four feet in the South Yard Area. Remediation began in April 1996 and was completed in September 1997. During remediation, the following actions were performed:

- Contaminated soil and debris material were excavated from the 1747 Dale Road SSF Site, adjacent cemeteries, and the downgradient drainage ditches, sewer, and retention pond.
- Asphalt associated with the South Yard Area, and a portion of the east driveway was removed.
- On-site soil was excavated from the north end of the mechanical shop/office building to the east, west, and south property boundaries with the mechanical shop/office building left in place. Remedial excavation included the South Yard Area (48-inches), from the South Yard Area to the southern property boundary (24-inches), portions of the east driveway (18 and 48-inches), and a portion west of the mechanical shop/office building (12-inches) (see **Figure 3**).
- The tank farm that NTC used to store PCB-containing dielectric fluids was demolished.
- 24,000 tons of hazardous waste (i.e., PCB concentrations greater than 50 ppm), 21,000 tons of non-hazardous waste (PCB concentrations less than 50 ppm), and 18 tons of decontaminated scrap steel were removed from the site and disposed of off-site.

Following remediation, the affected areas were restored by placing backfill, where necessary; installation of a new storm drain system and associated piping/structures; installation of asphalt pavement in the South Yard Area and east driveway; installation of a new tank farm; and topsoiling, seeding, and mulching (or placing sod in cemetery areas only). The 1997 Final Remediation Report provides additional details about the remediation of the 1747 Dale Road SSF Site. Following completion of the remediation activities, a few persistent releases of low-level PCBs were identified and subsequently mitigated, including:

- **1997 Staging Area & 1755 Dale Road Remediation:** In conjunction with the previously described 1747 SSF Site remediation (on- and off-site) conducted in 1996 and 1997, the remediation contractor was allowed to use a portion of the adjacent 1755 Dale Road Site, now known as the 1755 Dale Road Brownfield Cleanup (BCP) Site, for staging and storage of equipment and placement of field/office trailers in an area directly east of the South Yard Area and east driveway. In 1996 and prior to remediation, pre-mobilization sampling of the Contractor's Staging Area and the western portion of the 1755 Dale Road

parcel, conducted by NYSDEC, identified PCB contamination in surface (0 to 10 inches) and subsurface (> 10 inches) soils of the 1755 Dale Road Site. Fieldwork directives were issued by the NYSDEC to the Contractor which included installation of geotextile and stone over the contaminated surface soils to facilitate use of the Staging Area (during the SSF Site remediation) and prevent contaminant migration. In April 1997 and following the 1997 remediation of the SSF Site, additional sampling identified PCB-contamination in the previously placed Staging Area stone, most of which was identified on the west side of the Staging Area around the decontamination pad and haul roads, and along the east side of the east driveway. Staging Area and 1755 Dale Road remediation began in June 1997 and consisted of the excavation and off-site disposal of nearly ±2,250-tons of PCB-contaminated soil (±1,350-tons were hazardous and ±900-tons were non-hazardous), which included the Staging area stone and geotextile; excavation depths ranged from 6.0 to 48-inches in depth. In consideration of the restricted industrial end-use of the 1755 Dale Road property, access issues, and economic considerations, low-level PCB-contamination (less than 10 ppm) were allowed to remain in surface (0 to 10 inches) and subsurface (> 10 inches) soil of the former Staging Area. Excavations were backfilled with clean soil or gravel and completed with topsoil/seeding and mulch. The Staging Area and western portion of 1755 Dale Road remediation was substantially completed in September 1997. The approximate locations of the remediation excavation limits are shown in **Figure 3**.

- **1997 Roof Runoff Mitigation:** In 1997, it was discovered that the roof of the main building was contaminated with PCBs. Later in 1997, an emergency water treatment system (EWTS) was installed at the head of the site drainage ditches to prevent their recontamination by contaminated roof runoff. Sampling of the roof and drainage piping was performed again in 1998 to determine the effectiveness of the roof replacement work. The sample results indicated continuing low-level releases of PCBs. Additional work was completed by NYSDEC in 1999 to flush and reroute the drain lines.
- **2003 Stormwater IRM:** In 1999 additional field investigations were initiated to determine the source(s) of continuing releases of PCBs to off-site surface water and the extent of recontamination of the off-site drainage ditches. The investigation data indicated that the on-site storm sewers were acting as a pathway for the migration of residual contamination from the 1747 Dale Road SSF Site (mainly from under the active main mechanical shop/office building). Because removal of additional contamination from under the building was not feasible, an Interim Remedial Measure (IRM) was implemented in 2003 to treat stormwater flow and address areas of recontamination in the drainage ditches. To prevent contaminated shallow groundwater from migrating off the Site, a subsurface low permeability slurry wall was installed around the perimeter of the asphalt-covered South Yard area, a portion of which was replaced with a concrete cutoff wall (see **Figure 2**). The combined slurry/concrete cutoff wall confines the shallow groundwater beneath the asphalt cover in the South Yard area, and the asphalt cover prevents surface water from seeping into the shallow groundwater. This work was substantially completed by August 2004.
- **2004 East Yard Staging Area Remediation:** As part of the 2003 Stormwater IRM, the remediation contractor was allowed to use a portion of the adjacent 1755 Dale Road Site, now known as the 1755 Dale Road BCP Site, to perform equipment wash down and staging in an area directly east of the South Yard Area and east driveway. Pre-mobilization sampling indicated elevated PCB concentrations above the SSCGs at nine of the ten sample locations, which ranged from 11.1 to 1,180,000 ppm. Immediately following

sampling and prior to receiving the analytical results, the remediation contractor stripped and stockpiled the upper 6-inches of soil within the staging area; the stockpile was covered to prevent erosion and eventually lined. Two composite samples of the stockpile indicated a PCB concentration of 3,310 mg/kg and 619 mg/kg, both well above the SSCGs, and the PCB-hazardous waste criteria (50 ppm). The stockpile, along with an additional 6-inches of soil beneath the stockpile, were disposed of concurrently with the other Staging Area soils described below.

Additional sampling to define the vertical and lateral extent of contamination around the stockpile was performed. The two pre-mobilization samples with the highest PCB concentration were re-sampled at 6, 12, 24, and 36 inches below ground surface (after grading) along with twenty additional hand augured samples from 6, 12, and 24 inches below ground surface, and three test pit sidewall samples from the same intervals. Using the SSCGs, analytical results identified a "hot spot" area beneath the stockpile that was limited to 24 inches (east side) and 48 inches (west side) below ground surface (see **Figure 3**). In June 2004, approximately 407 tons of hazardous soil (greater than 50 ppm) were excavated and disposed of off-site. A composite verification sample collected from the bottom of the excavation confirmed a total PCB concentration (2.280 mg/kg total PCBs) compliant with the SSCGs. The excavation was backfilled using spoils from the concrete/slurry cutoff wall trench, existing stockpiles of material south of the EWTS (and adjacent ditch), and imported topsoil; compacted in 12-inch lifts.

- **2003 Ductwork & Fan Cleaning:** In 2008, as part of the stormwater investigation program, samples collected from under the fume hood and exhaust fan discharges on the east side of the main mechanical shop/office building at the 1747 Dale Road SSF Site indicated the presence of PCBs. A remedial cleanup was performed to address this contamination which included the removal and cleaning of ductwork and fans on the east side of the manufacturing facility, cleanup of the outside asphalt under the ductwork, and the removal of sediments from a nearby catch basin. A 2008 Closeout Report indicated that the PCB-contamination had been effectively removed. Also in 2008, NYSDEC determined that further treatment of surface water and roof runoff was unnecessary and the operation of the EWTS at the head of the site drainage ditches was discontinued. The ETWS was decommissioned and removed in 2009.

1.4 Remaining Contamination

As previously stated, from March 1996 to September 1997 significant environmental remediation has been performed at the SSF Site, which involved excavation and off-site disposal of approximately 45,000 tons of PCB-contaminated soil. During pre-design activities of the ROD selected site remedy, soil contamination beneath the South Yard Area was found to extend greater than 4-feet below ground surface (ft. bgs). This deeper "corridor" of PCB contamination, measuring approximately ±60-feet wide by ±175-feet long, was not removed because it would have compromised the substructure of the existing mechanical shop/office building. Additionally, the soil/fill beneath the existing mechanical shop/office building was not removed and should be considered PCB-contaminated. As such, the soil within the South Yard Area Corridor from 4.0 to 20+ ft. bgs and soil/fill beneath the mechanical shop/office building are considered remaining contamination on the 1747 Dale Road SSF Site (see **Figure 3**). Concentrations exceeding the SSCGs and Part 375 Industrial Use Soil Cleanup Objective (IUSCO) of 25 ppm should be expected in these areas of the SSF Site.

PCBs are considered Constituents of Primary Concern (COPCs) at the SSF Site in subsurface soil within the South Yard Area Corridor ranging in concentration exceeding the SSCG from 10

ppm to 96 ppm with an unknown PCB concentration beneath the on-site mechanical shop/office building. The RI reported that shallow perched groundwater has concentrations of PCBs ranging from 1 to 10 ug/L and chlorinated benzene compounds as high as 335 ug/L and PCBs may continue to be present in low-level concentrations (<1 ppm) in stormwater and sediment south of the SSF Site. The RI also reported PCBs and chlorinated benzene compounds were not detected in bedrock groundwater.

To prevent exposure to the remaining contamination in soil and sediments at the Site, cover systems have been placed over the southern portion of the site and the South Yard Area. The soil cover on the southern portion of the site is comprised of a minimum of 12 inches of clean soil with vegetative cover and the Warehouse Building. The South Yard Area and east driveway are covered with asphalt to prevent surface water infiltration, and a concrete cutoff wall and slurry wall have been installed to prevent the off-site migration of PCB-contaminated shallow groundwater.

1.5 Institutional & Engineering Controls (IC/ECs)

1.5.1 Engineering Controls (ECs)

ECs at the 1747 Dale Road SSF Site are necessary to prevent exposure to the remaining contamination in soil and sediments at the Site, which include a final cover system placed over the southern portion of the Site. The soil cover on the southern portion of the Site is comprised of a minimum of 12 inches of clean topsoil and vegetative cover, and the South Yard Area is covered with asphalt to prevent surface water infiltration. In 2016, NPT constructed an approximately 34,000 square foot steel-sided warehouse building south of the South Yard Area, which contributes to the final cover as hardscape. A subsurface concrete cutoff wall and slurry wall were installed around the southern perimeter of the South Yard Area to prevent the off-site migration of PCB-contaminated shallow groundwater. In addition to the soil and asphalt cover, a system of on- and off-site groundwater monitoring wells, and surface water and sediment sampling locations are used to monitor the effectiveness of the final cover and shallow groundwater flow mitigation systems.

The Soils Management Plan (Soil MP), provided in *Appendix F* of the SMP, provides guidance for the proper handling and final disposition of PCB-contaminated spoil materials excavated in and around the 1747 Dale Road SSF Site. Any proposed maintenance of drainage structures, including asphalt pavement, excavation of existing soils (including subbase materials and subfloor slab materials), decommissioning of monitoring wells/piezometers, and excavation of subsurface utilities must be evaluated for the potential to expose PCBs or other contaminants to the environment which requires NYSDEC review and approval.

1.5.2 Institutional Controls (ICs)

ICs at the 1747 Dale Road SSF Site are necessary to ensure the effectiveness of the implemented remedial actions and to prevent existing or future property owners from destroying the ECs (i.e., asphalt-covered South Yard Area as well as the subsurface concrete/slurry walls). The ICs refer to nonphysical mechanisms designed to: restrict the use or development of the site; limit human exposure to remaining site contaminants; prevent any action that would threaten the effectiveness or operation and maintenance of a remedy at or pertaining to the Site; and, implement, maintain, and monitor the constructed EC systems.

The ICs identified at the 1747 Dale Road SSF Site are included in the Declaration of Covenants and Restrictions, which stipulates the following:

- No construction activity shall be allowed beneath the main building's floor slab(s) or in the asphalt-covered South Yard Area without written approval from NYSDEC. Detailed drawings prepared by a NYS Professional Engineer (NYS PE) showing the proposed activities and specifications fully describing the work, the construction or restoration effort, and the hazardous material handling and disposal procedures will be required prior to obtaining approval.
- No construction activity shall be allowed in the vicinity of the concrete/slurry cutoff walls around the perimeter of the asphalt-covered South Yard Area without written approval from NYSDEC. Detailed drawings prepared by a NYS PE showing the proposed activities and specifications will be required prior to obtaining approval. The drawings shall clearly show the location of the concrete/slurry cutoff walls, and the specifications shall describe excavation warnings and concrete/slurry cutoff wall repair or replacement requirements.
- Excavated material and/or debris removed as part of any maintenance of the storm sewers in the asphalt-covered South Yard Area shall be treated as hazardous material unless shown to be otherwise by analytical testing.

1.6 Constituents of Primary Concern (COPCs)

Historical remedial activities performed on the 1747 Dale Road SSF Site have resulted in residual concentrations of PCBs (primarily Aroclor 1260 with lower concentrations of Aroclor 1254) in subsurface soil, surface water, groundwater, and sediment. Higher concentration PCBs reportedly remain within deeper subsurface soil (from 4.0 to 20+ ft bgs) in the South Yard Area Corridor as well as beneath the mechanical shop/office building (see **Figure 3**). The RI reported that shallow seasonally perched groundwater is impacted with PCBs and chlorinated benzene compounds (DCB and TCB). PCBs may continue to be present in low-level concentrations in stormwater and sediment south of the SSF Site. The RI also reported PCBs and chlorinated benzene compounds were not detected in bedrock groundwater.

As such, PCBs are considered the Constituents of Primary Concern (COPCs) in subsurface soil, surface water, groundwater, and sediment at the SSF Site along with DCB and TCB in shallow groundwater. Below are the estimated concentrations within various environmental media:

- Surface soil (less than 10 inches) – none.
- Surface water and sediment – low-level PCB concentrations (< 1 ppm).
- Subsurface soil (greater than 10 inches) (outside the South Yard Area Corridor) – low level concentrations (< 10 ppm).
- Subsurface soil within the South Yard Corridor from 4.0 to 20+ ft. bgs – elevated PCB concentrations from 10 to 96 ppm.
- Subbase and subsoils beneath the mechanical shop/office building – unknown PCB concentrations.
- Shallow groundwater – PCB concentrations from 1 to 10 ug/L and DCB/TCB as high as 335 ug/L.
- Bedrock groundwater – none.

1.7 Anticipated Environmental Activities

Routine field activities performed in accordance with the March 2012 SMP include environmental media sampling and site inspections. Additional activities, beyond those required for SMP

compliance may also by required and/or necessary at the SSF Site. Both SMP and non-SMP field activities are discussed in this section and are covered by this HASP.

1.7.1 SMP Field Activities

The March 2012 SMP describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site. The SMP requires semi-annual (April and October) performance of the following: sampling of environmental media (i.e., groundwater, sediment, surface water, and stormwater); inspection of monitoring wells; and inspection of the asphalt-covered South Yard Area enclosed by the low-permeability concrete cutoff wall and slurry wall. Each activity is described below:

- **Groundwater Sampling:** Ten (10) of the thirteen (13) groundwater monitoring wells, installed both upgradient and downgradient of the SSF Site, are considered network monitoring wells that must be sampled semi-annually. Five of these ten wells are located on the 1747 Dale Road SSF Site (identified as upgradient well NTC-1D, and downgradient wells MW-9, MW-10, MW-IN, and MW-OUT), two downgradient wells are in the railroad track area south of the NTC property (identified as NTC-13S and NTC-14S), and three cross-gradient wells are in St. Adalbert's east cemetery (identified as NTC-9S, NTC-9D, NTC-10S). The remaining three groundwater monitoring wells (identified as MW-6, MW-7, and MW-8) were decommissioned when the warehouse building was constructed in 2016. Network monitoring wells, except for off-site wells NTC-13S and NTC-14S, are shown in **Figure 2**.
- **Stormwater Sampling:** Sampling of stormwater, including roof runoff water, shall be performed semi-annually at 14 locations. Qualifying storm events and sampling procedures are provided in *Appendix G* of the SMP along with a figure identifying the sample locations.
- **Soil Sampling:** Soil sampling is required whenever soil is excavated from any area south of the mechanical shop/office building and must be performed in accordance with Appendix D of the SMP and DER-10. This includes any intrusive activity that penetrates the final soil and/or asphalt cover, including redevelopment and/or facility expansion (see *non-SMP Activities in Section 1.7.2*).
- **Sediment Sampling:** Sediment samples are to be collected from the following locations: the 18-inch-diameter high-density polyethylene (HDPE) outlet at the SSF Site (or at the nearest practical point downstream of this outlet) (NTC-001 SED); the surface water inlet at the Thruway Plaza Retention Pond located west of the SSF Site (NTC-002 SED); and the surface water outlet of the Thruway Plaza Retention Pond (NTC-003 SED). Sediment sampling should be performed semi-annually and concurrently with groundwater and surface water sampling. Sampling procedures and locations are provided in *Appendix G* of the SMP; only the on-site sediment location NTC-001 SED is shown on **Figure 2**.
- **Surface Water Sampling:** Surface water samples are to be collected from the same locations as the sediment sample locations: the 18-inch-diameter HDPE outlet at the SSF Site (or at the nearest practical point downstream of this outlet) (NTC-001 SW); the surface water inlet at the Thruway Plaza Retention Pond located west of the SSF Site (NTC-002 SW); and the surface water outlet of the Thruway Plaza Retention Pond (NTC-003 SW). Surface water sampling should be performed semi-annually and concurrently with groundwater and sediment sampling. Sampling procedures and locations are provided in *Appendix G* of the SMP; only the on-site surface water location (NTC-001 SW) is shown on **Figure 2**.

- **Monitoring Well Inspection:** All on-site and off-site network monitoring wells shall be inspected semi-annually to determine their physical condition and to identify necessary maintenance required to allow the monitoring wells to remain operational.
- **Site-Wide & Final Cover Inspection:** Perform a semi-annual inspection of the asphalt-surfaced South Yard Area enclosed by the low-permeability concrete cutoff wall and slurry wall, including the east driveway. The asphalt surface should be inspected for cracks, open joints between concrete and other non-asphalt materials, developing potholes, excessive flexing in unstable or soft areas, and other signs of surface and sub-surface distress. Observations regarding cracks and comments regarding repairs of cracks should be recorded on inspection *Form 1* and observations regarding pavement distress and comments regarding repairs of distressed areas should be recorded on inspection *Form 2*; both forms are included in the SMP.

Environmental media monitoring activities to assess natural attenuation of contamination will continue until NYSDEC has determined that residual levels of contaminants in groundwater, surface water, and sediments are consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC. If groundwater, surface water, or sediment contaminant levels become asymptotic at levels that are not acceptable to NYSDEC, additional source removal, treatment, and/or control measures will be evaluated.

In addition, a sitewide inspection shall be performed at least once a year, and after all severe weather conditions that may affect ECs or monitoring devices. Based on the results of these inspections, a report shall be compiled that provides sufficient information to assess the following:

- Compliance with all ICs, including changes in site use;
- The condition and effectiveness of all ECs;
- General site conditions at the time of the inspection including identification and summary of any intrusive activities performed during the compliance period;
- Ensure site management activities (i.e., confirmation sampling, health and safety inspections, etc.) are being conducted, if applicable;
- Compliance with the permits and schedules included in this Site Management Plan as well as included in the Operation and Maintenance (O&M) Plan, if applicable; and
- Confirm that site records are up to date.

1.7.2 Non-SMP Field Activities

The non-SMP field activities related to a project specific scope of work will dictate which activities will be performed on the SSF Site. Some of those activities may include, but are not limited to:

- Clearing and grubbing.
- Completion of building materials inventory.
- Management (including characterization, disposal, recycling, and/or reuse) of building materials.
- Building demolition.
- Excavation of exploratory test pits.

- Soil boring advancement (e.g., direct push, rotary with hollow stem auger).
- Collection of environmental media samples for characterization and analytical analysis.
- Installation of groundwater monitoring wells.
- Development and sampling of newly installed groundwater monitoring wells.
- Collection of indoor air and subslab soil vapor samples.
- Waste characterization sampling.
- Management (including characterization and disposal, if needed) of investigation-derived waste (IDW).

The SSHO and PM should review all non-SMP activities required by a project-specific scope of work and evaluate them against the provisions of this HASP. A revision of the HASP may be required to address any new hazards not otherwise presented herein.

2.0 Organizational Structure, Roles, & Responsibilities

This section of the HASP describes the lines of authority, responsibility, and communication as they pertain to health and safety functions at the SSF Site. The purpose of this section is to identify the personnel who impact the development and implementation of the HASP and to describe their roles and responsibilities. This section also identifies other contractors and subcontractors that may be involved in work operations and establishes lines of communication among them for health and safety matters. The organizational structure described in this section is consistent with the requirements of 29 CFR 1910.120(b)(2). This section will be reviewed by the Project Manager and updated as necessary to reflect the current organizational structure at this SSF Site.

All TRC personnel on the SSF Site must comply with the minimum requirements of this HASP. The specific responsibilities and authority of management, safety and health, and other personnel on this SSF Site are detailed in the following paragraphs.

2.1 ECR Safety Manager

The TRC ECR Safety Manager is ***Mr. Dave Sullivan.*** The ECR Safety Manager is responsible for developing and implementing the Health and Safety program and policies for TRC, and consulting with corporate management to ensure adequate resources are available to properly implement these programs and policies. The ECR Safety Manager coordinates TRC's Health and Safety training and medical monitoring programs and assists project management and field staff in developing site-specific health and safety plans.

2.2 Project Manager

The Project Manager for this SSF Site is ***Mr. Bryan C. Hann, P.G*** *(or designated other).* The Project Manager has the responsibility and authority to direct all TRC work operations at the SSF Site. The Project Manager coordinates safety and health functions with the Site Safety and Health Officer and bears ultimate responsibility for proper implementation of this HASP. He/she may delegate authority to expedite and facilitate any application of the program, including modifications to the overall project approach as necessary to circumvent unsafe work conditions. Specific duties of the Project Manager include:

- Preparing and coordinating the Site Work Plan.
- Providing TRC workers with work assignments and overseeing their performance.
- Coordinating health and safety efforts with the Site Safety and Health Officer (SSHO).
- Reviewing the emergency response coordination plan to assure its effectiveness.
- Serving as the primary liaison with site contractors and the property owner.

2.3 Site Safety and Health Officer

The Site Safety and Health Officer (SSHO) for this SSF Site is ***(to be determined)***. The qualified alternate SSHO is ***(to be determined).*** The SSHO reports to the Project Manager. The SSHO is on-site or readily accessible to the SSF Site during all work operations and has the authority to halt site work if unsafe conditions are detected. The specific responsibilities of the SSHO are:

- Managing the safety and health functions for TRC personnel on the SSF Site.
- Serving as the point of contact for safety and health matters.
- Ensuring that TRC personnel working on the SSF Site have received proper training (per 29 CFR Part 1910.120(e)), that they have obtained medical clearance to wear respiratory protection (per

29 CFR Part 1910.134), and that they are properly trained in the selection, use and maintenance of personal protective equipment, including qualitative respirator fit testing.

- Performing or overseeing site monitoring as required by the HASP.
- Assisting in the preparation and review of the HASP.
- Maintaining site-specific safety and health records as described in this HASP.
- Coordinating with the Project Manager, Site Workers, and Contractor's and/or Subcontractor's SSHO as necessary for safety and health efforts.

2.4 Assistant Site Safety and Health Officer (Assistant SSHO)

In the event the SSHO is not on site, the Assistant SSHO will assume the responsibilities of the SSHO. It is TRC's intent to have a TRC SSHO or Assistant SSHO available onsite during work activities. On the occasion neither person is physically onsite, they will be available by phone or pager.

2.5 Site Workers

Site workers are responsible for understanding and complying with this HASP or a more stringent HASP, if appropriate (i.e., Contractor and Subcontractor's HASP); required to participate in Tailgate Safety Meetings prior to commencement of site work; using proper personal protective equipment (PPE); reporting unsafe acts and conditions to the SSHO; and following the safety and health instructions of the Project Manager, SSHO, and Assistant SSHO. Each TRC employee working on the SSF Site is required to acknowledge an understanding of the HASP by signing the acknowledgement page of the HASP.

2.6 Other Site Personnel

Other site personnel who will have health and safety responsibilities may include specialty Contractors/Subcontractors, including their designated Contractor SSHO and employees (i.e., drillers, laboratories, site contractors, etc.), who will be responsible for developing, implementing, and enforcing a HASP equally stringent or more stringent than TRC's HASP. TRC assumes no responsibility for the health and safety of anyone outside its direct employment. Each Contractor and Subcontractor's HASP shall cover all non-TRC site personnel. Each Contractor and Subcontractor shall assign an SSHO who will coordinate with TRC's SSHO as necessary to ensure effective lines of communication and consistency between contingency plans.

In addition to TRC and Contractor personnel, other individuals who may have responsibilities in the work zone include Subcontractors and Governmental Agencies performing site inspection work (i.e., NYSDEC and New York State Department of Health, or NYSDOH). TRC shall be responsible for ensuring that Government Agents, and the Contractor for ensuring that their Subcontractors have received current OSHA-required training (29 CFR 1910.120(e)), including initial, refresher and site-specific training, and each shall be respectively responsible for the safety and health of these individuals while they are on-site.

3.0 Hazard Evaluation

Due to the presence of certain contaminants at the SSF Site, the possibility exists that workers will be exposed to hazardous substances during field activities. The principal points of exposure would be through direct contact with and incidental ingestion of soil, and through the inhalation of contaminated particles or vapors. Other points of exposure may include direct contact with groundwater, surface water, stormwater, and/or sediment. In addition, the use of drilling and/or medium to large-sized construction equipment (e.g., excavator) will also present conditions for potential physical injury to workers. Further, since most of the on-site work will be performed outdoors, the potential exists for heat/cold stress to impact workers, especially those wearing protective equipment and clothing. Adherence to the medical evaluations, worker training relative to chemical hazards, safe work practices, proper personal protection, environmental monitoring, establishment work zones and site control, appropriate decontamination procedures and contingency planning outlined herein will reduce the potential for chemical exposures and physical injuries.

3.1 Chemical Hazards

As discussed in Section 1.0, historical remedial activities performed on the 1747 Dale Road SSF Site have resulted in residual concentrations of PCBs in subsurface soil, surface water, groundwater, and sediment as well as higher concentration PCBs in deeper subsurface soil (from 4.0 to 20+ ft bgs) in the South Yard Area corridor and beneath the mechanical shop/office building (see **Figure 2**). Chlorinated benzene compounds (DCB and TCB), commonly present in PCB mixtures like those used at the SSF Site, were also detected in shallow perched groundwater. PCBs were not detected in bedrock groundwater. Previous field investigations and remedial efforts have provided significant information concerning the types of contaminants that may potentially be encountered during planned environmental activities. **Table 1** lists exposure limits for airborne concentrations of the remaining contamination identified in Section 1.3 of this HASP. A brief description of the toxicology of the COPCs and related health and safety guidance and criteria are provided below.

- **PCBs (CAS #1336-36-3)** are a group of man-made organic chemicals consisting of carbon, hydrogen and chlorine atoms. The number of chlorine atoms and their location in a PCB molecule determine many of its physical and chemical properties. PCBs have no known taste or smell, and range in consistency from an oil to a waxy solid. According to the USEPA, PCBs were domestically manufactured from 1929 until manufacturing was banned in 1979. Aroclor is a PCB mixture produced from approximately 1930 to 1979 and is one of the best-known trade names for PCB mixtures. There are many types of Aroclors, and each has a distinguishing suffix number that indicates the degree of chlorination. The first two digits typically refer to the number of carbon atoms in the phenyl rings (for PCBs this is 12) and the second two numbers indicate the percentage of chlorine by mass in the mixture. For example, the name Aroclor 1260, the primary PCB detected at the SSF Site (with lower concentrations of Aroclor 1254), means that the mixture contains approximately 60% chlorine by weight. PCBs have been demonstrated to cause a variety of adverse health effects in humans including potential carcinogenic and non-carcinogenic effects. Short-term exposure to PCBs can cause skin, eye, and throat irritation as well as breathing difficulties, nausea, vomiting, weight loss, and stomach pain. Long-term exposure to PCBs can cause cancer, liver damage, and reproductive problems, birth defects, mental retardation, and fetal and infant death. PCBs do not readily break down once in the environment. They can remain for long periods cycling between air, water and soil. PCBs can be carried long distances and have been found in snow and sea water in areas far from where they were released into the environment. In general, the lighter the form of PCB, the further it can be transported from the source of contamination. PCBs are persistent organic pollutants that accumulate in the body and environment, leading to a variety of adverse health effects in humans. Though their production was banned in the U.S. in 1977, they remain a public health concern due to their long-lasting presence

in the environment. PCBs have been classified as human carcinogens by the International Agency for Research on Cancer (IARC), based on consistent evidence from both human and animal studies. Beyond cancer, exposure to PCBs is associated with a range of serious non-cancer health problems, such as reproductive and developmental effects, endocrine system disruption, nervous system effects, immune system effects, liver damage, and skin conditions (acne and rashes).

- **Dichlorobenzenes (DCBs).** There are three distinct chemical compounds which are dichlorobenzenes: **1,2-Dichlorobenzene or ortho-dichlorobenzene (o-DCB) (CAS #95-50-1)** exhibits significant adsorption to sediment and is less likely to biodegrade in anaerobic conditions; **1,3-Dichlorobenzene or meta-dichlorobenzene (m-DCB) (CAS #541-73-1)** has shown preferential attenuation of m-DCB and other isomers in some environments, indicating that differences exist in their fate; and, **1,4-Dichlorobenzene or para-dichlorobenzene (p-DCB) (CAS #106-46-7)** adsorbs to soil and can leach into groundwater, but also volatilizes readily. A study showed that p-DCB was more susceptible to biodegradation in a septic system plume than other isomers. All three isomers are colorless chlorobenzenes with the formula $C_6H_4Cl_2$. They differ structurally based on where the two chlorine atoms are attached to the ring. DCBs are relatively mobile in soil, with moderate to strong adsorption depending on the soil type and organic matter content. Their primary fate processes are volatilization from soil and water surfaces to the atmosphere and atmospheric degradation by hydroxyl radicals. In soil and water, biodegradation can occur under aerobic conditions, especially with adapted microbial communities, but it's not expected in anaerobic environments. Adsorption to sediments is a significant process in aquatic systems. DCBs can cause eye, skin, and respiratory irritation from high-level, short-term exposure, and may lead to liver, kidney, and nervous system damage from long-term exposure. The health effects vary among the three different isomers: 1,2-DCB, 1,3-DCB, and 1,4-DCB. Common routes of exposure include inhalation, ingestion, and dermal contact.
- **Trichlorobenzenes (TCBs), primarily 1,2,4-TCB (CAS #120-82-1)**, are volatile compounds that partition to air and sediment, but also have moderate water solubility, which influences their transport. In the environment, they degrade slowly but can undergo biodegradation to lower chlorinated species under certain conditions. Transport occurs through volatilization into the air, leaching to groundwater, and adsorption to soil and sediment. Exposure to the public primarily occurs through the inhalation of contaminated air and the ingestion of contaminated food and water, while occupational exposure can involve inhalation and dermal contact. The fate and transport of 1,2,4-TCB, depends on the environmental medium, with significant volatilization from water and soil and subsequent atmospheric degradation via reaction with hydroxyl radicals. In soil and sediments, it biodegrades slowly under aerobic conditions but can undergo reductive dechlorination to less chlorinated compounds under anaerobic conditions. 1,2,4-TCB adsorbs to soil and sediments, which can slow its evaporation and transport, and it also bioconcentrates in aquatic organisms. Prolonged or high-level exposure to 1,2,4-trichlorobenzene can cause irritation of the skin, eyes, and respiratory system, and may damage the liver and kidneys. Due to limited human data, most health effect predictions are based on animal studies. There are no specific studies on cancer in humans exposed to 1,2,4-TCB.

With respect to the anticipated environmental activities discussed in Section 1.7, possible routes of exposure to the above-mentioned contaminants are presented in **Table 2**. The use of proper respiratory equipment, as outlined in Section 7.0 of this HASP, will minimize the potential for exposure to airborne contamination. Exposure to contaminants through dermal and other routes will also be minimized using safe work practices (Section 6.0), protective clothing (Section 7.0), and proper decontamination procedures (Section 12.0).

3.2 Physical Hazards

Environmental activities at the SSF Site may present the following physical hazards:

- The potential for physical injury during heavy construction equipment use, such as backhoes, excavators, bulldozers, cranes, vacuum trucks, and drilling equipment.
- The potential for heat/cold stress to employees during the summer/winter months (see Section 10.0).
- The potential for slip, trip, and fall injuries due to rough, uneven terrain, and/or open excavations, pits, or manholes.

These hazards represent only some of the means of injury that may be present during various environmental activities to be conducted at the SSF Site. Since it is impossible to list all potential sources of injury, it shall be the responsibility of each individual to exercise proper care and caution during all phases of the work.

4.0 Training

4.1 Site Workers

All personnel performing environmental activities at the SSF Site (such as, but not limited to, equipment operators, general laborers, and drillers) and who may be exposed to hazardous substances, health hazards, or safety hazards and their supervisors/managers responsible for the SSF Site shall receive training in accordance with 29 CFR 1910.120(e) before they are permitted to engage in operations in the exclusion zone or contaminant reduction zone. This training includes an initial 40-hour Hazardous Waste Site Worker Protection Course (HAZWOPER) and 3 days of actual field experience under the direct supervision of a trained, experienced supervisor. After the initial training, an 8-hour Annual Refresher Course subsequent to the initial 40-hour training is required to maintain certification. Site-specific training shall also be provided by the SSHO prior to the start of field activities.

HAZWOPER 24-hour training is for workers who occasionally encounter hazardous materials at contaminated sites but don't directly participate in cleanup, and whose exposure is below Permissible Exposure Limits (PELs) for fewer than 30 days annually at fully characterized sites. Training requires a minimum of 24 hours of instruction and one day of supervised field experience. After the initial training, an 8-hour annual refresher course is required to maintain certification.

A description of topics covered by the 40-hour HAZWOPER training is provided below. The topics covered by the 24-hour HAZWOPER training are a subset of these topics.

4.1.1 Initial and Refresher Training

Initial and refresher training is conducted by a qualified instructor as specified under OSHA 29 CFR 1910.120(e)(5) and is specifically designed to meet the requirements of OSHA 29 CFR 1910.120(e)(3) and 1910.120(e)(8). The training covers, as a minimum, the following topics:

- OSHA HAZWOPER regulations.
- Site safety and hazard recognition, including chemical and physical hazards.
- Medical monitoring requirements.
- Air monitoring, permissible exposure limits, and respiratory protection level classifications.
- Appropriate use of PPE, including chemical compatibility and respiratory equipment selection and use.
- Work practices to minimize risk.
- Work zones and site control.
- Safe use of engineering controls and equipment.
- Decontamination procedures.
- Emergency response and escape.
- Confined space entry procedures.
- Heat and cold stress monitoring.
- Elements of a HASP.
- Spill containment.

Initial training also incorporates workshops for PPE and respiratory equipment use (Levels A, B, and C), and respirator fit testing. Records and certification received from the course instructor documenting each employee's successful completion of the training identified above are maintained on file at TRC's West Seneca, New York office. Contractors and Subcontractors are required to provide similar documentation of training for all their personnel who will be involved in on-site work activities.

Any employee who has not been certified as having received health and safety training in conformance with 29 CFR 1910.120(e) is prohibited from working in the exclusion and contamination reduction zones, or to engage in any on-site work activities that may involve exposure to hazardous substances or wastes.

4.1.2 Site Training

Site workers are given a copy of this HASP and provided with a site-specific briefing prior to the commencement of work to ensure that employees are familiar with the HASP and the information and requirements it contains. The site briefing shall be provided by the SSHO prior to initiating field activities and shall include:

- Names of personnel and alternates responsible for Site safety and health.
- Safety, health, and other hazards present on the SSF Site.
- The site layout includes work zones and places of refuge.
- The emergency communications system and emergency evacuation procedures.
- Work practices by which the employee can minimize risks from hazards.
- Safe use of engineering controls and equipment on the site.
- Medical surveillance, including recognition of symptoms and signs of over-exposure as described in Section 5.0 of this HASP.
- Safe work practices as described in Section 6.0 of this HASP.
- Use of PPE as presented in Section 7.0 of this HASP.
- Exposure monitoring as described in Section 8.0 of this HASP.
- The spill containment program as detailed in Section 9.0 of this HASP.
- Heat and cold stress monitoring as detailed in Section 10.0 of this HASP.
- Work zones and site control as detailed in Section 11.0 of this HASP.
- Decontamination procedures as detailed in Section 12.0 of this HASP.
- Confined space entry procedures, if required, as detailed in Section 13.0 of this HASP.
- Fire prevention and protection as outlined in Section 14.0 of this HASP.
- The Emergency Response Plan (ERP) as detailed in Section 15.0 of this HASP.

Supplemental health and safety briefings will also be conducted by the SSHO on an as-needed basis during the course of the work. Supplemental briefings are provided as necessary to notify employees of any changes to this HASP as a result of information gathered during additional site characterization and analysis. Conditions for which the SSHO may schedule additional briefings include but are not limited to a change in site conditions (e.g., based on monitoring results);

changes in the work schedule/plan; newly discovered hazards; and safety incidents occurring during site work.

4.2 Supervisor Training

On-site safety and health personnel who are directly responsible for or who supervise the safety and health of workers engaged in hazardous waste operations (i.e., SSHO) shall receive, in addition to the appropriate level of worker training described in Section 4.1, above, eight additional hours of specialized supervisory training, in compliance with 29 CFR 1910.120(e)(4).

4.3 Emergency Response Training

Emergency response training is addressed in the ERP, included as **Appendix A**.

4.4 Site Visitors

Each Contractor and Subcontractor's SSHO will provide a site-specific briefing to all SSF Site visitors and other non-TRC personnel who enter the SSF Site beyond the SSF Site entry point. The site-specific briefing will provide information about site hazards, the site layout including work zones and places of refuge, the emergency communications system and emergency evacuation procedures, and other pertinent safety and health requirements as appropriate. Site visitors will not be permitted to enter the exclusion zone or contaminant reduction zones unless they have received the level of training required for site workers as described in Section 4.1.

5.0 Medical Surveillance

Medical surveillance, or monitoring, examinations are provided to TRC employees as stipulated under 29 CFR Part 1910.120(f). These exams include initial employment, at least once every 12 to 24 months (i.e., annual), upon notification (following possible overexposure, exposure, or injury), and termination of employment physicals for all TRC employees involved in hazardous waste site field operations. Post-exposure examinations are also provided for employees who may have been injured, received a health impairment, or developed signs or symptoms of over-exposure to hazardous substances or were accidentally exposed to substances at concentrations above the permissible exposure limits without necessary personal protective equipment. Such exams are performed as soon as possible following development of symptoms or the known exposure event.

Medical evaluations are conducted according to the TRC Medical Monitoring Program and include an evaluation of the workers' ability to use respiratory protective equipment. The examinations include:

- Occupational/medical history review.
- Physical exam, including vital sign measurement.
- Spirometry testing.
- Eyesight testing.
- Audio testing (minimum baseline and exit, annual for employees routinely exposed to greater than 85db).
- EKG (for employees >40 years old or as medical conditions dictate).
- Chest X-ray (baseline and exit, and every 5 years).
- Blood biochemistry (including blood count, white cell differential count, serum multi-plastic screening).
- Medical certification of physical requirements (i.e., sight, musculoskeletal, cardiovascular) for safe job performance and to wear respiratory protection equipment.

The purpose of the medical evaluation is to determine an employee's fitness for duty on hazardous waste sites; and to establish baseline medical data. In conformance with OSHA regulations, TRC will maintain and preserve medical records for a period of 30 years following termination of employment. Employees are provided with a copy of the physician's post-exam report and have access to their medical records and analyses.

6.0 Safe Work Practices

6.1 General Safety Rules

All TRC employees shall conform to the following safe work practices during all on-site work activities conducted within the exclusion and contamination reduction zones:

- No one shall knowingly be permitted or required to work while the employee's ability or alertness is so impaired by fatigue, illness or other causes that it might unnecessarily expose the employee or others to injury.
- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-to-mouth contact is strictly prohibited. The hands and face must be thoroughly washed upon leaving the work area and prior to engaging in any activity indicated above.
- Horseplay, fighting, gambling or the possession of firearms are not permitted.
- Work should be well planned and supervised to prevent injuries. Supervisors shall ensure that employees observe and obey safety rules and regulations.
- An employee reporting for work who, in the opinion of his supervisor, is unable to perform his assigned duties in a safe and reasonable manner shall not be allowed on the job.
- Wear the required PPE in the workplace when appropriate and/or when specified in this HASP. Loose clothing and jewelry should not be worn when operating machinery.
- Respiratory protective equipment and clothing must be worn by all personnel entering the SSF Site as required by the HASP or as modified by the SSO. Excessive facial hair (i.e., beards, long mustaches, or sideburns) that interferes with the satisfactory respirator-to-face seal is prohibited.
- Contact with surfaces/materials either suspected or known to be contaminated will be avoided to minimize the potential for transfer to personnel, cross contamination and need for decontamination.
- Medicine and alcohol can synergize the effects of exposure to toxic chemicals. Due to possible contraindications, use of prescribed drugs should be reviewed with the TRC occupational physician. Alcohol and drugs are strictly prohibited on any TRC premises, customer property, and/or in Company vehicles. Employees shall not report to work under the influence of drugs or alcohol. Employees are prohibited from possessing, using, manufacturing, distributing, dispensing, selling or purchasing illegal drugs or other controlled substances (as defined under federal and state law).
- All personnel shall be familiar with the standard operating safety procedures and additional instructions contained in this HASP. No employee shall be assigned a task without first having been instructed on proper methods, including safety training, of carrying out the task. Any employee who feels they have not received proper instruction shall notify their supervisor prior to carrying out the task.
- Do not operate any machinery if you are not authorized or qualified to do so. If unsure how to operate a machine or perform any assigned task, ask the Project Manager/Supervisor before proceeding.
- Do not operate motorized equipment until proper training and certification has been provided (e.g. forklifts, etc.).
- On-site personnel shall use the “buddy” system. No one may work alone (i.e., out of earshot or visual contact with other workers) in the exclusion zone.
- Personnel and equipment in the contaminated area shall be minimized, consistent with effective site operations.

- All employees have an obligation to immediately report and if possible, correct unsafe work conditions. Injuries and accidents shall be reported immediately to the immediate supervisor, who will then report it to the SSHO.
- Although not a requirement for the SSF Site, use of contact lenses on-site is typically not permitted. Spectacle kits for insertion into full-faced respirators can be provided for TRC employees, as requested, and required.

6.2 Contractor Safety Rules

The recommended specific safety practices for working around the Contractor's and/or Subcontractor's equipment (e.g., backhoes, bulldozers, excavators, drill rigs etc.) are as follows:

- Although the Contractor and Subcontractors are responsible for their equipment and safe operation of the SSF Site, TRC personnel are also responsible for their own safety.
- Subsurface work will not be initiated without first clearing underground utility services.
- Heavy equipment should not be operated within 20 feet of overhead wires. This distance may be increased if windy conditions are anticipated or if lines carry high voltage. The SSF Site should also be sufficiently clear to ensure the project staff can move around the heavy machinery safely.
- Care should be taken to avoid overhead wires when moving heavy equipment from location to location.
- Hard hats, safety boots, safety glasses, and high-visibility vests should be worn at all times in the vicinity of heavy equipment. Hearing protection is also recommended.
- The work site should be kept neat. This will prevent personnel from tripping and will allow for fast emergency exit from the SSF Site.
- Proper lighting must be provided when working at night.
- Construction activities should be discontinued during an electrical storm or severe weather conditions.
- The presence of combustible gases should be checked before igniting any open flame.
- Personnel shall stand upwind of any construction operation when not immediately involved in sampling/logging/observing activities.
- Personnel will not approach the edge of an unsecured trench/excavation closer than two feet.

6.3 Incident Reporting

In case of an accident, TRC personnel are to immediately report the incident to the Project Manager/Supervisor and/or SSHO, and follow the TRC incident reporting procedures (CP019: *Incident Response and Lessons Learned Program*) detailed in the TRC Health and Safety Management System (HSMS) provided in **Appendix B**.

TRC's incident reporting forms are also available in **Appendix B** and include:

- TRC Incident Notification Report
- TRC Motor Vehicle Incident Report
- TRC Safe Catch Report

All incidents and near misses are investigated in accordance with TRC's HSMS. The TRC Incident Notification Report is to be completed and submitted to the TRC ECR Safety Manager and

National Safety Director within 24 hours following any incident.

Contractor personnel are to report incidents to their SSHO who are then required to report the incident to the TRC SSO, TRC Alternate SSO, or TRC Project Manager immediately. Some important information to include when reporting an incident are:

- A description of the event (including date and time).
- Details regarding personal injury and property damage, if any.
- Whether emergency services were notified (i.e., medical facilities, fire department, police department) and the basis for that decision. Including time and names of persons/agencies notified, and their response.
- Clarify the need for and type of TRC support.
- Immediate corrective action(s) taken.

7.0 Personal Protective Equipment (PPE)

7.1 Equipment Selection

PPE will be donned when work activities may result in exposure to physical or chemical hazards beyond acceptable limits, and when such exposure can be mitigated through appropriate PPE. The selection of PPE will be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the SSF Site, the task-specific conditions and duration, and the hazards and potential hazards identified at the SSF Site.

Equipment designed to protect the body against contact with known or suspected chemical hazards is grouped into four categories according to the degree of protection afforded. These categories, designated A through D, are consistent with United States Environmental Protection Agency (USEPA) Level of Protection designation, and include:

- **Level A:** Should be selected when the highest level of respiratory, skin and eye protection is needed.
- **Level B:** Should be selected when the highest level of respiratory protection is needed, but a lesser level of skin protection is required. Level B protection is the minimum level recommended on initial site entries until the hazards have been further defined by on-site studies. Level B (or Level A) is also necessary for oxygen-deficient atmospheres.
- **Level C:** Should be selected when the types of airborne substances are known, the concentrations have been measured and the criteria for using air-purifying respirators are met. In atmospheres where no airborne contaminants are present, Level C provides dermal protection only.
- **Level D:** Should not be worn on any site with elevated respiratory or skin hazards. This is generally a work uniform providing minimal protection.

OSHA requires the use of certain PPE under conditions where an immediate danger to life and health (IDLH) may be present. Specifically, OSHA 29 CFR 1910.120(g)(3)(iii) requires use of a positive pressure self-contained breathing apparatus, or positive pressure air-line respirator equipped with an escape air supply when chemical exposure levels present a substantial possibility of immediate serious injury, illness, or death, or impair the ability to escape. Similarly, OSHA 29 CFR 1910.120(g)(3)(iv) requires donning totally encapsulating chemical protective suits (with a protection level equivalent to Level A protection) in conditions where skin absorption of a hazardous substance may result in a substantial possibility of immediate serious illness, injury, or death, or impair the ability to escape.

In situations where the types of chemicals, concentrations, and possibilities of contact are unknown, the appropriate level of protection must be selected based on professional experience and judgment until the hazards can be further characterized. The individual components of clothing and equipment must be assembled into a full protective ensemble to protect the worker from site-specific hazards, while at the same time minimizing hazards and drawbacks of the personal protective gear itself. Ensemble components are detailed below for levels A/B, C, and D protection.

7.2 Protection Ensembles

7.2.1 Level A/B Protection Ensemble

Level A/B ensembles include similar respiratory protection; however, Level A provides a higher degree of dermal protection than Level B. Use of Level A over Level B is determined by comparing

the concentrations of identified substances in the air with skin toxicity data and assessing the effect of the substance (by its measured air concentrations or splash potential) on the small area of the head and neck unprotected by Level B clothing.

The recommended PPE for level A/B is:

- Pressure-demand, full-face piece self-contained breathing apparatus (MSHA/NIOSH approved) or pressure-demand supplied-air respirator with escape self-contained breathing apparatus (SCBA).
- Chemical-resistant clothing. For Level A, clothing consists of totally encapsulating chemical resistant suit. Level B incorporates hooded one-or two-piece chemical splash suit.
- Inner and outer chemical resistant gloves.
- Chemical-resistant safety boots/shoes.
- Hardhat.

7.2.2 Level C Protection Ensemble

Level C protection is distinguished from Level B by the equipment used to protect the respiratory system, assuming the same type of chemical-resistant clothing is used. The main selection criterion for Level C is that conditions permit wearing an air-purifying device. The device (when required) must be an air-purifying respirator (MSHA/NIOSH approved) equipped with filter cartridges. Cartridges must be able to remove the substances encountered. Respiratory protection will be used only with proper fitting, training, and the approval of a qualified individual. In addition, an air-purifying respirator can be used only if: oxygen content of the atmosphere is at least 19.5% in volume; substances are identified, and concentrations measured; substances have adequate warning properties; the individual passes a qualitative fit-test for the mask; and an appropriate cartridge/canister is used, and its service limit concentration is not exceeded.

Recommended PPE for Level C conditions include:

- Full-face piece, air-purifying respirator equipped with MSHA and NIOSH approved organic vapor/acid gas/dust/mist combination cartridges or as designated by the SSHO.
- Chemical-resistant clothing (hooded, one or two-piece chemical splash suit or disposable chemical-resistant one-piece suit).
- Inner and outer chemical-resistant gloves.
- Chemical-resistant safety boots/shoes.
- Hardhat.

An air-monitoring program is part of all response operations when atmospheric contamination is known or suspected. It is particularly important that the air be monitored thoroughly when personnel are wearing air-purifying respirators. Continual surveillance using direct-reading instruments is needed to detect any changes in air quality necessitating a higher level of respiratory protection.

7.2.3 Level D Protection Ensemble

As indicated above, Level D protection is primarily a work uniform. It can be worn in areas where only boots can be contaminated, where there are no respirable hazards and where the atmosphere contains at least 19.5% oxygen.

Recommended PPE for Level D includes:

- Coveralls
- Safety boots/shoes
- Safety glasses or chemical splash goggles
- Hardhat
- High visibility vest
- Optional gloves; escape mask; face shield; over boots

7.2.4 Recommended Level of Protection for Site Tasks

Based on current information regarding both the contaminants suspected of being present at the SSF Site and the various tasks that are included with anticipated field activities (see Section 1.7), the minimum required levels of protection for these tasks shall be as identified in **Table 3**.

8.0 Exposure Monitoring

Based on the results of historic sample analysis and the nature of potential work activities at the SSF Site, the possibility exists that organic vapors and/or particulate matter less than 10 microns in size (PM-10), or respirable particulates, may be released into the air creating an exposure pathway. For all intrusive activities performed at the SSF Site, real-time air monitoring for organic vapor levels within the **On-Site Work Zone,** along with real-time air monitoring for organic vapor and respirable particulates at the upwind perimeter of the work area or **Upwind Community Air** location, and at the downwind perimeter of the work area or **Downwind Community Air** location, will be required. Unlike on-site work zone air monitoring, community air monitoring is not intended for use in establishing action levels for worker respiratory protection, rather, it is intended to provide a baseline monitoring evaluation of potential off-site upwind sources, as well as a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with subject work activities) from potential airborne contaminant releases directly related to intrusive SSF Site activities.

Periodic monitoring for organic vapors will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing wells. The SSHO (and/or NYSDEC) may require continuous monitoring during non-intrusive activities performed proximate to sensitive off-site community receptors where potential exposure is reasonably expected. *Continuous monitoring* will be required during all ground-intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground-intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, the installation of soil borings or monitoring wells, advancement of test pits, breaching the mechanical shop/office building floor, and construction excavation for new buildings.

Readings from air monitoring field equipment will be recorded and maintained on the appropriate Project Field forms, the Project Field Book, or electronically in a readily accessible cloud storage location. These air monitoring records will be made part of the permanent field record for each project. Air monitoring instruments will be calibrated in accordance with manufacturer's recommendations before use and the calibration results will be documented. Air monitoring instruments will also be protected from surface contamination during use.

On-site work zone, upwind, and downwind community air monitoring procedures and action levels are discussed in the following sections and presented in the SMP (March 2012). Pertinent emergency response information including the telephone number of the Fire Department is included in the ERP (**Appendix A**).

8.1 On-Site Work Zone

On-site work zone air monitoring will either be performed periodically or continuously as determined by the SSHO based on the planned activity and/or type of environmental media (i.e., soil, sediment, groundwater, air) encountered and in accordance with Community Air Monitoring Plan (CAMP) procedures detailed in the SMP (*Appendix F; Soils Management Plan*) and the NYSDOH Generic CAMP provided in **Appendix C**.

8.1.1 Monitoring

TRC personnel will utilize a handheld photoionization detector (PID) equipped with a 10.6 eV lamp (or approved other) to continuously monitor on-site work zone air for organic vapors during all intrusive activities (and designated non-intrusive activities) and only periodically during non-intrusive activities. Additional monitoring instruments, including an oxygen meter, carbon

monoxide meter, combustible gas meter, hydrogen sulfide meter, and/or a particulate meter, may be added as situations or conditions warrant. In the absence of such monitoring, fugitive dust migration will be visually assessed during all intrusive work activities and appropriate respiratory protection for particulates shall be donned. Meter readings will be recorded and available for NYSDEC and NYSDOH personnel review.

8.1.2 Action Levels

During project-specific activities, ambient breathing zone concentrations within the On-Site Work Zone may at times exceed the permissible exposure limits (PELs) established by OSHA for the individual COPCs (see **Table 1**), in which case respiratory protection will be required, and along with dermal protection, may be modified (upgraded or downgraded) by the SSHO. PPE can remain at Level D if breathing zone VOC concentrations are less than 5 ppm. Personnel are required to evacuate the Site when breathing zone VOC readings exceed 25 ppm. Sustained (greater than 60 seconds) readings obtained in the on-site breathing zone may be interpreted (regarding other site conditions) as follows for TRC personnel:

Organic Vapor:

- Background concentrations should be established at the beginning of each workday. It may be necessary to re-establish background concentration as ambient conditions may vary throughout the day.
- Breathing zone concentrations of unidentified vapors or gases yielding sustained (> 60 seconds) readings from 0 to 1 ppm above background on the PID - continue operations under Level D.
- Breathing zone concentrations of unidentified vapors or gases yielding sustained (> 60 seconds) readings from > 1 ppm to 5 ppm above background on the PID (vapors not suspected of containing high levels of chemicals toxic to the skin) - continue operations under Level D.
- Breathing zone concentrations of unidentified vapors or gases yielding readings < 5 ppm above background on the PID (vapors not suspected of containing high levels of chemicals toxic to the skin) – ventilate the work zone and continue operations under Level D.
- Breathing zone concentrations of unidentified vapors or gases yielding sustained (> 60 seconds) readings of ≥ 5 ppm to ≤ 25 ppm above background on the PID – ventilate the work zone and re-evaluate and alter (if possible) construction methods to achieve lower vapor concentrations until PID readings are < 5 ppm. If < 5 ppm cannot be achieved, continue operations under Level C. *Measured air concentrations of known organic vapors will be reduced by the respirator to one half of the PEL or lower, and the individual and combined compound concentrations shall be within the service limit of the respirator cartridge.*
- Sustained (> 60 seconds) breathing zone concentrations of unidentified vapors or gases above 25 ppm on the PID – ventilate the work zone, discontinue operations, and exit the work zone immediately. Consult with the SSHO, Project Manager, and ECR Safety Manager.

Particulates (PM-10):

If used, the particulate meter will monitor on-site respirable dust concentrations during all intrusive activities and during handling of SSF Site soil/fill. Action levels based on the instrument readings shall be as follows:

- Less than 50 mg/m^3 - continue field operations.
- 50-150 mg/m^3 - don dust/particulate mask or equivalent

- Greater than 150 mg/m^3 - don dust/particulate mask or equivalent. Initiate engineering controls to reduce respirable dust concentration (i.e., wetting of excavated soils or tools at discretion of SSHO).

As previously stated, additional instruments that monitor for oxygen, carbon monoxide, combustible gas, and/or hydrogen sulfide, may be added as situations or conditions warrant on a project-by-project basis. The following Action Levels will apply when monitoring these airborne contaminants.

Oxygen

- 20.9% oxygen – oxygen level normal; continue field operations.
- < 19.5% oxygen – oxygen deficient; discontinue field operations and evacuate the area.
- > 23.5% oxygen – oxygen enriched; discontinue field operations and evacuate the area.

Carbon Monoxide (CO)

- < 12.5 ppm – Inspect exhaust system for leaks or other sources of CO. Monitor initially and every 15 minutes during use of CO-generating equipment.
- 12.5 to 25 ppm – Ventilate area. Monitor continuously and record measurements. Contact SSHO and PM.
- > 25 ppm – Discontinue field operations and evacuate the area. The area will require additional ventilation.

Combustible Gases

- < 4% LEL – Continue field operations with normal monitoring.
- 4% to 20% LEL – Discontinue field operations until levels dissipate to < 4% LEL.
- > 20% LEL - Potential explosion hazard. Halt all site activities, research source of release, aerate work area, suppress source. Contact SSHO and PM.

Hydrogen Sulfide

- < 10 ppm – Continue field operations with normal monitoring.
- ≥ 10 ppm – Discontinue field operations until levels dissipate to < 10 ppm; use mechanical ventilation if possible. Consult with SSHO and PM if unable to reduce concentrations below 10 ppm.

8.2 Community Air Monitoring

In addition to on-site monitoring within the work zone(s), monitoring at the upwind and downwind portion of the work area perimeter will be conducted. This will provide a real-time method for determination of vapor and/or particulate sources off-site and upwind of the project area as well as potential downwind releases to the surrounding community as a result of ground intrusive activities.

8.2.1 Monitoring

CAMP monitoring will be performed in general accordance with the NYSDOH Generic CAMP provided as **Appendix C** and the procedures detailed in the SMP (*Appendix F; Soils Management*

Plan). Unless discussed and approved otherwise by the NYSDEC and during all intrusive activities performed at the SSF Site, organic vapor and respirable particulates (PM-10) will be monitored on a *continuous basis* at the upwind and downwind perimeter of the exclusion zone. Upwind monitoring will establish background conditions of potential off-site upwind sources during intrusive activities, particularly if wind direction changes. Organic vapor will be measured utilizing a PID and the respirable particulates will be measured utilizing a PM-10 meter.

Upwind and downwind air monitoring meters (i.e., PID and PM-10) will be capable of datalogging instantaneous readings as well as calculating 15-minute running averages. Each monitoring station will also be equipped with remote telemetry which will allow the electronic transmission (i.e., email and/or text) of collected data, calculated 15-minute running averages, and any exceedance of the action level(s) to the appropriate field personnel for real-time accuracy. Measured readings will be recorded and available for NYSDEC and NYSDOH personnel review upon request. In addition, fugitive dust migration will be visually assessed during all intrusive work activities and recorded in the Project Field Book.

8.2.2 Action Levels

The following criteria shall be adhered to for the protection of downwind receptors consistent with NYSDOH requirements (**Appendix C**):

Organic Vapor:

- If the sustained ambient air concentration of organic vapors at the downwind perimeter of the exclusion zone exceeds 5 ppm above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the sustained organic vapor decreases below 5 ppm over background, work activities can resume with continued monitoring.
- If the sustained ambient air concentration of organic vapors at the downwind perimeter of the exclusion zone persists at levels greater than 5 ppm over background but less than 25 ppm for the 15-minute average, activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. Following these steps, work activities can resume provided that: the organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less, but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the sustained organic vapor level is above 25 ppm at the perimeter of the exclusion zone for the 15-minute average, the SSHO must be notified, and work activities shut down.

Particulates (PM-10)

- Fugitive dust migration will be visually assessed during all work activities.
- If the sustained downwind PM-10 particulate level is 100 micrograms per cubic meter (ug/m3) greater than the background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that the downwind PM-10 particulate levels do not exceed 150 ug/m3 above the upwind level and that visible dust is not migrating from the work area.
- If, after implementation of dust suppression techniques downwind PM-10 levels are greater than 150 ug/m3 above the upwind level, work activities must be stopped, and dust suppression controls re-evaluated. Work can resume provided that supplemental dust suppression measures and/or other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 ug/m3 of the upwind level and in preventing visible dust migration.

9.0 Spill Release / Response

This section of the HASP describes the potential for, and procedures related to, spills or releases of known or suspected petroleum and/or hazardous substances on the SSF Site. The purpose of this section of the HASP is to plan appropriate response, control, countermeasures, and reporting, consistent with OSHA requirements in 29 CFR 1910.120(b)(4)(ii)(J) and (j)(1)(viii). The spill containment program addresses the following elements:

- Potential hazardous material spills and available controls.
- Initial notification and evaluation.
- Spill response.
- Post-spill evaluation.

9.1 Potential Spills and Available Controls

An evaluation was conducted to determine the potential for hazardous material and oil/petroleum spills at this SSF Site. For this evaluation, hazardous materials posing a significant spill potential are considered to be:

- CERCLA Hazardous Substances as identified in 40 CFR Part 302, where such materials pose the potential for release in excess of their corresponding Reportable Quantity (RQ).
- Extremely Hazardous Substances as identified in 40 CFR Part 355, Appendix A, where such materials pose the potential for release in excess of their corresponding RQ.
- Hazardous Chemicals as defined under Section 311(e) of the Emergency Planning and Community Right-To-Know Act of 1986, where such chemicals are present or will be stored in excess of 10,000 lbs.
- Toxic Chemicals as defined in 40 CFR Part 372, where such chemicals are present or will be stored in excess of 10,000 lbs.
- Chemicals regulated under 6NYCRR Part 597, where such materials pose the potential for release in excess of their corresponding RQ.

Oil/petroleum products are considered to pose a significant spill potential whenever the following situations occur:

- The potential for a “harmful quantity” of oil (including petroleum and non-petroleum-based fuels and lubricants) to reach navigable waters of the U.S. exists (40 CFR Part 112.4). Harmful quantities are considered by USEPA to be volumes that could form a visible sheen on the water or violate applicable water quality standards.
- The potential for any amount of petroleum to reach any waters of NY State, including groundwater, exists. Petroleum, as defined by NY State in 6NYCRR Part 613, is a petroleum-based heat source, energy source, or engine lubricant/ maintenance fluid.
- The potential for any release, to soil or water, of petroleum from a bulk storage facility regulated under 6NYCRR Part 613. A regulated petroleum storage facility is defined by NY State as a site having stationary tank(s) and intra-facility piping, fixtures, and related equipment with an aggregate storage volume of 1,100 gallons or greater.

The evaluation indicates that, based on site history and remediation records, a hazardous material spill and/or a petroleum product spill is not likely to occur during various environmental efforts.

However, the potential for petroleum product spill may exist if containerized, or to-be-containerized, petroleum products are released either by accident or container failure.

9.2 Initial Spill Notification & Evaluation

Any worker who discovers a hazardous substance or oil/petroleum spill will immediately notify the Project Manager and SSHO. The worker will, to the best of his/her ability, report the material involved, the location of the spill, the estimated quantity of material spilled, the direction/flow of the spill material, related fire/explosion incidents, if any, and any associated injuries. The ERP presented as **Appendix A** of this HASP will immediately be implemented if a release occurs.

Following the initial report of a spill, the Project Manager will make an evaluation as to whether the release exceeds the RQ. **If the RQ is exceeded, the Project Manager will notify the site owner and NYSDEC at 1-800-457-7362 within 2 hours of spill discovery.** The Project Manager will also determine what additional agencies (e.g., USEPA) are to be contacted regarding the release and will follow up with written reports as required by the applicable regulations.

9.3 Spill Response

For all spill situations, the following general response guidelines will apply:

- Only those personnel involved in overseeing or performing containment operations will be allowed within the spill area. If necessary, the area will be roped, ribboned, or otherwise blocked off to prevent unauthorized access.
- Appropriate PPE, as specified by the SSHO, will be donned before entering the spill area.
- Ignition points will be extinguished/removed if fire or explosion hazards exist.
- Surrounding reactive materials will be removed.
- Drains or drainage in the spill area will be blocked to prevent inflow of spilled materials or applied materials.

For minor spills, the Contractor (and/or Subcontractor) will maintain a spill response kit in the Field Office or other readily accessible storage location. The kit will consist of, at a minimum, a 50 lb. bag of “speedy dry” granular absorbent material, absorbent pads, shovels, empty 5-gallon pails and an empty open-top 55-gallon drum. Spilled materials will be absorbed and shoveled into a 55-gallon drum for proper disposal (NYSDEC approval will be secured for on-site treatment of the impacted soils/absorbent materials, if applicable). Impacted soil will be hand-excavated to the point that no visible signs of contamination remain and will be drummed with the absorbent.

In the event of a major release or a release that threatens surface water, a spill response Contractor (or Subcontractor) will be called to the SSF Site. The spill responder may use heavy equipment (e.g., excavator, backhoe, etc.) to berm the soils surrounding the spill site or create diversion trenching to mitigate overland migration or release to navigable waters. Where feasible, pumps will be used to transfer free liquid to storage containers. Spill control/cleanup contractors in the Western New York area that may be contacted for assistance include:

- Clean Harbors Environmental: (716) 855-2212
- Nature’s Way Environmental: (716) 937-6527
- Environmental Products and Services of Vermont, Inc.: (800) 577-4557
- The Environmental Service Group Inc. (NY): (716) 695-6720

9.4 Post-Spill Evaluation

If a reportable quantity of hazardous material or oil/petroleum is spilled as determined by the Project Manager, a written report will be prepared as indicated in Section 9.2. The report will identify the root cause of the spill, type and amount of material released, date/time of release, response actions, agencies notified and/or involved in cleanup, and procedures to be implemented to avoid repeat incidents. In addition, all re-useable spill cleanup and containment materials will be decontaminated, and spill kit supplies/disposable items will be replenished.

10.0 Heat / Cold Stress Monitoring

Since some of the work activities at the SSF Site may be scheduled for both the summer and winter months, measures will be taken to minimize heat/cold stress for TRC employees. The SSHO and/or his or her designee will be responsible for monitoring TRC field personnel for symptoms of heat/cold stress.

10.1 Heat Stress Monitoring

Personal protective equipment (PPE) may place an employee at risk of developing heat stress, a common and potentially serious illness often encountered at construction, landfill, waste disposal, industrial, or other unsheltered sites during the summer months. The potential for heat stress is dependent on several factors, including environmental conditions, clothing, workload, physical conditioning, and age. PPE may severely reduce the body's normal ability to maintain temperature equilibrium (via evaporation and convection) and require increased energy expenditure due to its bulk and weight.

10.1.1 Heat-Related Illness & Symptoms

The following are heat-related illnesses and symptoms that may be observed.

- Heat rash may result from continuous exposure to heat or humid air.
- Heat cramps are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include muscle spasms, pain in the hands, feet, and abdomen.
- Heat exhaustion occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include: pale, cool, moist skin; heavy sweating; dizziness; nausea; fainting.
- Heat stroke is the most serious form of heat stress. Temperature regulation fails, and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms are: red, hot, usually dry skin; lack of or reduced perspiration; nausea; dizziness and confusion; strong, rapid pulse; coma.

The monitoring of personnel wearing protective clothing should commence when the ambient temperature is 70°F or above. For monitoring the body's recuperative ability to excess heat, one or more of the following techniques should be used as a screening mechanism.

- Heart rate may be measured by the radial pulse for 30 seconds as early as possible in the resting period. The rate at the beginning of the rest period should not exceed 100 beats per minute. If the rate is higher, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest periods stays the same, If the pulse rate is 100 beats per minute at the beginning of the nest rest period, the following work cycle should be further shortened by 33%.
- Body temperature may be measured orally with a clinical thermometer as early as possible in the resting period. Oral temperature at the beginning of the rest period should not exceed 99.6°Ft. If it does, the next work period should be shortened by 10 minutes (or 33%), while the length of the rest period remains the same. However, if the oral temperature exceeds 99.6°F at the beginning of the next period, the work cycle may be further shortened by 33%. The oral temperature should be measured at the end of the rest period to make sure that it has dropped below 99.6°F. No TRC employee will be permitted to continue wearing semi-permeable or impermeable garments when his/her oral temperature exceeds 100.6°F.

10.1.2 Mitigation

Proper training and preventive measures will mitigate the potential for serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat related illness. To avoid heat stress, the following steps should be taken:

- Adjust work schedules.
- Modify work/rest schedules according to monitoring requirements.
- Mandate work slowdowns as needed.
- Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided.
- Provide shelter (air-conditioned, if possible) or shaded areas to protect personnel during rest periods.
- Maintain worker's body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must approximately equal the amount of water lost in sweat (i.e., eight fluid ounces must be ingested for approximately every 1 pound of weight lost). The normal thirst mechanism is not sensitive enough to ensure that enough water will be consumed to replace lost perspiration. When heavy sweating occurs, workers should be encouraged to drink more.
- Train workers to recognize the symptoms of heat related illness.

10.2 Cold Stress Monitoring

PPE may place an employee at risk of developing cold stress, a common and potentially serious illness often encountered at construction, landfill, waste disposal, industrial, or other unsheltered sites during the winter months. The potential for cold stress is dependent on several factors, including environmental conditions, clothing, workload, physical conditioning, and age. Lack of warm PPE may severely reduce the body's normal ability to maintain temperature equilibrium.

10.2.1 Cold-Related Illness & Symptoms

Exposure to cold conditions may result in frostbite or hypothermia, each of which progresses in stages as shown below.

- **Frostbite** occurs when body tissue (usually on the extremities) begins to freeze. The three states of frostbite are:
    1) **Frost nip** - This is the first stage of the freezing process. It is characterized by a whitened area of skin, along with a slight burning or painful sensation. Treatment consists of removing the victim from the cold conditions, removal of boots and gloves, soaking the injured part in warm water (102 to 108°F) and drinking a warm beverage. Do not rub skin to generate friction/ heat.
    2) **Superficial Frostbite** - This is the second stage of the freezing process. It is characterized by a whitish gray area of tissue, which will be firm to the touch but will yield little pain. The treatment is identical for Frost nip.
    3) **Deep Frostbite** - In this final stage of the freezing process the affected tissue will be cold, numb, and hard and will yield little to no pain. Treatment is identical to that for Frost nip.
- **Hypothermia** is a serious cold stress condition occurring when the body loses heat at a rate faster than it is produced. If untreated, hypothermia may be fatal. The stages of hypothermia may not be clearly defined or visible at first, but generally include:
    1) Shivering

2) Apathy (i.e., a change to an indifferent or uncaring mood)
3) Unconsciousness
4) Bodily freezing

10.2.2 Mitigation

Employees exhibiting signs of hypothermia should be treated by medical professionals. Steps that can be taken while awaiting help include:

1) Remove the victim from the cold environment and remove wet or frozen clothing. (Do this carefully as frostbite may have started.)
2) Perform active re-warming with hot liquids for drinking (Note: do not give the victim any liquid containing alcohol or caffeine) and a warm water bath (102 to 108 degrees Fahrenheit).
3) Perform passive re-warming with a blanket or jacket wrapped around the victim.

In any potential cold stress situation, it is the responsibility of the SSHO to encourage the following:

- Education of workers to recognize the symptoms of frostbite and hypothermia.
- Workers should dress warmly, with more layers of thin clothing as opposed to one thick layer.
- Personnel should remain active and keep moving.
- Personnel should be allowed to take shelter in a heated area, as necessary.
- Personnel should drink warm liquids (no caffeine or alcohol if hypothermia has set in).
- For monitoring the body's recuperation from excess cold, oral temperature recordings should occur:
- At the Site Safety Technician's discretion when suspicion is based on changes in a worker's performance or mental status.
- At a worker's request.
- As a screening measure, two times per shift, under unusually hazardous conditions (e.g., wind chill less than 20°F or wind chill less than 30°F with precipitation).
- As a screening measure, whenever anyone worker on-site develops hypothermia.

Any person developing moderate hypothermia (a core body temperature of 92°F) will not be allowed to return to work for 48 hours without the recommendation of a qualified medical doctor.

11.0 Work Zones & Site Control

Work zones around the areas designated for construction activities will be established daily and communicated to all employees and other site users by the SSHO. It shall be each Contractor and Subcontractor's SSHO's responsibility to ensure that all site workers are aware of the work zone boundaries and to enforce proper procedures in each area. The zones will include:

- **Exclusion Zone ("Hot Zone")** - The area where contaminated materials may be exposed, excavated, or handled and all areas where contaminated equipment or personnel may travel. Flagging tape will delineate the zone. All personnel entering the Exclusion Zone must wear the prescribed level of personal protective equipment identified in Section 7.
- **Contamination Reduction Zone** - The zone where decontamination of personnel and equipment takes place. Any potentially contaminated clothing, equipment and samples must remain in the Contamination Reduction Zone until decontaminated.
- **Support Zone** - The part of the site that is considered non-contaminated or "clean." Support equipment will be located in this zone, and personnel may wear normal work clothes within this zone.

In the absence of other task-specific work zone boundaries established by the SSHO, the following boundaries will apply to all investigation and construction activities involving disruption or handling of SSF Site soils or groundwater:

- **Exclusion Zone:** 50-foot radius from the outer limit of the sampling/construction activity.
- **Contaminant Reduction Zone:** 100-foot radius from the outer limit of the sampling/construction activity.
- **Support Zone:** Areas outside the Contaminant Reduction Zone.

Access of non-essential personnel to the Exclusion and Contamination Reduction Zones will be strictly controlled by the SSHO. Only personnel who are essential to the completion of the task will be allowed access to these areas and only if they are wearing the prescribed level of protection. Entrance of all personnel must be approved by the SSHO.

The SSHO will maintain a Health and Safety Logbook containing the names of TRC workers and their level of protection. The zone boundaries may be changed by the SSHO as environmental conditions warrant, and to respond to the necessary changes in work locations on-site.

Appropriate security measures will be established in coordination with the site owner/operator and communicated to site personnel. The objective of these measures is to (1) protect the public from potential exposure to physical/chemical hazards; (2) avoid public interference with personnel and safe work practices; and (3) prevent theft or vandalism of equipment at the site.

12.0 Decontamination

Decontamination is the process of removing or neutralizing contaminants that have accumulated on personnel and equipment that is critical to the health and safety of field personnel at a site with remaining contamination (e.g., brownfield, hazardous waste, landfill sites). Decontamination protects workers from hazardous substances that may contaminate and eventually permeate the protective clothing, respiratory equipment, tools, vehicles, and other equipment used on site; it protects site personnel by minimizing the transfer of harmful materials into clean areas; it helps prevent mixing of incompatible chemicals; and it protects the community by preventing uncontrolled transportation of contaminants from the site.

12.1 Decontamination for TRC Employees

The degree of decontamination required is a function of a particular task and the environment within which it occurs. The following decontamination procedure will remain flexible, thereby allowing the decontamination crew to respond appropriately to the changing environmental conditions that may arise at the SSF Site. All TRC personnel on-site shall follow the procedure below, or the Contractor's procedure (if applicable), whichever is more stringent.

- **Station 1 - Equipment Drop:** Deposit visibly contaminated (if any) re-useable equipment used in the contamination reduction and exclusion zones (tools, containers, monitoring instruments, radios, clipboards, etc.) on plastic sheeting.
- **Station 2 - Boots and Gloves Wash and Rinse:** Scrub outer boots and outer gloves. Deposit tape and gloves in waste disposal container.
- **Station 3 - Tape, Outer Boot and Glove Removal:** Remove tape, outer boots, and gloves. Deposit tape and gloves in waste disposal container.
- **Station 4 - Canister or Mask Change:** If a worker leaves the exclusion zone to change canister (or mask), this is the last step in the decontamination procedure. Worker's canister is exchanged, new outer gloves and boot cover donned, and worker returns to duty.
- **Station 5 - Outer Garment/Face Piece Removal**: Protective suit removed and deposited in separate container provided by Contractor or Subcontractor. Face piece or goggles are removed if used. Avoid touching your face with your fingers. Face piece and/or goggles deposited on plastic sheet. Hard hat removed and placed on plastic sheet.
- **Station 6 - Inner Glove Removal:** Inner gloves are the last personal protective equipment to be removed. Avoid touching the outside of the gloves with bare fingers. Dispose of these gloves in a waste disposal container.

Following PPE removal, personnel shall wash hands, face, and forearms with absorbent wipes. If field activities proceed for duration of 6 consecutive months or longer, shower facilities will be provided for worker use in accordance with OSHA 29 CFR 1910.120(n).

12.2 Decontamination for Medical Emergencies

In the event of a minor, non-life-threatening injury, personnel should follow the decontamination procedures as defined and then administer first-aid.

In the event of a major injury or other serious medical concern (e.g., heat stroke), immediate first aid is to be administered, and the victim transported to the hospital in lieu of further decontamination efforts unless exposure to a SSF Site contaminant would be considered "Immediately Dangerous to Life or Health."

12.3 Decontamination of Field Equipment

The Contractor and/or Subcontractor will conduct decontamination of heavy equipment in the Contamination Reduction Zone, in accordance with its approved HASP. As a minimum, this will include manually removing heavy soil contamination, followed by steam cleaning on an impermeable pad.

TRC personnel will conduct decontamination of all tools used for sample collection purposes. It is expected that all tools will be constructed of non-porous, non-absorbent materials (i.e., metal), which will aid in the decontamination effort. Any tool or part of a tool made of porous, absorbent material (i.e., wood) will be placed into suitable containers and prepared for disposal.

Decontamination of non-dedicated equipment such as bailers, split-spoons, Shelby tubes, submersible pumps, spatula knives, spoons, shovels, and other similar tools used for environmental sampling and/or examination shall be as follows:

- Disassemble the equipment.
- Potable-quality water wash to remove all visible foreign matter.
- Wash with non-phosphate detergent and potable-quality water.
- Rinse all parts with potable-quality water.
- Rinse all parts with deionized water demonstrated analyte-free, such as distilled water.
- Allow equipment to air dry.
- Store in a clean area or wrap in aluminum foil (shiny side out) or new plastic sheeting as necessary to ensure cleanliness.

13.0 Confined Space Entry

OSHA 29 CFR 1910.146 identifies a confined space as a space that is large enough and so configured that an employee can physically enter and do assigned work; has limited or restricted means for entry and exit; and not intended for continuous employee occupancy. Confined spaces include, but are not limited to, trenches, storage tanks, process vessels, pits, sewers, tunnels, underground utility vaults, pipelines, sumps, wells, and some excavations.

Confined space entry by TRC employees is not anticipated to be necessary to complete typical environmental activities identified in Section 1.7. If the scope of work changes or confined space entry appears necessary, the Project Manager will be consulted to determine if feasible engineering alternatives to confined space entry can be implemented. If confined space entry by TRC employees cannot be avoided through reasonable engineering measures, task-specific confined space entry procedures will be developed, and a confined-space entry permit will be issued through TRC's ECR Safety Manager. **TRC employees shall not enter a confined space without these procedures and permits in place.**

14.0 Fire Prevention & Protection

Recommended practices and standards of the National Fire Protection Association (NFPA) and other applicable regulations will be followed in the development and application of project-specific Fire Protection Programs. When required by regulatory authorities, the Project Manager will prepare and submit a project-specific Fire Protection Plan for the approval of the contracting officers, authorized representative, or other designated official. Essential considerations for the Fire Protection Plan will include:

- Proper site preparation and safe storage of combustible and flammable materials.
- Availability and coordination with private and public fire authorities.
- Adequate job-site fire protection and inspections for fire prevention.
- Adequate indoctrination and training of employees.

14.1 Equipment & Requirements

Fire extinguishers will be provided by each Contractor and/or Subcontractor and are required for all heavy equipment and in each field trailer. Fire extinguishers will be inspected, serviced, and maintained in accordance with the manufacturer's instructions. At a minimum, all extinguishers shall be checked monthly, weighed semi-annually, and recharged if necessary. Recharge or replacement shall be mandatory immediately after each use.

14.2 Flammable & Combustible Substances

All storage, handling, or use of flammable and combustible substances will be under the supervision of qualified persons. All tanks, containers, and pumping equipment, whether portable or stationary, used for the storage and handling of flammable and combustible liquids, will meet the recommendations of the NFPA.

14.3 Hot Work

If the scope of work necessitates welding or blowtorch operation, the hot work permit presented in **Appendix D** will be completed by the SSHO and reviewed/issued by the Project Manager.

15.0 Emergency Response Plan (ERP)

The TRC SSHO and/or Project Manager/Supervisor (depending on which is present) will have controlling authority during an emergency. In the SSHO's absence, the Assistant SSHO will be in charge.

In accordance with OSHA 29 CFR Part 1910, an ERP is attached to this HASP as **Appendix A**. The site-specific ERP has been prepared for various environmental activities that may be performed during routine SMP or redevelopment activities that are required or anticipated to be performed at the SSF Site. The ERP describes potential emergencies that may occur at the SSF Site; procedures for responding to those emergencies; roles and responsibilities during emergency response; and training all workers must receive in order to follow emergency procedures. The ERP also describes the provisions NPT has made to coordinate its emergency response planning with selected on-site redevelopment contractor's and subcontractor's as well as with off-site emergency response organizations.

The following sections are intended to support the ERP.

15.1 Evacuation Protocol

Evacuation protocol, routes, and assembly areas from the SSF Site will be established on a project-by-project basis by the SSHO and communicated to Field Personnel during the Tailgate Safety Meeting(s) prior to initiating work. In the event of an evacuation, personnel will meet at pre-established assembly areas and the TRC SSHO will conduct a "head count" to see that everyone is accounted for. The Contractor SSHO is responsible for being able to provide an accurate headcount of contractor personnel.

Primary assembly area: *(to be determined)*

Secondary assembly area: *(to be determined)*

15.2 First Aid & CPR

TRC employees and Contractors with current First Aid and CPR certification, and who are willing to provide First Aid and CPR, will be asked to identify themselves at Tailgate Safety Meetings. Their names will be documented on the Pre-job Safety Briefing.

15.3 Emergency Medical Assistance

A list of emergency medical assistance sources has been established as part of this HASP. **Appendix A (Section 5.0)** lists the names, locations, and telephone numbers of emergency response organizations in the vicinity of the SSF Site. The nearest hospital emergency room route map is presented within **Appendix A** as **Figure A-1**.

A vehicle should be available on-site during work activities to transport injured personnel to the identified emergency medical facilities, if necessary. Company vehicles are to be equipped with a fire extinguisher and first aid kit.

15.4 Emergency Procedures

In the event of an accident, injury, or other emergency, remember to:

- Stop work and REMAIN CALM.
- Move personnel to a safe location (evacuation plan).

- Call 911 or notify other emergency facilities, as necessary.
- Address medical emergencies and apply first aid, if necessary.
    - Move injured or exposed person(s) from immediate area only if it is safe to do so.
    - If serious injury or life-threatening condition exists, call 911. Clearly describe the location, injury, and conditions to the dispatcher. Designate a person to direct emergency equipment to the injured person.
- Contain physical hazards.
    - Act only if hazard is minimal and you are trained to deal with the situation. Otherwise evacuate and wait for emergency services to arrive.
- Notify SSHO and initiate incident reporting procedures.
    - See **Appendix A (Section 5.0)** for contact information. In the event the SSHO is not available, the order of notification should be 1) Assistant SSHO, 2) TRC Project Manager, 3) TRC Office Safety Coordinator, 4) TRC ECR Safety Manager, and 5) National Safety Director.
    - TRC SSHO is to notify TRC Project Manager/Supervisor as soon as reasonably possible.
- Do not resume work until the SSHO has determined it is safe to do so.

15.5 Non-Emergency Medical Assistance

If an injury does occur and it is not life threatening, then the employee or employee's supervisor/project manager should contact WorkCare® within the first hour after an injury. WorkCare® information is proved in **Appendix B**. This information will help assist the injured employee(s) by connecting them with instant access to a medically qualified professional to provide guidance on appropriate first aid measures and medications.

TABLES

TRC

TABLE 1

AIRBORNE TOXICITY DATA FOR CONSTITUENTS OF POTENTIAL CONCERN

Health & Safety Plan
NPT - 1747 Dale Road SSF Site
NYSDEC Site No. 915146
Buffalo, New York

Parameter	Synonyms	CAS No.	Concentration Limits [2]		
			PEL	TLV	IDLH
Polychlorinated Biphenyls (PCBs) [1] : mg/m [3]					
Aroclor 1016	*PCB-1016, Chlorodiphenyl (41% Cl)*	12674-11-2	1	1	5
Aroclor 1221	*PCB-1221, Chlorodiphenyl (21% Cl)*	11104-28-2	1	1	5
Aroclor 1232	*PCB-1232, Chlorodiphenyl (32% Cl)*	11141-16-5	1	1	5
Aroclor 1242	*PCB-1242, Chlorodiphenyl (42% Cl)*	53469-21-9	1	1	5
Aroclor 1248	*PCB-1248, Chlorodiphenyl (48% Cl)*	12672-29-6	1	1	5
Aroclor 1254	*PCB-1254, Chlorodiphenyl (54% Cl)*	11097-69-1	0.5	0.5	5
Aroclor 1260	*PCB-1260, Chlorodiphenyl (60% Cl)*	11096-82-5	1	1	5
Aroclor 1262	*PCB-1262, Chlorodiphenyl (62% Cl)*	37324-23-5	1	1	5
Aroclor 1268	*PCB-1268, Chlorodiphenyl (68% Cl)*	11100-14-4	1	1	5
PCBs, Total	*none*	1336-36-3	1	1	5
Volatile Organic Compounds (VOCs) [1] : ppm (mg/m [3])					
1,2-dichlorobenzene	*o-DCB, ortho-Dichlorobenzene, 1,2-DCB, o-Dichlorobenzol*	95-50-1	50 (300)	25 (150)	200
1,3-dichlorobenzene	*m-DCB, meta-Dichlorobenzene, 1,3-DCB, m-dichlorobenzene, meta-dichlorobenzene, m-phenylene dichloride, m-dichlorobenzol*	541-73-1	--	--	--
1,4-dichlorobenzene	*p-DCB, para-Dichlorobenzene, 1,4-DCB, Dichlorocide*	106-46-7	75 (450)	10 (60)	150
1,2,4-trichlorobenzene	*unsym-Trichlorobenzene, 1,2,4-TCB, 1,2,4-Trichlorobenzol*	120-82-1	--	5	--

Notes:

1. PCBs made in the United States were marketed under the trade name Aroclor and most are identified by a four-digit numbering code in which the first two digits indicate that the parent molecule is a biphenyl and for the 1200 series Aroclors the last two digits indicate the chlorine content by weight. For example, Aroclor 1260 has 60 percent chlorine.

2. Concentration limits as reported by NIOSH Pocket Guide to Chemical Hazards, February 2004 (NIOSH Publication No. 97-140, fourth printing with changes and updates.

Explanation:

IDLH = Immediately Dangerous to Life or Health.

TLV = Threshold Limit Value, established by American Conference of Industrial Hygienists (ACGIH), equals the maximum exposure concentration allowable for 8 hours/day @ 40 hours per week. TLVs are the amounts of chemicals in the air that almost all healthy adult workers are predicted to be able to tolerate without adverse effects. There are three types.

TLV-TWA (TLV-Time-Weighted Average) which is averaged over the normal 8-hour day/40-hour work week. (Most TLVs.)

TLV-C or Ceiling limits are the concentration that should not be exceeded during any part of the working exposure.

Unless the initials "STEL" or "C" appear in the Code column, the TLV value should be considered to be the 8-hour TLV-TWA.

PEL = Permissible Exposure Limit, established by OSHA, equals the maximium exposure conconcentration allowable for 8 hours per day at 40 hours per week

TABLE 2

POTENTIAL ROUTES OF EXPOSURE TO COPCs

Health & Safety Plan
NPT - 1747 Dale Road SSF Site
NYSDEC Site No. 915146
Buffalo, New York

Activity [1]	Inhalation of Vapors or Dust	Direct Contact with Environmental Media [2]
SMP Field Activities		
Environmental Media Sampling [2]	x	x
Monitoring Well Inspection	x	
Site & Final Cover Inspection	x	x
Non-SMP Field Activities		
Clearing & Grubbing	x	x
Building Materials Inventory & Management	x	x
Building Demolition	x	x
Excavation / Trenching	x	x
Soil Boring Advancement / Well Installation	x	x
Environmental Media Sampling [2]	x	x
Well Development		x
Waste Characterization Sampling	x	x
Management of Investigative-Derived Waste (IDW)	x	x

Notes:

1. Activity as described in Section 1.5 of the Health and Safety Plan.
2. Environmental media includes soil, soil/fill, free product, air, soil vapor, surface water, sediment, and groundwater.

TRC

TABLE 3

REQUIRED LEVELS OF PROTECTION FOR ASSIGNED TASKS

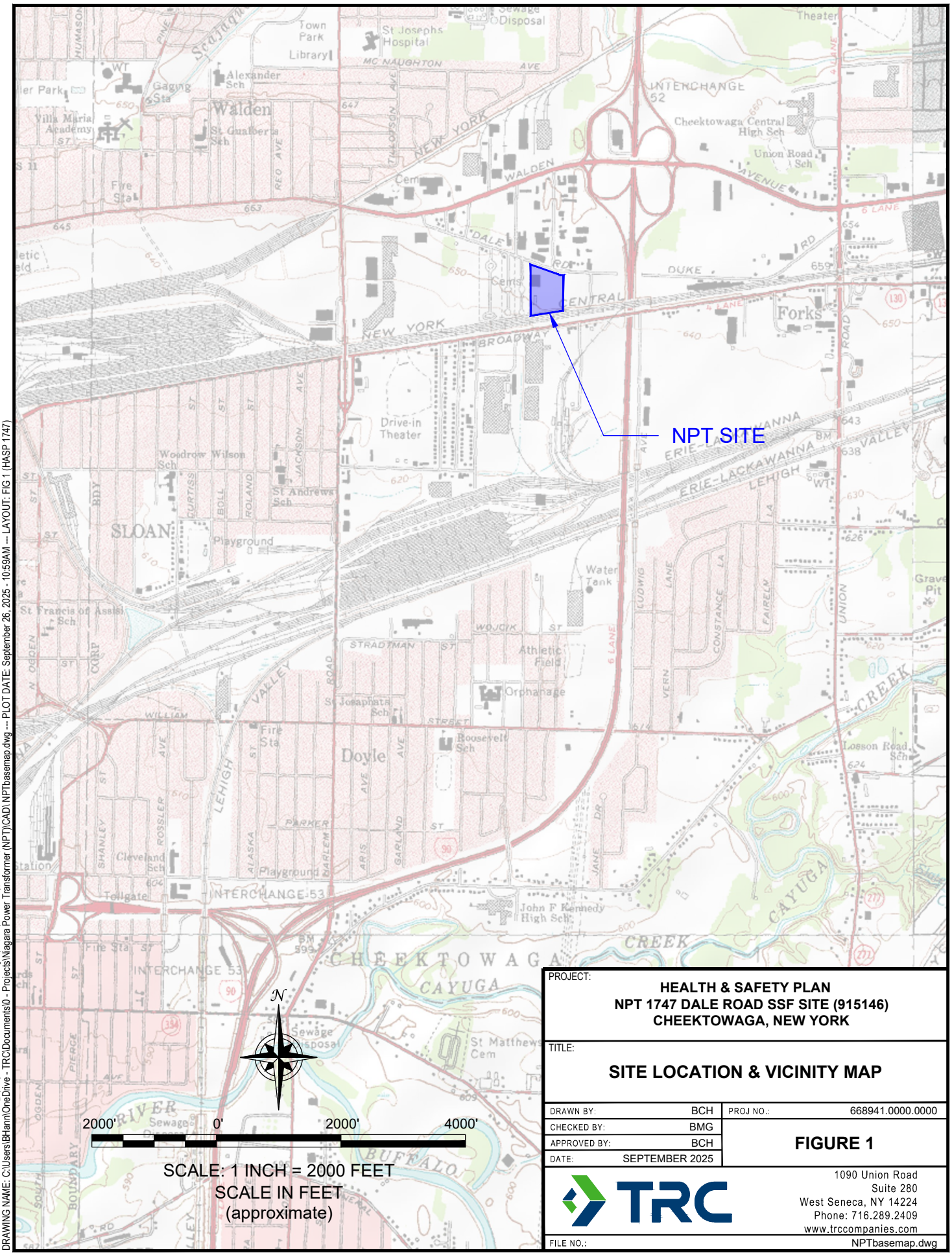
Health & Safety Plan
NPT - 1747 Dale Road SSF Site
NYSDEC Site No. 915146
Buffalo, New York

Activity [1]	Respiratory Protection [3]	Clothing	Gloves [4]	Boots [4, 5]	Other Required PPE/Modifications [4, 6]
SMP Field Activities					
Environmental Media Sampling [2]	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	N	outer: none inner: STSS	SGSS & High-Vis Vest
Monitoring Well Inspection	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	none	outer: none inner: STSS	SGSS & High-Vis Vest
Site & Final Cover Inspection	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	none	outer: none inner: STSS	SGSS & High-Vis Vest
Non-SMP Field Activities					
Clearing & Grubbing	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	none	outer: none inner: STSS	HH, SGSS, & High-Vis Vest
Building Materials Inventory & Management	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	none	outer: none inner: STSS	HH, SGSS, & High-Vis Vest
Building Demolition	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	none	outer: none inner: STSS	HH, SGSS, & High-Vis Vest
Excavation / Trenching	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	N	outer: none inner: STSS	HH, SGSS, & High-Vis Vest
Soil Boring Advancement / Well Installation	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	N	outer: none inner: STSS	HH, SGSS, & High-Vis Vest
Environmental Media Sampling [2]	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	N	outer: none inner: STSS	SGSS & High-Vis Vest
Well Development	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	N	outer: none inner: STSS	SGSS & High-Vis Vest
Waste Characterization Sampling	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	N	outer: none inner: STSS	SGSS & High-Vis Vest
Management of Investigative-Derived Waste (IDW)	Level D (upgrade to Level C if necessary)	Work Uniform or Tyvek	N	outer: none inner: STSS	SGSS & High-Vis Vest

Notes:

1. Activity as described in Section 1.5 of the Health and Safety Plan.
2. Environmental media includes soil, soil/fill, free product, air, soil vapor, surface water, sediment, and groundwater.
3. Respiratory equipment shall conform to guidelines presented in Section 7.0 of this HASP. The Level C requirement is an air-purifying respirator equiped with organic compound/acid gas/dust cartridge.
4. HH = hardhat; L= Latex; L/N = latex inner glove, nitrile outer glove; N = Nitrile; S = Saranex; SG = safety glasses; SGSS = safety glasses with sideshields; STSS = steel toe safety shoes; FS = face shield; GG = goggles.
5. Latex outer boot (or approved overboot) required whenever contact with contaminated materials may occur. SSHO may downgrade to STSS (steel-toed safety shoes) if contact will be limited to cover/replacement soils.
6. Dust masks shall be donned as directed by the SSHO (site safety and health officer) or site safety technician whenever potentially contaminated airborne particulates (i.e., dust) are present in significant amounts in the breathing zone. Goggles or face shield may be substituted with safety glasses w/side-shields whenever contact with contaminated liquids is not anticipated.

FIGURES



PROJECT:

HEALTH & SAFETY PLAN
NPT 1747 DALE ROAD SSF SITE (915146)
CHEEKTOWAGA, NEW YORK

TITLE:

SITE LOCATION & VICINITY MAP

DRAWN BY:	BCH	PROJ NO.:	668941.0000.0000
CHECKED BY:	BMG		
APPROVED BY:	BCH		**FIGURE 1**
DATE:	SEPTEMBER 2025		

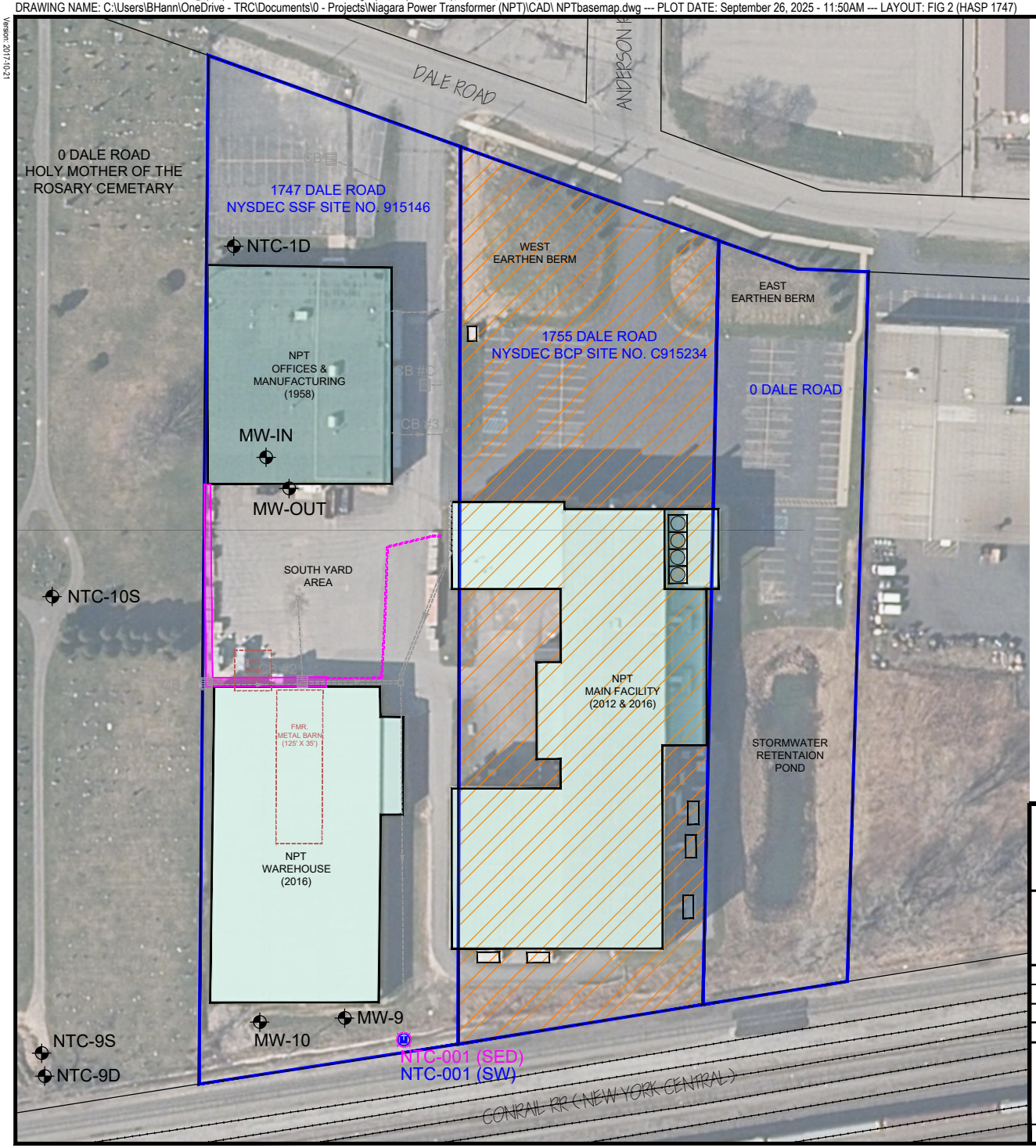
TRC
1090 Union Road
Suite 280
West Seneca, NY 14224
Phone: 716.289.2409
www.trccompanies.com

FILE NO.: NPTbasemap.dwg

8.5x11 -- USER: Bhann -- ATTACHED XREFS: Creek 2 (REV) -- ATTACHED IMAGES: Berms & Parking lot plan Hospital Route Map NPT Parcel NPT TOPO
DRAWING NAME: C:\Users\BHann\OneDrive - TRC\Documents\0 - Projects\Niagara Power Transformer (NPT)\CAD\ NPTbasemap.dwg --- PLOT DATE: September 26, 2025 - 10:59AM --- LAYOUT: FIG 1 (HASP 1747)

Version: 2017-10-21

8.5x11 --- USER: BHann --- ATTACHED XREF'S: Cheek_2 (REV) --- ATTACHED IMAGES: Berms & Parking lot plan; Hospital Route Map; NPT Parcel; NPT TOPO;
DRAWING NAME: C:\Users\BHann\OneDrive - TRC\Documents\0 - Projects\Niagara Power Transformer (NPT)\CAD\ NPTbasemap.dwg --- PLOT DATE: September 26, 2025 - 11:50AM --- LAYOUT: FIG 2 (HASP 1747)
Version: 2017-10-21



LEGEND:

- PROPERTY BOUNDARY
- BUILDING
- BCP SITE BOUNDARY
- CONCRETE CUTOFF WALL (APPROX.)
- SLURRY WALL (APPROX.)
- UTILITY - STORM SEWER
- UTILITY - STORM SEWER CATCH BASIN
- MW-9 — 1747 DALE ROAD NETWORK WELL
- NTC-001 (SED) — 1747 DALE ROAD SEDIMENT SAMPLE
- NTC-001 (SW) — 1747 DALE ROAD SURFACE WATER SAMPLE

N

120' 0' 120' 240'

SCALE: 1 INCH = 120 FEET
SCALE IN FEET
(approximate)

PROJECT:
HEALTH & SAFETY PLAN
NPT 1747 DALE ROAD SSF SITE (915146)
CHEEKTOWAGA, NEW YORK

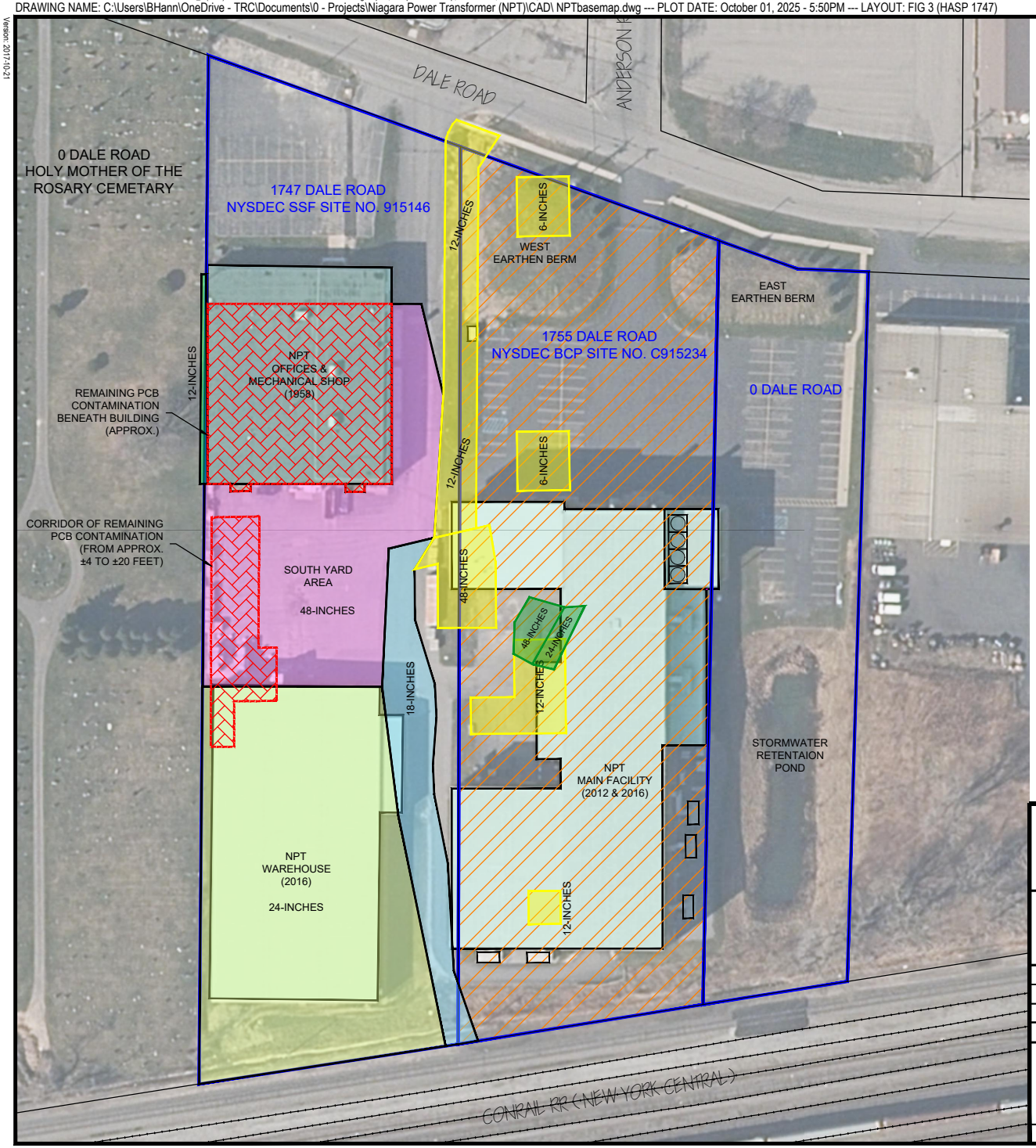
TITLE:
SITE PLAN

DRAWN BY:	BCH	PROJ NO.:	668941.0000.0000
CHECKED BY:	BMG		
APPROVED BY:	BCH		**FIGURE 2**
DATE:	SEPTEMBER 2025		

TRC
1090 Union Road
Suite 280
West Seneca, NY 14224
Phone: 716.289.2409
www.trccompanies.com

FILE NO.: NPTbasemap.dwg

8.5x11 --- USER: BHann --- ATTACHED XREF'S: Cheek_2 (REV) --- ATTACHED IMAGES: Berms & Parking lot plan; Hospital Route Map; NPT Parcel; NPT TOPO;
DRAWING NAME: C:\Users\BHann\OneDrive - TRC\Documents\0 - Projects\Niagara Power Transformer (NPT)\CAD\ NPTbasemap.dwg --- PLOT DATE: October 01, 2025 - 5:50PM --- LAYOUT: FIG 3 (HASP 1747)
Version: 2017-10-21



LEGEND:

- PROPERTY BOUNDARY
- BUILDING
- BCP SITE BOUNDARY
- REMAINING CONTAMINATION
- 1996/97 SSF REMEDIAL EXCAVATION 12"
- 1996/97 SSF REMEDIAL EXCAVATION 18"
- 1996/97 SSF REMEDIAL EXCAVATION 24"
- 1996/97 SSF REMEDIAL EXCAVATION 48"
- 1997 STAGING AREA REMEDIAL EXCAVATION
- 2004 STAGING AREA REMEDIAL EXCAVATION

N

120' 0' 120' 240'

SCALE: 1 INCH = 120 FEET
SCALE IN FEET
(approximate)

PROJECT:
HEALTH & SAFETY PLAN
1747 DALE ROAD SSF SITE (915146)
CHEEKTOWAGA, NEW YORK

TITLE:
1996/97 REMEDIAL EXCAVATION LIMITS

DRAWN BY:	BCH	PROJ NO.:	668941.0000.0000
CHECKED BY:	BMG		
APPROVED BY:	BCH		**FIGURE 3**
DATE:	OCTOBER 2025		

TRC
1090 Union Road
Suite 280
West Seneca, NY 14224
Phone: 716.289.2409
www.trccompanies.com

FILE NO.: NPTbasemap.dwg

Appendix A

Emergency Response Plan (ERP)

Emergency Response Plan

Niagara Power Transformer Site

NYSDEC SSF Site No. 915146
1747 Dale Road
Buffalo, New York

Prepared For:
Niagara Power Transformer (NPT)
1755 Dale Road
Cheektowaga, New York 14225

Prepared By:
TRC Engineers, Inc.
1090 Union Road, Suite 280
West Seneca, NY 14224

September 2025



TABLE OF CONTENTS

1.0 GENERAL 1

2.0 PRE-EMERGENCY PLANNING 2

3.0 ON-SITE EMERGENCY RESPONSE EQUIPMENT 3

4.0 EMERGENCY PLANNING MAPS 4

5.0 EMERGENCY CONTACTS 5

6.0 EMERGENCY ALERTING & EVACUATION 6

7.0 EXTREME WEATHER CONDITIONS 7

8.0 EMERGENCY MEDICAL TREATMENT & FIRST AID 8

- 8.1 Personnel Exposure 8
- 8.2 Personal Injury 8
- 8.3 Directions to Hospital 8

9.0 EMERGENCY RESPONSE CRITIQUE & RECORD KEEPING 9

10.0 EMERGENCY RESPONSE TRAINING 10

FIGURES

Figure A-1 Hospital Route Map

1.0 General

This site-specific Emergency Response Plan (ERP) is referenced as Appendix A to the site Health and Safety Plan (HASP) prepared for post-remedial activities that may be performed at the 1747 Dale Road NY State Superfund (SSF) Program Site (915146), located in Cheektowaga, Erie County, New York (herein referred to as the "Site", "SSF Site", or "1747 Dale Road SSF Site").

This ERP describes potential emergencies that may occur at the SSF Site; procedures for responding to those emergencies; roles and responsibilities during emergency response; and training all workers must receive in order to follow emergency procedures. This ERP also describes the provisions this SSF Site has made to coordinate its emergency response planning with other Contractor's and Subcontractor's on-site and with off-site emergency response organizations.

This ERP is consistent with the requirements of 29 CFR 1910.120(l) and provides the following site-specific information:

- Pre-emergency planning.
- Personnel roles, lines of authority, and communication.
- Emergency recognition and prevention.
- Safe distances and places of refuge.
- Evacuation routes and procedures.
- Decontamination procedures.
- Emergency medical treatment and first aid.
- Emergency alerting and response procedures.
- Critique of response and follow-up.
- Emergency personal protective equipment (PPE) and equipment.

2.0 Pre-Emergency Planning

The SSF Site has been evaluated for potential emergency occurrences, based on site hazards, required work tasks, site topography, and prevailing weather conditions. The results of that evaluation indicate the potential for the following site emergencies to occur at the locations indicated.

Type of Emergency:

1. Physical injury
2. Temperature related illness or injury

Source of Emergency:

1. Slip/trip/fall
2. Contact by heavy equipment
3. Excessive temperatures (hot or cold)

Location of Source:

1. Non-specific

3.0 On-Site Emergency Response Equipment

Emergency procedures may require specialized equipment to facilitate worker rescue, contamination control and reduction, or post-emergency clean up. Emergency response equipment available on the SSF Site is listed below. The equipment inventory and storage locations are based on the potential emergencies described above. The equipment inventory is designed to meet on-site emergency response needs, and any specialized equipment needs that off-site responders might require because of the hazards at the SSF Site but not ordinarily stocked.

Any additional PPE required and stocked for emergency response is also listed below. During an emergency, the Emergency Response Coordinator (ERC) is responsible for specifying the level of PPE required for emergency response. At a minimum, PPE used by emergency responders will comply with Section 7.0 of the HASP. Emergency response equipment is inspected at regular intervals and maintained in good working order. The equipment inventory is replenished as necessary to maintain response capabilities.

Emergency Equipment	Quantity	Location
Spill Response Kit	1	Site Vehicle
First Aid Kit	1	Site Vehicle
Chemical Fire Extinguisher	1 (minimum)	All heavy equipment and Site Vehicle (if applicable)

Emergency PPE	Quantity	Location
Full-face respirator	One for each worker	Site Vehicle (if necessary)
Chemical-resistant suits	4 (minimum)	Site Vehicle (if necessary)

4.0 Emergency Planning Maps

Due to the vast size of the SSF Site and likely performance of the work on an area-specific basis, area-specific maps of the SSF Site will be developed prior to initiation of field activities. The maps will be clearly marked with critical on-site emergency planning information. Emergency evacuation route(s), places of refuge, assembly point(s), and the locations of key site emergency equipment will be identified. SSF Site zone boundaries will be shown to alert responders to known areas of contamination. Major topographical features and the direction of prevailing winds/weather conditions that could affect emergency response planning will also be marked on the map(s). Once completed, the map will be discussed with field team personnel and posted at SSF Site entry points (as necessary), within the on-site field trailer (if present), placed inside TRC and personal field vehicles, and/or at strategic locations throughout the work site (as necessary).

5.0 Emergency Contacts

The following identifies the emergency contacts for this ERP.

Emergency Telephone Numbers:

TRC ECR Sector Safety Manager: ***Dave Sullivan***
Work: (978) 656-3565
Mobile: (978) 758-2809

Project Manager: ***Bryan C. Hann, P.G.***
Mobile: (716) 870-1165

Site Safety and Health Officer (SSHO): ***TBD***
Work: (716) TBD
Mobile: (716) TBD

Assistant SSHO: ***TBD***
Work: (716) TBD
Mobile: (716) TBD

ST. JOSEPH CAMPUS EMERGENCY ROOM (ER): (716) 891-2445
FIRE: 911
AMBULANCE: 911
CHEEKTOWAGA POLICE: 911
STATE EMERGENCY RESPONSE HOTLINE: (800) 457-7362
NATIONAL RESPONSE HOTLINE: (800) 424-8802
NYSDOH: (716) 847-4320
NYSDEC: (716) 851-7200
NYSDEC 24-HOUR SPILL HOTLINE: (800) 457-7362

The SSF Site location is:

Niagara Power Transformer
1747 Dale Road
Buffalo, New York 14225
(716) 896-6500

SSF Site Phone Number: (Insert Cell Phone or Field Trailer): _____

6.0 Emergency Alerting & Evacuation

Internal emergency communication systems are used to alert workers to danger, convey safety information, and maintain site control. Any effective system can be employed. Two-way radio headsets or mobile phones are often used when work teams are far from the command post. Hand signals and air-horn blasts are also commonly used. Every system must have a backup. It shall be the responsibility of each Contractor and/or Subcontractor's SSHO to ensure all personnel entering the site understand an adequate method of internal communication. Unless all personnel are otherwise informed, the following signals shall be used.

- Emergency signals by portable air horn, siren, or whistle: two short blasts, personal injury; continuous blast, emergency requiring site excavation.
- Visual signals: hand gripping throat, out of air/cannot breathe; hands on top of head, need assistance; thumbs up, affirmative/everything is OK; thumbs down, no/negative; grip partner's wrist or waist, leave area immediately.

If evacuation notice is given, site workers leave the worksite with their respective buddies, if possible, by way of the nearest exit. Emergency decontamination procedures detailed in Section 12.0 of the HASP are followed to the extent practicable without compromising the safety and health of site personnel. The evacuation routes and assembly area will be determined by conditions at the time of the evacuation based on wind direction, the location of the hazard source, and other factors as determined by rehearsals and inputs from emergency response organizations. Wind direction indicators are to be located so that workers can determine a safe up wind or cross wind evacuation route and assembly area if not informed by the emergency response coordinator at the time the evacuation alarm sounds. Since work conditions and work zones within the site may be changing on daily basis, it shall be the responsibility of the construction SSHO to review evacuation routes and procedures as necessary and to inform all field personnel of any changes.

Personnel exiting the SSF Site will gather at a designated assembly point. To determine that everyone has successfully exited the site, personnel will be accounted for at the assembly site. If any worker cannot be accounted for, notification is given to the SSHO so that appropriate action can be initiated. Contractors and Subcontractors on the SSF Site should coordinate their ERPs to ensure that these plans are compatible, and that source(s) of potential emergencies are recognized, alarm systems are clearly understood, and evacuation routes are accessible to all personnel relying upon them.

7.0 Extreme Weather Conditions

In the event of adverse weather conditions, the SSHO in conjunction with the Contractor and/or Subcontractor's SSHO will determine if engineering operations can continue without sacrificing the health and safety of site personnel. Items to be considered prior to determining if work should continue include but are not limited to:

- Potential for heat/cold stress.
- Weather-related construction hazards (e.g., flooding, or wet conditions producing undermining of structures or sheeting, high wind threats, heavy snowfall, etc.).
- Limited visibility.
- Potential for electrical storms.
- Extreme high winds.
- Limited site access/egress (e.g., due to heavy snow)

8.0 Emergency Medical Treatment & First Aid

Emergency medical treatment and first aid on environmental sites involves prioritizing the immediate stabilization of a patient depending on the exposure and/or injury, including assessing their condition, removing them from the contaminated area, managing potential life-threatening injuries, and providing appropriate first aid while ensuring the safety of the rescuer(s) by wearing proper PPE, all while notifying emergency services and providing relevant information about the exposure and/or injury.

8.1 Personnel Exposure

The following general guidelines will be employed in instances where health impacts threaten to occur, and acute exposure is realized:

- Skin Contact: Use copious amounts of soap and water. Wash/rinse affected area for at least 15 minutes. Decontaminate and provide medical attention. Eyewash stations will be provided on site. If necessary, transport to Hospital.
- Inhalation: Move to fresh air and, if necessary, transport to Hospital.
- Ingestion: Decontaminate and transport to Hospital.

8.2 Personal Injury

Minor first-aid will be applied on-site as deemed necessary. In the event of a life-threatening injury, the individual should be transported to a hospital via ambulance. The SSHO will supply available chemical specific information to appropriate medical personnel, as necessary.

First aid kits will conform to Red Cross and other applicable good health standards and shall consist of a weatherproof container with individually sealed packages for each type of item. First aid kits will be fully equipped before being sent out on each job and will be checked weekly by the SSHO to ensure that the expended items are replaced.

8.3 Directions to Hospital

The following directions describe the best route from the SSF Site to **Saint Joseph Campus Emergency Room** (approximately 1.4 miles) (see **Figure A-1**):

- Turn left out of the NPT facility's main driveway and travel northwest along Dale Road to Walden Avenue.
- Turn left onto Walden Avenue.
- Turn right onto Harlem Road. Stay on Harlem Road (NY-240) for approximately two miles.
- St. Josephs Campus Emergency Room is on the right (2605 Harlem Road, Buffalo, NY 14225).

9.0 Emergency Response Critique & Record Keeping

Following an emergency, TRC's ECR Safety Manager, Project Manager, and SSHO shall review the effectiveness of this ERP in addressing notification, control, and evacuation requirements. Updates and modifications to this ERP shall be made accordingly. It shall be the responsibility of each Contractor and/or Subcontractor to establish and assure adequate records of the following:

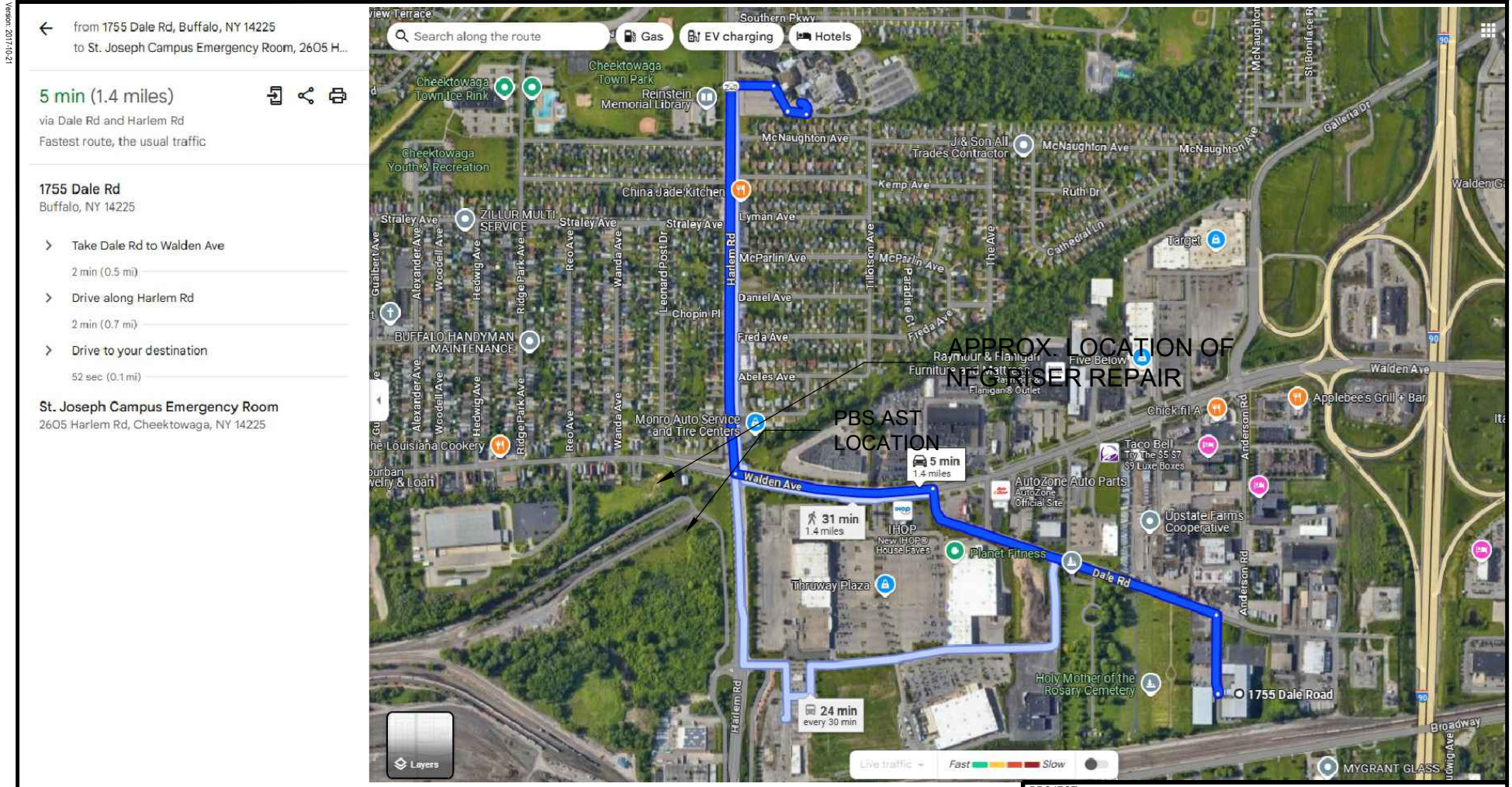
- Occupational injuries and illnesses.
- Accident investigations.
- Reports to insurance carrier or State compensation agencies.
- Reports required by the client.
- Records and reports required by local, state, federal and/or international agencies.
- Property or equipment damage.
- Third party injury or damage claims.
- Environmental testing logs.
- Explosive and hazardous substances inventories and records.
- Records of inspections and citations.
- Safety training.

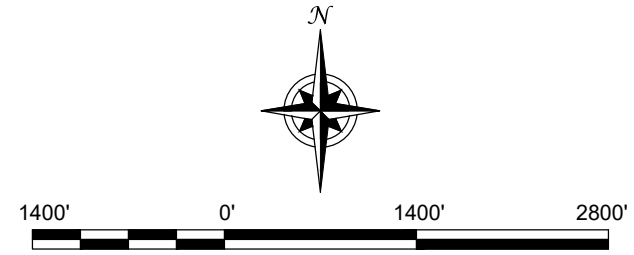
10.0 Emergency Response Training

All persons who enter the worksite, including visitors, shall receive a site-specific briefing (i.e., Tailgate Safety Meeting) about anticipated emergency situations and the emergency procedures by the SSHO. Where the SSF Site relies on off-site organizations for emergency response, the training of personnel in those off-site organizations has been evaluated and is deemed adequate for response to this SSF Site.

FIGURES

8.5x11 --- USER: BHann --- ATTACHED XREF'S: Cheek_2 (REV) --- ATTACHED IMAGES: Berms & Parking lot plan; Hospital Route Map; NPT Parcel; NPT TOPO;
DRAWING NAME: C:\Users\BHann\OneDrive - TRC\Documents\0 - Projects\Niagara Power Transformer (NPT)\CAD\ NPTbasemap.dwg --- PLOT DATE: September 26, 2025 - 10:54AM --- LAYOUT: FIG A-1 (ERP-1747)
Version: 2017-10-21





SCALE: 1 INCH = 1400 FEET
SCALE IN FEET
(approximate)

PROJECT:
HEALTH & SAFETY PLAN - APPENDIX A
NPT 1747 DALE ROAD SSF SITE (915146)
CHEEKTOWAGA, NEW YORK

TITLE:
HOSPITAL ROUTE MAP

DRAWN BY:	BCH	PROJ NO.:	668941.0000.0000
CHECKED BY:	BMG		
APPROVED BY:	BCH		**FIGURE A-1**
DATE:	SEPTEMBER 2025		

TRC
1090 Union Road
Suite 280
West Seneca, NY 14224
Phone: 716.289.2409
www.trccompanies.com

FILE NO.: NPTbasemap.dwg

Appendix B

TRC
Incident Reporting Procedure
& Forms

1. PURPOSE

This compliance program outlines the responsibilities, help TRC employees understand how to respond to safety incidents and prevent recurrences by raising awareness of the risks associated with key incidents, process for investigating work-related incidents, developing corrective actions, and communicating lessons learned throughout the organization. Communicating lesson learned provides practical solutions to improve behavior and mitigate safety hazards.

This program also contains provisions for employee exposure and medical records. In conjunction to what is written in this compliance program, TRC will follow the regulations of 29 CFR 1904.39: Recording and Reporting Occupational Injuries and Illness and 29 CFR 1020 Access to Employee Exospore and Medical Records.

2. SCOPE

This program applies to all TRC personnel and projects in the United States.

3. DEFINITIONS

Employee Exposure Record: A record containing any of the following kinds of information: environmental (workplace) monitoring or measuring of a toxic substance or harmful physical agent; biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems; safety data sheets associated with exposures in the workplace; or chemical inventory or any other record which reveals where and when used and the identity of a toxic substance or harmful physical agent.

Employee Medical Record: A record concerning the health status of an employee which is made or maintained by a physician, nurse, or other health care personnel, or technician, as defined by 1910.1020(c)(6)(i).

Environmental Incident: An unplanned event that caused, or could likely have caused, a negative impact on the environment receptor, e.g. air, water, land, wildlife, or local habitat involving TRC.

Illness: Unhealthy condition; poor health; indisposition; sickness.

Injury: Wound or trauma; damage inflicted on the body by an external force.

Near Miss: A situation or condition that has a potential for an incident to occur. No property was damaged, and no injury or illness was sustained, but where given a change in time or position, an environmental incident, property damage or personal injury could have occurred.

Nonconformance: A deviation from applicable legal and other requirements, which include TRC's Health and Safety Management System and client expectations.

Property Damage: Damage to company, client, or personal property through another's negligence, willful destruction, or by some act of nature involving TRC.

Safe Catch: A near miss or incident that has not resulted in any personal injury. Unsafe working conditions, unsafe employee behaviors, improper use of equipment or use of malfunctioning equipment have the potential to cause work related injuries.

Safety Incident: A work-related event in which an injury or illness occurred or could have likely occurred. Subcategories of incidents include near misses and safe catches.

Serious Incident: A work-related event which requires medical treatment beyond first aid for any party involved; or environmental events which require TRC to notify a regulatory agency.

Severe Injury: A work-related incident which requires in inpatient hospitalization, transportation via ambulance, or a fatality.

Safety Reporting System (SRS): TRC digital platform that provides employees with a centralized online portal for reporting incidents, safe catches, and safe recognition events.

4. ROLES AND RESPONSIBILITIES

4.1 The Corporate EHS Team is responsible for the following:

- Lead or facilitate investigations for incidents and safety related non-conformances to identify root causes and corrective actions.
- Facilitate the corrective action process with the affected employees.
- Assist members of TRC's Health and Safety Network with the development of Lessons Learned Report.
- Coordinate audits of field work in accordance with TRC's Health and Safety Management System to confirm that the corrective actions were implemented and are effectively controlling the hazard(s).
- Coordinating the access to employee medical and exposure records. Retaining employee medical and exposure records and providing access these records upon request.
- Assist with developing and communicating the Lessons Learned Report to the entire company.

4.2 Health and Safety Network is responsible for the following:

- Assisting in incident investigations.
- Development of Lessons Learned Reports.
- Communicating the Lessons Learned Report in safety meetings.
- Educating employees on employees' right to access employee medical and exposure records.

4.3 Supervisors are responsible for the following:

- Communicate with the Corporate Safety Department when an incident occurs.

- Initiating and assisting with investigating incidents and non-conformances.
- Assisting with developing corrective actions.
- Assist the Health and Safety Network with the dissemination of the Lessons Learned Report.

4.4 Employees are responsible for the following:

- Participating in incident investigation and development of corrective actions.
- Reviewing lessons learned and supporting corrective actions.
- Contacting their supervisor or a member of the Corporate Safety Department to request access to their employee medical or exposure records.

5. PROCEDURE

5.1 Incident Reporting:

The Incident Reporting Matrix identifies, based on type of incident, who within corporate management shall be verbally notified and when. It also specifies which type of report from the field shall be completed based on the type of incident. TRC employees must report all incidents and potential injuries to their supervisor immediately and follow the Incident Response Flow Chart (**Appendix A**).

INCIDENT NOTIFICATION MATRIX

TYPE OF INCIDENT	WHO TO NOTIFY	WHEN	SRS SUBMITTAL
Minor First Aid	Project Manager/Supervisor, Corporate EHS, WorkCare, Client If Required	ASAP	Yes
In-patient Hospitalization Amputation Loss of an Eye	Project Manager/Supervisor, National Safety Director, OSHA	Within 24 hours to OSHA and Client (host facility)	Yes
Fatality	Project Manager/Supervisor, National Safety Director, OSHA	Within 8 hours to OSHA	Yes

OSHA defines “in-patient hospitalization” as a formal admission to the in-patient service of a hospital or clinic for care or treatment. Treatment in an emergency room only is not reportable.

OSHA defines “amputation” as the traumatic loss of all or part of a limb or other external body part. This would include fingertip amputations with or without bone loss; medical amputations resulting from irreparable damage; and amputations of body parts that have since been reattached. When there is a health care professional’s diagnosis available, TRC should rely on that diagnosis.

5.2 Emergency Procedures:

In the event of an emergency:

- Stop work and REMAIN CALM.
- Move personnel to a safe location.
- For life threatening injuries and medical emergencies call 911 or go to the closest emergency room.
- If serious injury or life-threatening condition exists, call 911. Clearly describe the location, injury and conditions to the dispatcher. Designate a person to direct emergency equipment to the injured person.
- Address medical emergencies and apply first aid, if necessary. Contact WorkCare for all injuries, even when symptoms are minor.
- Contain physical hazards.
    - Act only if hazard is minimal and you are trained to deal with the situation. Otherwise evacuate and wait for emergency services to arrive.
- Do not resume work until Project Manager/Supervisor has determined it safe to do so and appropriate corrective actions have been implemented to prevent the incident from occurring again.

5.3 Non-Emergency Procedures:

In the event of a non-emergency injury or incident:

- Employees:
    - Stop work immediately;
    - Contact Project Manager/Supervisor; and
    - Contact WorkCare for all injuries, even when symptoms are minor.
- Project Manager/Supervisor:
    - Immediately notify the TRC National Safety Director and to the injured employee's direct supervisor.
    - Work with employee(s) to mitigate hazard(s) which caused incident and institute corrective actions.

5.4 Incident Reporting to OSHA

- Fatality
  - The Occupational Safety and Health Administration (OSHA) is to be contacted within eight hours after the fatality of any employee because of a work-related incident.
- Severe Injury
  - OSHA and the Client (host facility) is to be contacted within 24 hours after a severe injury to any employee because of a work-related incident.
- Methods of Contacting OSHA
  - By telephone or in person to the OSHA Area Office that is nearest to the site of the incident.
  - By telephone to the OSHA toll free central telephone number, 1-800-321-OSHA (6742).
  - By electronic submission using the reporting application located on OSHA's public website at www.osha.gov.

6. INCIDENT INVESTIGATION

All incidents will be investigated to the appropriate level with regards to incident severity. While all incidents should be investigated, the extent of such investigation shall reflect the seriousness of the incident utilizing a root cause analysis process or other similar method determined by the Corporate Safety Team. After immediate rescue or response, actions to prevent further loss will occur if the scene is safe. For example, maintenance personnel should be summoned to assess integrity of buildings and equipment, engineering personnel to evaluate the need for bracing of structures, and special equipment/response requirements such as safe rendering of hazardous materials or explosives employed. In the case of a major injury or incident the scene of the event should be closed off and kept "as is" at the time of the incident. This is vital for effective incident investigation, Evidence such as people, positions of equipment, parts, and papers must be preserved, secured, and collected through notes, photographs, witness statements, flagging, and impoundment of documents and equipment. All shall be dated.

The impacted employee, and the employee's supervisor are to complete the required TRC Incident Forms (General Information, Auto Incident, Injury / Illness, Property Damage, Supervisors Investigation) in the SRS Portal within 24 hours of the incident and forward to the National Safety Director. Work-related incidents shall be investigated in a timely manner. Incidents that resulted in injury or illness, including first aid, early-stage symptoms (i.e., sore muscle, rash, etc.), and tick or insect bites will be documented using the TRC Injury Illness Form in the SRS Portal.

As part of the incident investigation, it will be necessary to interview the injured or affected employee along with any other employees who may have been involved or who witnessed the incident. Remember that you are working to know the facts of the situation; "fault" is not a concern. Below are some guidelines to assist in conducting the interview:

- Conduct interview(s) as soon as possible after the incident.
- Focus on interviewing person(s) most directly involved with the incident.
- Be respectful of the interviewee's physical and emotional state; be sympathetic if the person has suffered an injury.

6.1 Initiating an Interview:

- Introduce yourself and ask the person if they can help you determine what happened.
- If possible, conduct the interview in a private location.
- Put the interviewee at ease by:
  - Explaining that getting the facts may help prevent a recurrence;
  - Explaining that information will be shared only on a need-to-know basis;
  - Explaining that the employee will remain anonymous on any communications of lessons learned; and
  - Remaining cordial and professional even if the interviewee is not cooperative.

6.2 Developing the Narrative:

- Collect the facts and ask the interviewee to relate the events of the incident in his or her own words. Allow the person to complete each statement and do not fill silences with leading questions.
- Construct a timeline. Pay close attention to the sequence of events in order to establish a timeline and identify critical elements for future clarification or expansion.
- Take photos of the area and equipment involved. Avoid taking photos of people.
- Clarify critical elements:
- Based on the interviewee's statements, prompt him/her to elaborate on critical information.
  - Ask open-ended questions to help clarify important information.
  - Avoid using emotive or judgmental language.
  - Do not prompt interviewee to speculate. Record only what the interviewee considers factual.
- Ask control questions. Ask questions for which you already know the answer, to give you a basis for evaluating the current reliability of the interviewee's statements.

- Confirm accuracy. Periodically summarize events for the interviewee to confirm the information has been accurately recorded.

6.3 Collecting Additional Information:

- Once the narrative has been developed, ask the interviewee how the incident could have been prevented.
- Thank the interviewee for cooperating with the investigation.
- Exchange contact information so that both parties can follow up; the interviewer may have additional questions, and the interviewee may remember additional details after the interview has been concluded.

6.4 Causal Factor Analysis:

- After the incident investigation has been completed, the information gathered should allow for the development of the causal factors. Below is a summary of the causal factor analysis process:
  - Identifying the causal factors will help determine the appropriate corrective actions.
  - In many cases more than one causal factor is identified.
  - Focus on the causal factors that are most applicable to the incident.

6.5 Identifying the Causal Factors:

It is important to identify the causal factor(s), Part I from Appendix D, related to the incident. Using this tool will allow for you to better determine the cause of the incident and help to focus on the appropriate corrective actions. The National Safety Director will help in determining applicable causal factors. Please see below the casual factor categories and potential selections.

7. CORRECTIVE ACTIONS, VERIFICATION AND VALIDATION, AND LESSONS LEARNED REPORT

The next step in the process is to develop and implement the corrective actions, verify, and validate that the corrective actions were successful, and disseminate the lessons learned report to TRC employees. Changes to processes must be placed into effect to prevent reoccurrence or similar events.

7.1 Development of Corrective Actions:

- Hazard mitigation methods generally fall into four categories:
  - Engineering or mechanical controls or job redesign: This is the preferred method since it eliminates or reduces the hazard and is a permanent solution. We will use this solution when possible.
  - Administrative Control: May include modifying a standard work practice and/or procedure or operational/systemic practice. An example is to limit the amount of time an employee is exposed to a repetitive operation or exposed to a noisy environment.

- Training: Once a safe job procedure has been established, employees can be trained in the proper (safe) method to do the job. While training is always desirable (and is required by law), a challenge with this solution is that it requires constant supervision to ensure employees continue to do the job in the way they were trained.
- Personal Protective Equipment (PPE): It is necessary to use hearing protection for noisy areas, proper gloves for material handling or exposure to chemicals or other material, steel-toe boots, and hard hats for protection against physical injury, and respirators to guard against exposure to air contaminants. This solution requires an evaluation of the proper PPE, additional training if necessary, and supervision and periodic inspection to ensure the equipment is used properly.

- The corrective actions will be developed by a team of individuals consisting of the employee(s) that were onsite, the Project Manager/Supervisor, the National Safety Director, and the Office Safety Coordinator. Other people may be involved depending on the severity of the incident or the complexity in developing corrective actions. Investigation findings will be tracked on the TRC Incident Investigation form.

7.2 Verification and Validation of Corrective Actions:

The corrective actions that are formulated and implemented must be verified and validated to ensure that employees are using the new safety controls and that the controls established are serving the purpose in eliminating the hazardous condition(s). Sometimes corrective actions may introduce additional safety hazards that may not be apparent until they are applied in the field. In addition, the verification and validation process allow for opportunities to photograph the corrective action while in process, which can be used in the Lessons Learned Report to follow. To identify that the safety controls are implemented and working, an observation must be planned.

7.3 Dissemination of Lessons Learned Report:

- The communication of the Lessons Learned Report is the final step. The report is designed to provide each employee with a quick summary of the incident, causal factor(s), and short- and/or long-term corrective actions. A sample of the Lessons Learned Report is provided **Appendix A**.
  - Sources of these lessons include incidents, First Aid cases, near misses, safe catches and observation findings from projects and offices throughout TRC.
- Where appropriate (typically only for very high-risk occasions or where similar reportable incidents are repeated) the SVP of Safety and Quality may send a formal notice to staff and Subcontractors requiring a change of work practice(s) and request an acknowledgement signature from employees and Subcontractors associated with the Project Team.

- It is the expectation that this program will provide employees and Subcontractors with a clear understanding of how to respond to safety incidents, conduct investigations, determine causal factors and corrective actions, and disseminate lessons learned to employees.

8. EMPOYEE MEDICAL AND EXOPSURE RECORDS

- Upon new hire orientation and annually thereafter, OSCs and Supervisors shall inform employees of their right to access employee medical and exposure records, the location of the records (TRC's Corporate Safety Folder), and the process for requesting these records. Employees can request these records from their local OSC, their direct Supervisor, or any member of TRC's Corporate Safety Department.
- Employee medical records associated with occupational health and safety will be securely stored electronically and retained by the Corporate Safety department for at least 30 years after the exposure or injury/illness occurs.
- If TRC ceases to do business, it shall transfer all records subject to this section to the successor employer. Whenever TRC either is ceasing to do business and there is no successor employer to receive and maintain the records, or intends to dispose of any records required to be preserved for at least thirty (30) years, TRC shall transfer the records to the Director of the National Institute for Occupational Safety and Health (NIOSH) if so required by a specific occupational safety and health standard.
- Employee medical and exposure records shall be provided to the requesting employee or their designated representative, within 15 business days, and no cost to the employee. Employee medical and exposure records will be treated confidentially. The contents which could directly or indirectly identify other employees (i.e., not associated with the requestor) will be redacted from the records provide to the requesting employee.

9. TRAINING

Incident investigators will be trained on their responsibilities and incident investigation techniques. Personnel must be trained in their roles and responsibilities for incident response and incident investigation techniques. Training requirements relative to incident investigation and reporting are described below:

- Training frequency will be based on the specific area of responsibility but shall not exceed once every two years.
- Training requirements relative to incident investigation and reporting shall include:
  - Awareness
  - First Responder Responsibilities
  - The Initial Investigation at the Accident Scene
  - Managing the Accident Investigation

- Collecting Data
- Analyzing Data
- Developing Conclusions and Judgments of Need
- Reporting the Results

10. REFERENCES/RELATED DOCUMENTS

29CFR1904.39

Employee Medical and Exposure Records

11. APPENDICIES

A. Incident Response Flowchart

B. Example Lessons Learned Report

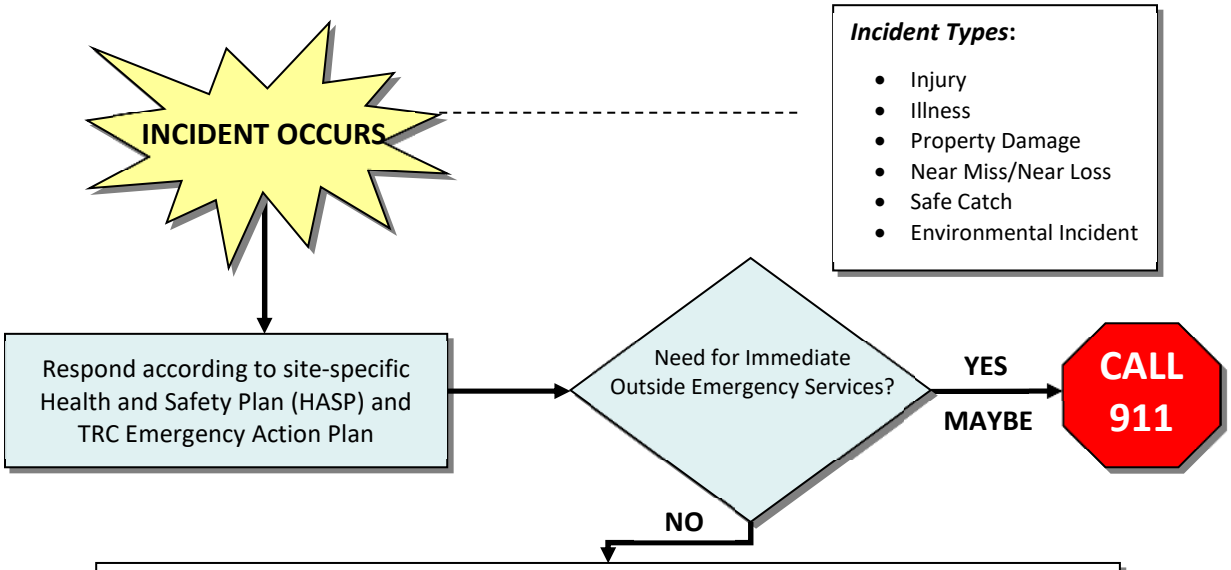
12. REVISION HISTORY

Revision Number	Revision Date	Summary of Revision	Modified by
0	4/3/14	New Document	Todd Woletz
4	1/8/20	Reformatting of document and minor revisions	Tim Johnson
5	3/5/21	Reviewed general formatting, and roles and responsibilities, reporting requirements, and employees record retention policy.	Tim Johnson
6	2/22/23	Addition of training requirements, client reporting requirements, and general formatting of document.	Tim Johnson
7	7/10/23	Updated to replace incident report forms with Safety Reporting System.	Tim Johnson

APPENDIX A

INCIDENT RESPONSE AND REPORTING FLOWCHART

INCIDENT RESPONSE



TRC Employee

- Determine immediate response actions
- Administer First Aid/CPR to level of competency
- Control/contain incident, if safe to do so
- Call Project Manager/Supervisor to report incident
- Call **WORKCARE** at **(888) 449-7787**
- Gather incident information (take notes, photos, witness info, drawings, etc.)

Project Manager/Supervisor

- Notify a member of the Corporate Health and Safety Team and your manager (in that order)
- Assist with developing immediate response actions, evaluate need for additional TRC support to scene for assistance, and deploy as needed
- Gather incident information from on-site employee
- Visit site to assess scene, as required

TRC Safety Director
Mike Glenn (949) 727-7347 or (949) 697-7418 - cell

APPENDIX B
EXAMPLE LESSONS LEARNED REPORT

TRC — Results you can rely on

August 2016

LESSONS LEARNED REPORT

HEAT-RELATED ILLNESS!
HIGH TEMP + HIGH HUMIDITY = HEAT STRESS

INCIDENT SUMMARY



A TRC employee, began to feel the effects of heat stress as a result of the environmental conditions. As the summer temperature increased to 88 degrees Fahrenheit, the employee became saturated with sweat, nauseous, hands began to tremble, and fell short of breath. The employee notified the crew supervisor on-site of his condition. The employee was immediately given water to rehydrate and rest in an air-conditioned vehicle. WorkCare was called and based on the employee's symptoms, medical attention was recommended. The field supervisor located the nearest medical facility listed on the project-specific Health and Safety Plan and transported the employee to be evaluated. The employee was diagnosed with heat exhaustion and intravenous fluids were administered. Thankfully, the employee was cleared for discharge shortly thereafter and was able to return to regular work duty the following day.

CONTRIBUTING CAUSES/FACTORS

- **Extreme Heat**
  - Ambient air temperature exceeds **85 degrees** with relative humidity greater than **50 percent**. Temperature on this particular day was **88 degrees** with a relative humidity of **68 percent**.
- **Modified Work/Rest Schedule**
  - Additional rest breaks should have been introduced based on the extreme temperatures associated with the work day.
- **Acclimated to the Task**
  - The employee had not worked regularly in the field in recent months so was not acclimated to the environmental conditions.
- **Maintain Body Fluids**
  - A total of 1 to 1.5 gallons of water per individual per day are recommended for fluid replacement under heat stress conditions. The employee was not drinking enough fluids for the environmental conditions.



CORRECTIVE ACTIONS

- **Stopped Work –** Administered fluids and removed the employee from the environmental conditions.
- **WorkCare –** Notified the incident intervention service of the situation.
- **Medical Attention –** Evaluation and corrective measures.
- **Modified Work Schedule –** Work schedule has been adjusted to 30-minutes on/30-minutes off during extreme heat days.
- **Fluid Intake –** Project staff will consume 32 ounces of water per working hour to ensure proper hydration. A water supply will be readily available on-site, in coolers with ice, no more than 100 meters from staff at all times.
- **WBGT Thermometer –** A Wet-Bulb Globe Temperature (WBGT) thermometer will stay on-site at all times to accurately measure the ambient air temperature and relative humidity.
- **Staff Messaging –** Safety Reminder circulated to staff. TRC's Heat Stress Prevention Program reviewed with project team.

LESSONS LEARNED

- **Monitor Physical Conditions –** Field staff should have had increased awareness of their physical condition and their fellow co-worker's condition for signs or symptoms of heat illnesses. **The Buddy System**—staff should be asking each other: How are you feeling? Nauseous? Shaky? Need a break? How much fluid have you had this hour?
- **Environmental Conditions Responsiveness –** Field staff should have avoided heavy exertion, extreme heat, sun exposure, and high humidity when possible. Work schedule should have been adjusted to accommodate more frequent rest periods and an altered work start time to conduct field tasks during the cooler portions of the day.
- **Safety Communication –** Incident review interviews determined that heat-stress was a topic of discussion at the Daily Pre-Task Safety Briefing. Continued heat discussions will take part of all Safety Briefings to highlight the importance of environmental conditions awareness and management.

Contact: If you have any questions about this report or would like additional information please contact Curt Biondich, PPL Safety Coordinator at cbiondich@trcsolutions.com or Mike Glenn, TRC Safety Director at mglenn@trcsolutions.com.

INCIDENT NOTIFICATION REPORT

(To be completed immediately after an Injury, Illness, Incident or Significant Near Miss by Employee's Supervisor and Employee involved)

Incident Category

☐ Injury/Illness ☐ Near Miss/Loss ☐ Property Damage ☐ Other

1 Incident Location: _____

2 Project #: _____

3 Client: _____

4 Date Incident Occurred: _____ Time: _____

5 Date Incident Reported: _____ Time: _____

TRC Employee Information

6 Name: _____ Phone: _____

7 Office: _____ Address: _____

8 Supervisor Name: _____ Phone: _____

9 Title or Occupation: _____

10 Sector/Practice:

Incident Description

11 Task Performed/Description of Incident:

12 Conditions at the Time of Incident (weather, lighting, etc.):

13 Description of Property Damage:

Employee Injury or Illness Description

14 Describe the Injury or Illness:

15 First Aid/Medical Treatment Administered:

16 Was WorkCare Contacted? ☐ Yes ☐ No

17 Name of Doctor's Office, Clinic or Hospital: _____

18 Address: Phone:

INCIDENT NOTIFICATION REPORT

(To be completed immediately after an Injury, Illness, Incident or Significant Near Miss by Employee's Supervisor and Employee involved)

Subcontractor Involvement

19 Was a subcontractor involved? ☐ Yes ☐ No

20 Name of Company: _____

21 Address: _____

22 Contact Name: _____ Phone: _____

23 Description of the Incident:

Witness Information

24 Were there witnesses to the incident? ☐ Yes ☐ No

25 Name(s) Address(es) Number(s)

_____

_____

Immediate Corrective Actions

26 Describe the Immediate Corrective Actions Taken:

Client Notification

27 Is there a client incident notification requirement? ☐ Yes ☐ No

28 Contact Name _____

29 Date of Notification: _____ Time: _____

30 Notification Method:

Supervisor: _____ Signature: _____ Date: _____

Employee: Signature: Date:

AUTO INCIDENT REPORT

EMPLOYEE INFORMATION (V-1):

Name: _____ Phone: ( ) _____

Sector/Practice: _____ Office Location: _____

Supervisor's Name: _____ Supervisor's Phone: ( ) _____

Project #: _____ Client's Name: _____

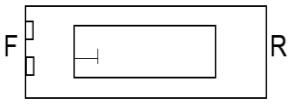
Driver's License #: _____ State: _____

VEHICLE INFORMATION (V-1):

Year/Make/Model of Vehicle: _____

License Plate #: _____ Vehicle ID # (VIN): _____

Circle Point of Contact:



Was Vehicle Drivable? ☐ Yes ☐ No

Vehicle Type (Use Drop List):

Rental Company (Use Drop List):

Fleet Type (Use Drop List):

INCIDENT INFORMATION:

Date of Incident: _____ Time of Incident: _____ A.M. _____ P.M. Photos Taken: ☐ Yes ☐ No

Location of Incident: _____ City/State: _____

Were The Authorities Contacted? Police: ☐ Yes ☐ No Ambulance: ☐ Yes ☐ No Fire: ☐ Yes ☐ No

Name of Police Dept: _____ Case #: _____ Officer Name: _____

Were Citations Issued? ☐ Yes ☐ No If Yes, To Whom? _____

Citation Number: _____

Were There Any Witnesses? ☐ Yes ☐ No If Yes, Please Provide Name, Address and Phone Below:

Witness Name: _____ Witness Phone: ( ) _____

Witness Address: _____

Traffic Conditions (i.e., heavy, light): _____ Weather Conditions (i.e., dry, wet, ice, fog): _____

WorkCare Contacted? ☐ Yes ☐ No

TRC Driver Injured? ☐ Yes ☐ No Medical Treatment Received? ☐ Yes ☐ No

Front Seat Passenger Injured? ☐ Yes ☐ No Medical Treatment Received? ☐ Yes ☐ No

Rear Driver Side Passenger Injured? ☐ Yes ☐ No Medical Treatment Received? ☐ Yes ☐ No

Rear Passenger Side Passenger Injured? ☐ Yes ☐ No Medical Treatment Received? ☐ Yes ☐ No

Describe Injuries:

Describe Damage to Property Other Than Motor Vehicles (i.e., guardrails, mailboxes, etc.):

AUTO INCIDENT REPORT

OTHER DRIVER & VEHICLE INFORMATION (V-2):

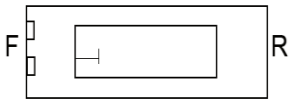
Driver's Name: _____ Driver's Phone: ( ) _____

Driver's Address: _____

Owner's Name (If different than driver): _____ Owner's Phone: ( ) _____

Owner's Address: _____

Year/Make/Model of Vehicle: _____ License Plate #: _____ State: _____

Circle Point of Contact: 

Was Vehicle Drivable? ☐ Yes ☐ No

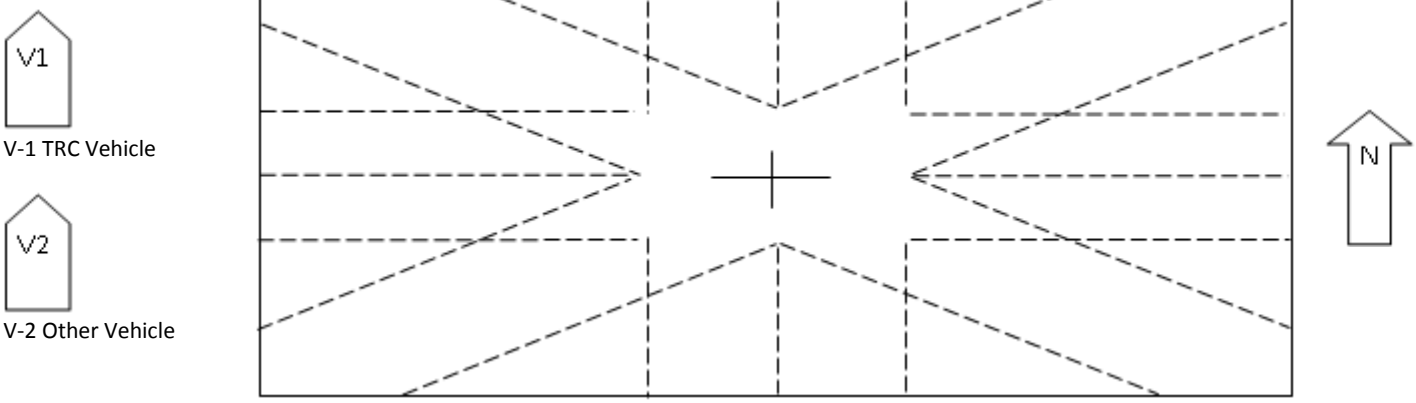
Insurance Company Name: _____ Policy Number: _____

Insurance Company Phone: ( ) _____ Number of Passengers in Vehicle: _____

List Persons Injured: _____

Were Any Other Vehicles Involved in Incident? ☐ Yes ☐ No If yes, provide details below:

PLEASE DESCRIBE THE INCIDENT AND COMPLETE THE DIAGRAM BELOW. Be sure to indicate as many details as possible (i.e., How many lanes in each direction; Were there any turn lanes; What kind of traffic controls were there – light, stop sign, yield sign, Positions of vehicles on impact).



Completed By: _____ Signature: _____

A-7 “Safe Catch” Report

A “Safe Catch” is a potential hazard or incident that has not resulted in any personal injury. Unsafe working conditions, unsafe employee behaviors, improper use of equipment or use of malfunctioning equipment have the potential to cause work related injuries. It is everyone’s responsibility to report and/or correct these potential incidents immediately. Please complete this form as a means to report these “Good Catch” situations and submit to your local OSC Representative and Mike Glenn, National Safety Director.

Complete ALL field entries:

Employee Name:		Date:	09/08/2025
Location:		Office:	
Project Number:		Practice:	

Conditions

Please check all appropriate conditions:

☐ Unsafe Act	☐ Unsafe Condition	☐ Unsafe Equipment	☐ Unsafe Use of Equipment

Description of Incident or Potential Hazard:

Task Performed at Time of Incident:

Causes (Primary and Contributing):

Corrective Action(s) Taken (remove the hazard, replace, repair, or retrain):

Employee Signature:		Date Completed:	

Our Mission: To reduce the frequency of incidents by applying local lessons learned globally.

If you have any questions about this report or would like additional information, please reference Compliance Program CP019—TRC Incident Response and Lessons Learned Program, located on TRCNET or contact Mike Glenn, National Safety Director at mglenn@trcsolutions.com.

EARLY INCIDENT INTERVENTION®

Immediate Access to Medical Advice for Work Related Incidents

(888) 449-7787

INTRODUCTION

WorkCare, Inc. (WorkCare) and TRC have partnered together to promote Incident Intervention®, a resource designed to support company safety goals/targets—while reducing runaway-costs associated with workplace injuries and illnesses.

PURPOSE

Early Incident Intervention provides TRC employees with **IMMEDIATE** telephonic access to WorkCare clinicians at the time of a presumed, non-emergency workplace injury or illness. Clinicians provide expert guidance on the evaluation of symptoms, appropriate first aid, and the need for additional medical evaluation or treatment.

When utilizing this service within the first hour of an incident, known as the "Golden Hour," licensed medical staff can guide the case so that medical evaluation and treatment are rendered appropriately.

> ***"…helps the worker traverse the unpredictable terrain of work-related injuries and illness."***

PRINCIPLES OF EARLY INCIDENT INTERVENTION

- Utilizes principles of the "Golden Hour."
- Provides workers immediate clinician support at the time of an incident.
- Focuses on providing the right care, at the right time in the proper setting.

BENEFITS FOR EMPLOYEES

- Instant access to a medically qualified professional for evaluation of symptoms and possible outcomes.
- Professional guidance on appropriate first aid measures and medications.
- Professional advice regarding the need for additional medical evaluation or treatment.

BENEFITS FOR TRC

- Point of contact for emergency and non-emergency medical clinicians.
- Triages the incident to determine risk and urgency, delivering interventions that are consistent with medical guidelines for the specified injury and illness.
- Maintains communication with clinicians to ensure accurate and timely reporting.

Appendix C

NYSDOH
Generic Community Air Monitoring Plan

Appendix C
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix C1
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^{o} C (14 to 122^{o} F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate

suppression and monitoring requirements are established for protection of health and the environment.

Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in nonresidential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.
- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m3 or less at the monitoring point.
- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

Special Requirements for Indoor Work With Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under “Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures” except that in this instance “nearby/occupied structures” would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

Appendix D

Hot Work Permit Form

HOT WORK PERMIT

PART 1 - INFORMATION

Issue Date:	Prepared By:
Date Work to be Performed: Start:	Finish (permit terminated):
Performed By:	
Work Area:	
Object to be Worked On:	

PART 2 - APPROVAL

(for 1, 2 or 3: mark Yes, No or NA)*

Will working be on or in:	Finish (permit terminated):	
1. Metal partition, wall, ceiling covered by combustible material?	yes	no
2. Pipes, in contact with combustible material?	yes	no
3. Explosive area?	yes	no

* = If any of these conditions exist (marked "yes"), a permit will not be issued without being reviewed and approved by Bryan C. Hann, P.G. (Corporate Health and Safety Director). Required Signature below.

PART 3 - REQUIRED CONDITIONS**

(Check all conditions that must be met)

	PROTECTIVE ACTION		PROTECTIVE EQUIPMENT
	Specific Risk Assessment Required		Goggles/visor/welding screen
	Fire or spark barrier		Apron/fireproof clothing
	Cover hot surfaces		Welding gloves/gauntlets/other:
	Move movable fire hazards, specifically		Wellintons/Knee pads
	Erect screen on barrier		Ear protection: Ear muffs/Ear plugs
	Restrict Access		B.A.: SCBA/Long Breather
	Wet the ground		Respirator: Type:
	Ensure adequate ventilation		Cartridge:
	Provide adequate supports		Local Exhaust Ventilation
	Cover exposed drain/floor or wall cracks		Extinguisher/Fire blanket
	Fire watch (must remain on duty during duration of permit)		Personal flammable gas monitor
	Issue additional permit(s):		

Other precautions:

** Permit will not be issued until these conditions are met.

SIGNATURES

Orginating Employee:	Date:
Project Manager:	Date:
Part 2 Approval:	Date: