



Flexo Transparent, Inc.

28 Wasson Street • Buffalo, NY 14240-0128

Brownfield Cleanup Program

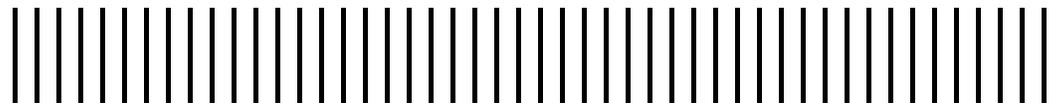
Remedial Investigation Work Plan and

Interim Remedial Measures Work Plan

**1132 & 1146 Seneca Street
Buffalo, NY 14240**

(BCP Site C915228)

July 2009



Report Prepared By:

Malcolm Pirnie, Inc.

50 Fountain Plaza
Suite 600
Buffalo NY 14202
716-667-0900

6105-002

The logo for Malcolm Pirnie, Inc. features the company name in a bold, white, sans-serif font. "MALCOLM" is on the top line and "PIRNIE" is on the bottom line. The text is centered within a solid black rectangular box.

**MALCOLM
PIRNIE**

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1. Introduction

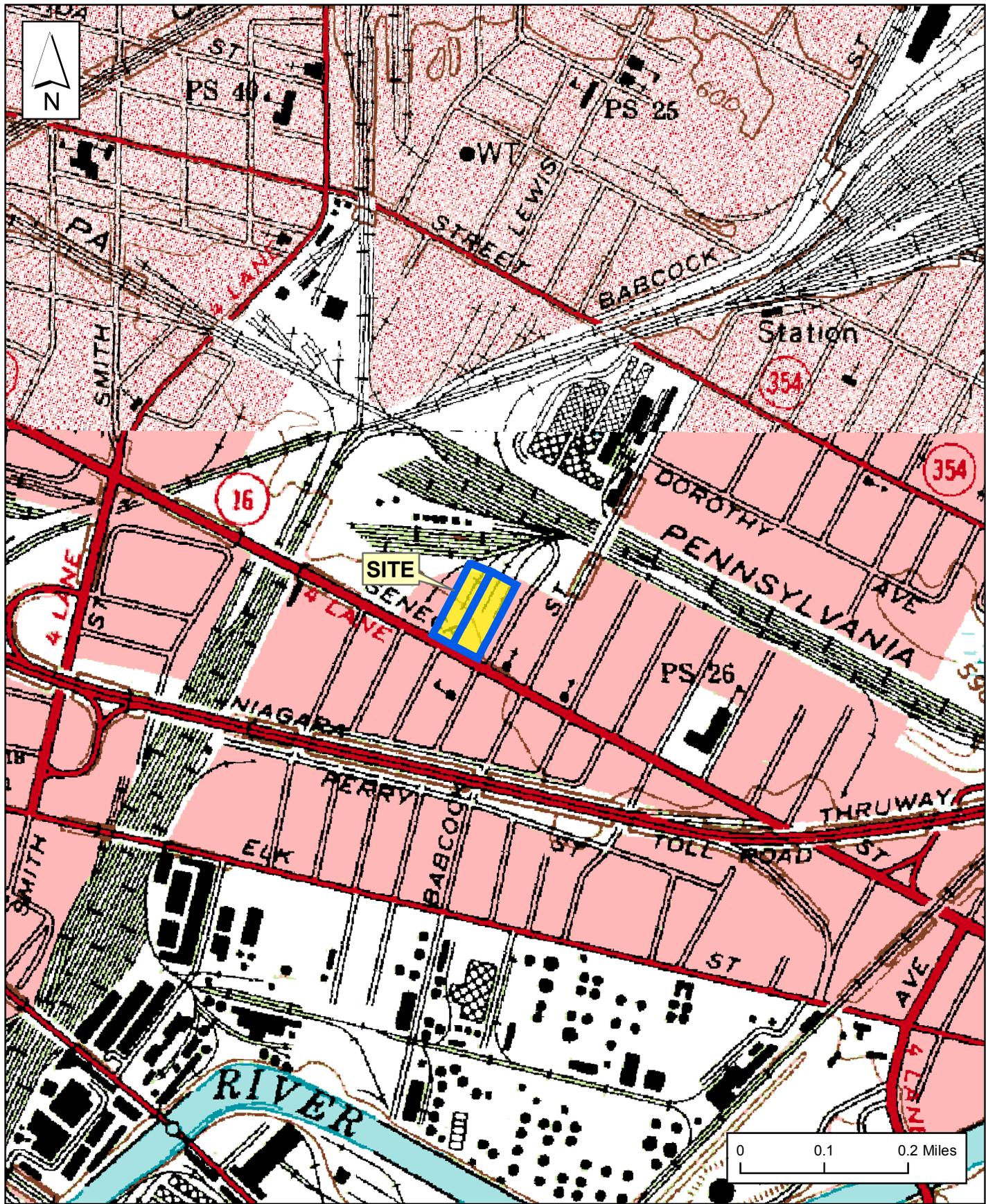
In July 2008, Flexo-Transparent, Inc. (volunteer) applied to and was granted entry into the New York State Department of Environmental Conservation's (NYSDECs) Brownfield Cleanup Program (BCP) for an approximately 4 acre Site located at 1132 and 1146 Seneca Street, Buffalo, New York, see **Figure 1-1**. The Site consists of two adjoining properties comprised of a former manufacturing facility on the westernmost property (1132 Seneca) and vacant land located immediately to the east. On December 8, 2008 the volunteer entered into a BCP agreement with the NYSDEC. Based on environmental data provided in the application, 3.7 acres of the proposed project Site were accepted into the BCP program. The volunteer plans to redevelop the Site as an expansion of their current business of manufacturing plastic wrapping and bags for food and other product packaging. The BCP site will have light industrial, office, and related parking uses. Malcolm Pirnie, Inc. (MPI) has prepared this Remedial Investigation Work Plan (RIWP) for investigation of the Site in accordance with the NYSDEC BCP requirements.

1.1. Site History

1132 Seneca Street

As shown on **Figure 1-1**, the property located at 1132 Seneca Street consists of one parcel identified by Erie County's GIS website as Parcel 83423. The property is approximately 1.7 acres in size and is zoned for "Manufacturing and Processing". The property improvements include a now vacant manufacturing building that once housed office, warehouse, and manufacturing areas. The building occupies the majority of the property. The construction date of the Site building is estimated to be 1920.

Site operations on the 1132 property included lumber and railroad yards, manufacture of electrical transformers and machines (Westinghouse and Eastern Electric), and most recently, the manufacture of fiberglass railroad transfer platforms (Fibreright). The northern, eastern, and western portions of the Site are enclosed within a chain link fence. Paved access roads that lead to an unpaved dirt/gravel area on the north side of the building are located along the western and eastern property boundaries. The northern area is vacant and covered with crushed stone and grass where fiberglass platforms, a dumpster, and plastic and metal refuse are staged. A rail spur enters the manufacturing building from the north and end at a loading platform in the northeastern corner of the building. The southern boundary of the Site is Seneca Street, where two large garage doors provide access to the manufacturing building. Overgrown shrubs located along the



BCP SITE LOCATION MAP
 1132 SENECA STREET AND 1146 SENECA STREET, BUFFALO, NY

FIGURE 1-1

chain link fenced perimeter of the 1146 Seneca Street property are located east of the 1132 building.

1146 Seneca Street

The eastern property located at 1146 Seneca Street consists of one parcel identified by Erie County's GIS website as Parcel 83422. The property which is approximately 2 acres in size is zoned "Vacant Industrial" and is overgrown with vegetation and tall shrubs. A rectangular concrete pad that measures approx. 125 feet N/S and 20 feet E/W is located on the property. Although the intended use of the pad is unknown, information obtained during a Phase I Environmental Site Assessment file review indicated that a bioremediation pad was formerly located on the 1146 Seneca Street property and was used for remediation of petroleum impacted soils excavated from an adjacent property (1070 Seneca Street) to the north.

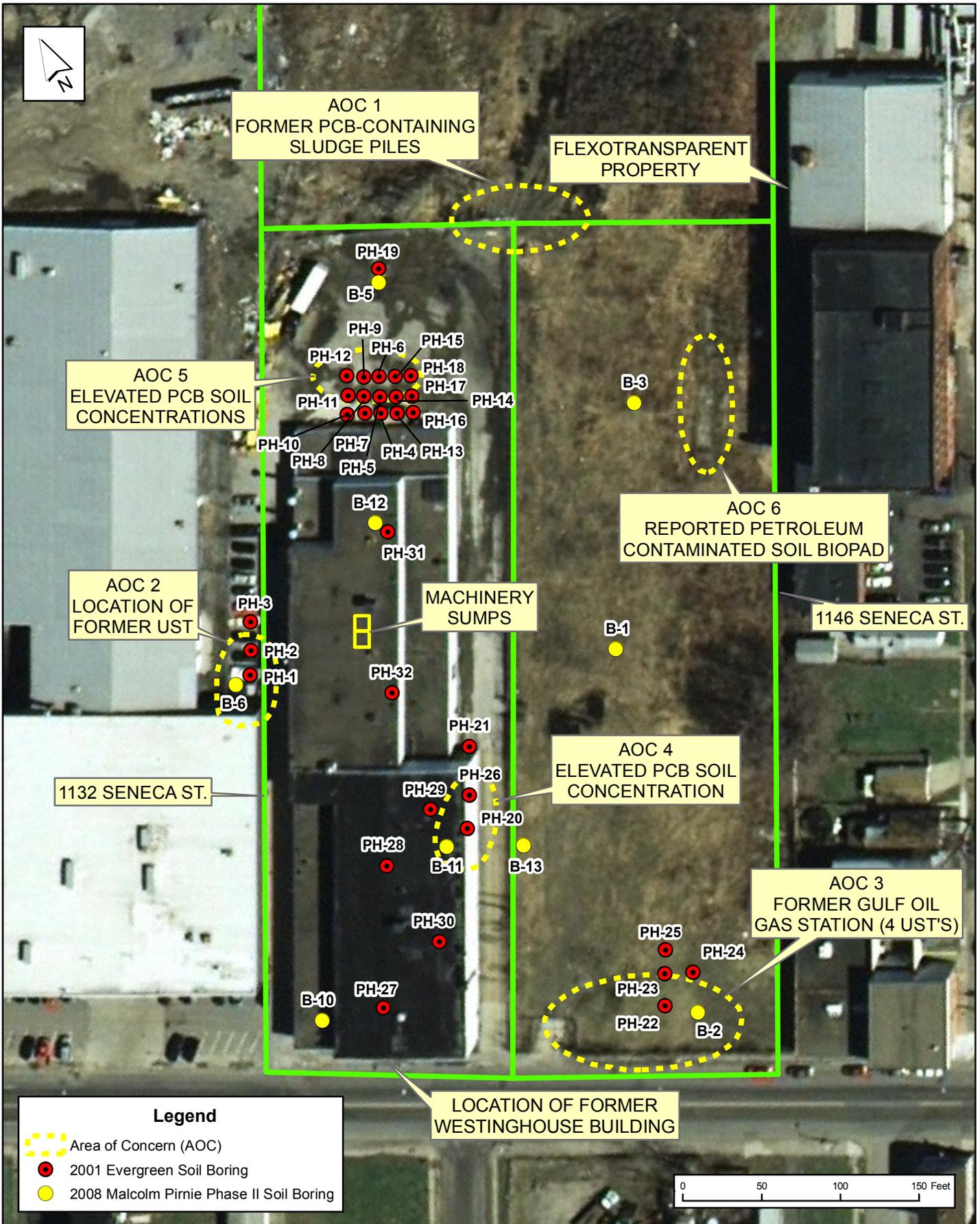
Historic operations on the 1146 property include lumber and railroad yards, clay products manufacturing, and a gasoline filling station. A portion of the property may also have been used by Westinghouse and Eastern Electric for manufacture of transformers and machines. Existing conditions at the Site include a surrounding chain link fence and a locked access gate located along the southern boundary. Abandoned playground equipment associated with the Seneca-Babcock Community Center is located in the southeastern portion of the property adjacent to foundation remnants of the former gas filling station. Flexo's manufacturing building is located adjacent to the northeastern portion of the 1146 Seneca Street property.

1.2. Previous Investigations and Remediation

The following is a chronologic summary of previous environmental investigations performed at the 1132 & 1146 Seneca Street Site. Information for this summary was obtained from reports prepared by Malcolm Pirnie and others. **Figure 1-2** shows the approximate location of six Areas of Concern (AOCs) and historic sampling locations referenced in this summary section.

1.2.1. 1989-1990 Removal of PCB Sludge Piles

Based on a records search completed as an element of a 2001 Phase I Environmental Site Assessment (ESA), an environmental investigation and subsequent remedial action was performed on the former Westinghouse Electric site during the period of October 1989 – November 1990. The environmental activities that characterized the soil materials and facilitated the excavation and disposal actions were completed by Dames & Moore on behalf of Westinghouse Electric Corporation with NYSDEC oversight. The October 1991 Dames & Moore report documents the investigation and remediation of two PCB-contaminated sludge piles located in the northeastern corner of the 1132 Seneca Street



Legend

- Area of Concern (AOC)
- 2001 Evergreen Soil Boring
- 2008 Malcolm Pirnie Phase II Soil Boring

property. As shown on **Figure 1-2** (Environmental Concerns and Historic Sampling Locations) the former location of the PCB impacted sludge piles was recognized as an Area of Concern and for the purpose of this work plan identified as AOC 1.

The Dames & Moore report details three phases of soil sampling and removal at the two sludge pile locations designated AOC 1. The work resulted in the removal and off-site disposal of both sludge piles and soils underlying the piles to a maximum depth of 44 inches. A total of 120 cubic yards of PCB-impacted soil was removed and the excavations backfilled with clean soil. The third and final phase of soil excavation and disposal was completed during October 1990.

1.2.2. July 2001 Limited Phase II Investigation

Working on behalf of Fibreright Manufacturing, Inc., Evergreen Testing and Environmental Services, Inc. was subcontracted to perform a limited environmental sampling and subsurface investigation of the 1132 and 1146 Seneca Street properties. The investigation was implemented based on environmental concerns identified in previous soil sampling and data review reports dated January, 1999 and May, 2001, respectively. The January 1999 and May 2001 documents referenced in the Evergreen report identified Areas of Concern (AOCs) that may have been impacted by petroleum based products and/or PCBs.

The locations of the AOCs include two former underground storage tank (UST) areas. The first of the former UST areas (AOC 2) was located immediately west of the manufacturing building with the second (AOC 3) located on the 1146 property in the area immediately adjacent to Seneca Street. Two additional AOCs, one located at the interior loading dock (AOC 4) and north of the manufacturing building (AOC 5) posed a concern based on the potential for elevated concentrations of PCBs. The Areas of Concern addressed in the Evergreen report are shown on **Figure 1-2**, and are addressed below.

AOC 2 and AOC 3

Based on a review of historic Sanborn maps and documented on-site work practices, a geophysical and limited subsurface investigation was conducted to better characterize existing subsurface and environmental conditions.

A non-invasive geophysical investigation was completed to further investigate areas of suspected or known USTs on the 1132 and 1146 properties. Results of the gridded survey identified a total of five magnetic anomalies designated A - E of which four were attributed to concrete pad foundations. Based on the findings of the geophysical investigation and suspected areas of contamination, a drilling and sampling program was

completed to characterize environmental impacts (if any) in the former UST areas. As shown on **Figure 1-2**, a total of three borings designated PH- 1, PH-2 and PH-3 were advanced in AOC 2 and four borings PH- 22 to 25 advanced in area AOC 3.

Based on soil screening criteria, soil samples were collected at select borings and submitted for off-Site chemical analyses that included both STARS and TCL volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), and in some cases polychlorinated biphenyl's (PCBs).

Analytical results for the soil and groundwater samples collected in AOC 1 detected low concentrations of select VOCs and SVOCs below STARS guidance criteria and/or TAGM cleanup objectives. A groundwater sample collected at sample location PH-2 did not contain parameters of concern above NYSDEC Class "GA" groundwater quality standards.

Petroleum odors were also noted in soil collected at two of the four borings advanced in the area of the former gas station on the 1146 property (AOC 3), and analytical results for soil samples collected from AOC 6 identified low concentrations of select VOCs that exceeded NYSDEC STARS guidance criteria.

Groundwater was encountered in only 4 borings advanced on the 1132 and 1146 Seneca Street properties. The saturated conditions were identified in AOC 2 in borings PH-2 and PH-3 and at AOC 2 in borings PH-4 and PH-5.

AOC 5 and AOC 4

To investigate the AOCs with suspected PBC contamination, 16 soil borings were advanced in a grid pattern at the Area of Concern identified as AOC 5, located north of the manufacturing building. Four borings were advanced within the loading dock of the manufacturing building in the area designated on **Figure 1-2** as AOC 4. The borings were typically advanced through fill materials to a depth of 6-8 feet bgs in both PCB Areas of Concern. The soil/fill material was encountered in all borings and measured between 2.5 and 4.5 feet in thickness. A native soil unit consisting of clay or silty clay with interbedded sand was identified below the fill unit in all AOCs.

Based on soil screening criteria, soil samples were collected at select borings and submitted for off-Site chemical analyses that included both STARS and TCL volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), and in some cases polychlorinated biphenyl's (PCBs). Comparison of the analytical results with NYSDEC Soil Cleanup Objectives (SCOs) for PCBs identified elevated concentrations above restricted commercial use SCO of 1 PPM in soil samples collected north of the manufacturing building (PH-4, PH-7, PH-8, PH-18 and PH-19) and in probe hole PH-20

advanced in the loading dock area. The maximum PCB concentration per AOC was 13 PPM at AOC 5 and 3500 PPM at AOC 4.

Groundwater was encountered in the fill unit in only two borings designated PH-4 and PH-5 located north of the building in AOC 2. The groundwater was encountered at a depth of less than 1.0' bgs as a perched condition and may be attributed to seasonal and site specific stratigraphic conditions. Only three of the 20 borings encountered PID readings above background concentrations, the highest being 20-25 PPM detected at boring PH-26 located in the area of the former railroad loading dock (AOC 4) on the eastern side of the manufacturing building.

Figure 1-2 illustrates the locations of all 32 soil borings that were drilled and sampled within the BCP Site as part of the Evergreen investigation. A copy of the 2001 Phase II Investigation report is included in the Phase I ESA -appendix C6 provided in **Appendix A**.

1.2.3. Sept 2007 Phase I Environmental Site Assessments (ESA)

A Phase I Environmental Site Assessment (ESA) was completed by Malcolm Pirnie, Inc. in September 2007 for both Site properties. The Phase I ESA identified Recognized Environmental Conditions (RECs) and de minimis conditions at the Site. The RECs and de minimis conditions found during the ESA are listed below by the property tract in which they were identified:

1132 SENECA STREET

- Significant staining and cracking of the concrete floor within the manufacturing building was evident.
- “Oily-greasy” stained soil was observed in the grassed area located north of the manufacturing building. The stained soil was found proximate to an area of PCB impacted soil/sludge piles for which there is documentation of remedial action.
- A limited subsurface investigation completed in 2001 (see Section 1.2.2) identified elevated PCB concentrations in soil samples collected in the northern grassed staging area (AOC 2) discussed above and in the interior railroad loading dock area (AOC 4).
- Based on the age and condition of the manufacturing building, asbestos containing materials (ACM) and lead-based paint may be present as a de minimis condition.

1146 SENECA STREET

- Based on sparse reporting records an “oily-greasy” soil was observed in the northeast portion of the 1146 property that is shown on **Figure 1-2** as Area of Concern (AOC 6).
- Soil samples collected adjacent to a former gasoline filling station in the southeast quadrant of the 1146 property identified slightly elevated VOC concentrations in excess of STARS criteria.

Figure 1-2 illustrates the locations of the above listed RECs.

Copies of the Phase I ESA are provided on compact disc (CD) in **Appendix A**.

1.2.4. March 2008 Phase II Investigation

Malcolm Pirnie performed a Phase II investigation of the properties located at 1132 and 1146 Seneca Street in support of the BCP application. Surface and subsurface soil/fill samples were collected from direct-push soil borings drilled to maximum depths of 12 feet. Samples were analyzed for TCL VOCs, SVOCs, TAL metals and PCBs.

The Phase II provided additional data for better characterization of the physical and chemical nature of the BCP site surface and subsurface soil/fill material. As shown on **Figure 1-2**, a total of nine borings (yellow highlight) were advanced and discrete soil samples collected based on PID screening results coupled with visual and olfactory observations. Groundwater samples were not collected during the 2008 investigation since all borings advanced during this investigation were dry.

1.2.4.1. Phase II Results - 1132 Seneca Street

Analytical results of the soil/fill testing performed during the 2008 Phase II investigation identified elevated levels of polychlorinated biphenyl's (PCBs) and two metals above NYS SCOs for restricted commercial use. Specifically, elevated concentrations of PCBs were detected at the boreholes B-5 (AOC 2) (20.6 PPM) and at boring B-11 advanced at the railroad loading dock (AOC 4) (16.9 PPM). Arsenic was detected at a concentration above the restricted industrial SCO at the B-10 sampling

1.2.4.2. Phase II Results - 1146 Seneca Street

Several SVOCs were detected at very low concentrations in three of the four samples collected at the 1146 property.

PCB (Aroclor 1260) was detected in one sample (B-3) at a concentration of 0.6 mg/kg.

Arsenic and barium were detected in one or more samples above the restricted industrial and/or commercial SCOs.

1.2.5. Site Development Plan

The planned Flexo-Transparent Development project will encompass approximately 4 acres on the 1132 and 1146 Seneca Street properties in Buffalo, New York (the "Site") and may include a planned future development of the 1070 property, adjacent and to the north of the Site. The anticipated Project schedule requires renovation and rehabilitation of the existing building and will include a phased buildout. The proposed development will allow for expansion of Flexo's existing and growing business, will enhance property values in the immediate area, and provide employment opportunity in the Seneca-Babcock area.

Phased Development

The Site development will include the construction of manufacturing and office space designed to complement renovation of the existing building at 1132 Seneca and modernization of the Flexo complex on Wasson Street. Long term expansion plans of the Flexo Site will also include facility expansion within the 1070 Seneca Street property. Planned development of the BCP Site will entail construction of more than 60,000 ft² of office, manufacturing and parking space at 1146 Seneca and a 40,000 ft² renovation at 1132 Seneca.

2. Purpose

A Remedial Investigation is planned to further characterize the Site and support planned development in accordance with the requirements of the BCP. Based on the historical use of the Site and documented characterization results; Malcolm Pirnie has developed a work scope to further investigate surface and subsurface conditions. This Work Plan details specific tasks that will facilitate Site characterization and compliance with the NYSDEC BCP requirements. Specifically, when used in concert with results of previous investigations, the findings of the remedial investigation will be used to:

- Describe the amount, concentration, persistence, mobility, form (e.g., solid, liquid), and other significant characteristics of the contamination present.
- Define hydrogeological factors (e.g., depth to saturated zone, hydrologic gradients (if practical), proximity to a drinking water aquifer, and wetlands proximity).
- Define the aerial extent of the Site fill material and characterize the chemical composition of the fill.
- If applicable, define the extent to which the contaminants of concern have potential to migrate, and whether potential future migration may pose a threat to human health or the environment.
- Determine the extent to which contaminant levels pose an unacceptable risk to public health and the environment.
- Provide sufficient information to allow for the identification of potentially feasible remedial alternatives.

Develop Remedial Action Objectives (RAOs) for the Site based on the contaminant characterization results, exposure pathways, and risk evaluation data. Based on our knowledge of potential Site issues, the RAOs for the Site may require implementation of remedial actions designed to remove or cover impacted soil/fill material.

3. Investigation Scope of Work

Completion of the Phase II investigations provided documentation of impacts to the surface and subsurface soil/fill at selected areas within the BCP Site. These areas and others not yet investigated will be further characterized to determine the nature and extent of potential and known contaminant impacts.

Six areas of concern (AOCs) have been identified on the 1132 & 1146 Seneca Street Site based on the findings of previous investigations. Each AOC is briefly described below with work performed, findings, and planned investigation/remediation:

AOC 1 – Former PCB-Containing Sludge Piles – An area located at the confluence of the 1070, 1132, and 1146 Seneca Street properties at one time contained piles of PCB-containing sludge. These piles were removed along with the impacted underlying soils and backfilled with clean soil. As documented in the Dames and Moore report, analytical results of the post excavation confirmation samples and backfill material did not detect PCBs above SCO criteria. The report does not indicate whether the analytical data was validated. No additional investigation or remediation is planned at this location.

AOC 2 – Former UST Location - Information from the 2007 Phase I ESA indicates a UST was removed from an outdoor area just west of the 1132 building. Borings drilled in 2001 and 2008 confirmed the presence of backfill material to a depth of 11 feet at this location and samples from this area did not contain constituents of concern. No additional investigation or remediation is proposed at this AOC.

AOC 3 – Former Gas Station – Results of a records review performed as part of the 2007 Phase I ESA indicate that a gasoline filling station was formerly located on the south side of the 1146 property. A geophysical survey was performed in this area and did not indicate the presence of buried tanks. Five soil borings have been drilled and sampled in this area with no significant petroleum contamination found. Additional investigation is planned in this area to characterize the groundwater (if present) surface and subsurface soils.

AOC 4- PCB-Impacted Interior Loading Dock – Soil/fill samples collected from beneath the floor of the interior loading dock in the 1132 Building contain up to 3500 PPM of PCBs. An Interim Remedial Measure (IRM) involving removal of these PCB-impacted soils is planned as part of the RI as further detailed in this work plan.

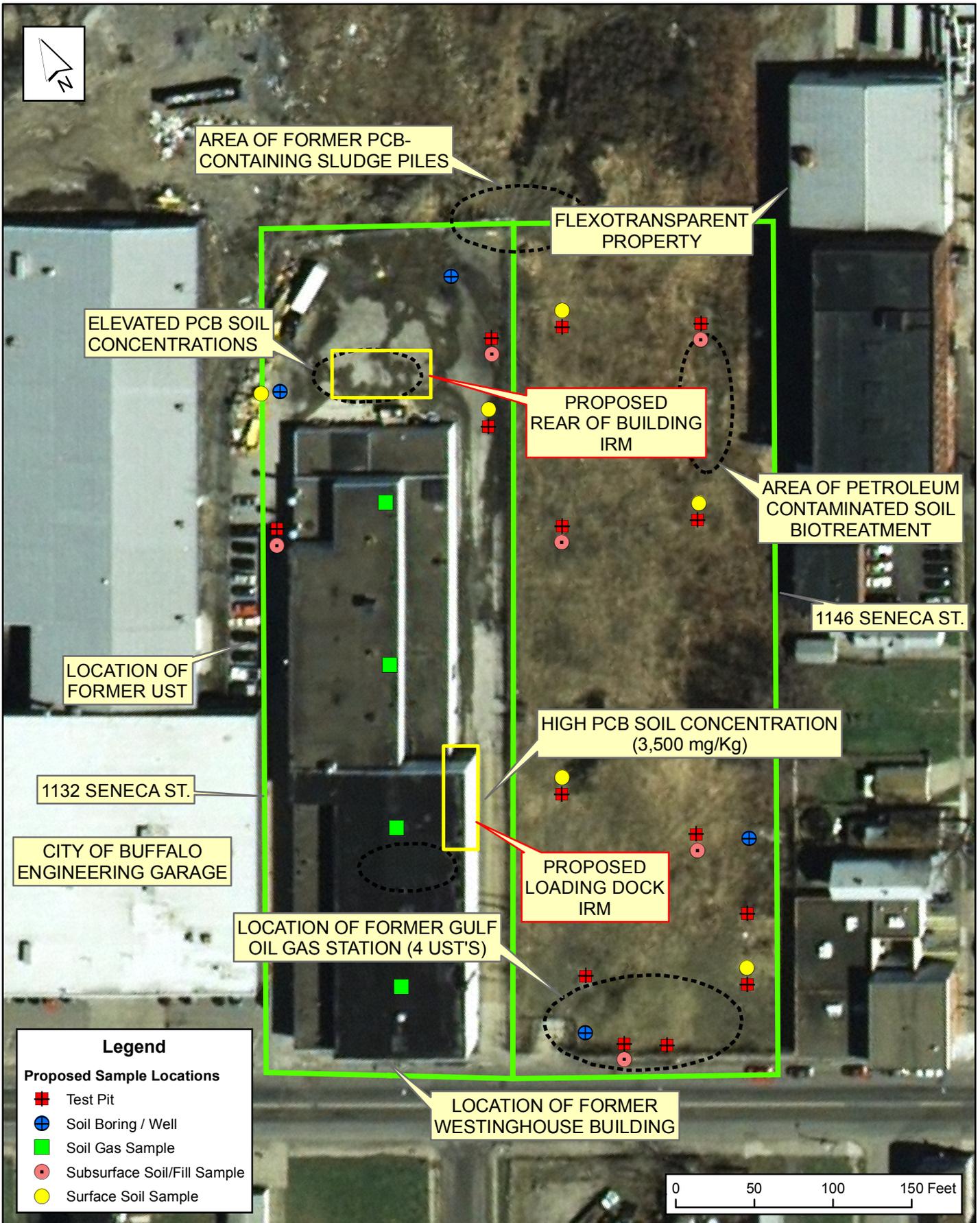
AOC 5 – Area of Elevated PCBs – In 2001 Evergreen Environmental drilled and sampled a grid of 15 soil borings in an area north of the 1132 building to delineate the magnitude and extent of PCB-impacted soil/fill at this location. PCB concentrations up to 20.6 PPM were confirmed in this area. An Interim Remedial Measure (IRM) involving removal of these PCB-impacted soils is planned as part of the RI as further detailed in this work plan.

AOC 6 – Reported Biopad for Petroleum Contaminated Soil – A concrete pad, apparently a former building foundation, was allegedly also used for spreading of petroleum-impacted soil for bio-remediation. This use has not been confirmed but site inspections revealed no indication of petroleum staining on or around the pad and a soil sample collected from near the pad did not contain organics at significant concentrations. Additional surface and subsurface soil sampling is planned near this pad.

The BCP Site has not been completely characterized. The proposed RI will better characterize the aforementioned AOCs and other areas of the BCP Site where sampling was not performed. Samples will be collected not only from the surface and subsurface soil/fill but also soil gas and groundwater (if present). Data collected during the RI will be used to identify potential health risks and to evaluate remedial alternatives other than those already planned as interim remedial measures (IRMs). Implementation of the anticipated IRMs is based on the analytical results that identified elevated PCB concentrations in soils samples collected in the railroad loading dock area and the undeveloped grassed area immediately north of the building at 1132 Seneca.

The investigation will include excavation of 14 shallow test pits, advancement and installation of five groundwater monitoring wells. Completion of the aforementioned sampling points will facilitate the collection of six surface soil/fill, six subsurface soil/fill, four soil vapor samples, and up to four groundwater samples.

Subsequent to NYSDEC approval of the RI Work Plan and Citizens Participation Plan and Health and Safety Plan, (Appendix B and C respectively) and requisite public comment period, Malcolm Pirnie will initiate the remedial investigation and prepare a report of findings. A minimum of four days notice will be given to the NYSDEC Project Manager prior to the start of any BCP field activities. The major tasks and elements associated with this Work Plan are described in detail within this section. Proposed IRM locations are illustrated on **Figure 3-1**. Actual post-excavation IRM sample locations will vary based on field conditions/observations and logistics. **Table 3-1** provides a summary of samples to be collected during the RI.



Legend

Proposed Sample Locations

- Test Pit
- Soil Boring / Well
- Soil Gas Sample
- Subsurface Soil/Fill Sample
- Surface Soil Sample

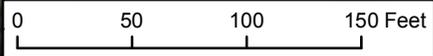


TABLE 3-1

**Analytical Program Summary
Remedial Investigation
1132 and 1146 Seneca Street Site
Buffalo, New York**

Sample Media	Number of Samples				Analyses
	Field Samples	Duplicates	MS/MSD Samples	Trip Blanks	
Surface Soil Samples (6 from test pit/ soil borings)	6	1	1/1	1	TCL SVOCs TCL PCBs, TAL Metals and cyanide
Subsurface Soil/fill (6 from test pits and/or soil boring)	6	1	1/1	1	TCL VOCs TCL SVOCs TCL PCBs, TAL Metals and cyanide
IRM concrete/rail samples	4	0	0	0	TAL PCBs
IRM confirmation samples (12 – six per excavation)	12	2	2/2	2	TAL PCBs,
Groundwater (up to 4 temporary monitoring wells)	4	1	1/1	1	TCL VOCs TCL SVOCs TCL Pesticides, PCBs TAL total Metals and cyanide
Sub-Slab Soil Vapor (4 sample points)	4	1	0	0	TO15 VOCs

Notes: MS = matrix spike
MSD = matrix spike duplicate
SVOCs = semivolatile organic compounds
TAL = target analyte list
TCL = target compound list
TO15 = Analytical method for VOCs in air
VOCs = volatile organic compounds

3.1. Soil/Fill Characterization

3.1.1. Surface Soil Sampling Program

To better characterize surface soils within the BCP Site boundaries, the uppermost 2 inches of soil/fill will be collected at nine sampling locations chosen to represent conditions unique to specific areas and/or proximity to known contaminant impacts. All surface soil samples will be collected at the same locations as proposed shallow test pit locations and analyzed for Target Compound List (TCL) Semi Volatile Organic Compounds (SVOCs), polychlorinated biphenyls (PCBs) and target analyte list (TAL) metals with cyanide.

As shown on the **Figure 3-1**, three surface soil samples will be collected in the unpaved/undeveloped areas of the 1132 property; whereas, six samples will be collected at representative sample locations within the 1146 property.

3.2. Subsurface Investigation

3.2.1. Test Pit /Soil Boring Program

Discussions with representatives of the NYSDEC formulated a scope of work that includes test pit excavation and soil sampling throughout the BCP Site to thoroughly characterize the surface and subsurface soil/fill and groundwater media.

A test pit excavation/soil boring program will be implemented to further characterize areas of concern identified during previous site investigations and to better characterize the overall Site soil/fill material and shallow groundwater, where present. The soil/groundwater sampling program will require the excavation and/or advancement of up to 17 test pits and five soil borings advanced at predetermined Areas of Concern (AOCs) and at other locations of the BCP Site that have not yet been fully characterized. Proposed test pit/borehole locations as depicted in **Figure 3-1** may be adjusted in the field based on Site conditions, accessibility, or other logistical concerns.

Test Pits

Approximately 17 shallow test pits will be excavated to investigate possible soil/fill contamination. Test pits will be excavated to a depth sufficient to expose the underlying native silty clay layer or to refusal. The excavator used for the test pits will be capable of efficiently digging through compacted stone, asphalt, and concrete rubble as necessary. We anticipate that all test pits will be completed and backfilled (with the excavated materials) during a 2-3 day work period. Soil/fill samples will be collected from the test pits shown on **Figure 3-1** based on screening criteria described below in subsection 3.2.2. For budgeting purposes, it is assumed that a total of 9 subsurface soil/fill samples will be collected and analyzed from the test pits.

3.2.2. Subsurface Soil/Fill Sampling

A drilling rig capable of advancing a borehole using direct push drilling methods will be used to advance five soil borings through the soil/fill and a minimum of two feet into the underlying native clay soil. Based on documented subsurface data collected from more than 40 Phase II investigation borings within the BCP Site, the depth to native soil ranged from less than 1.0 feet below ground surface (bgs) to a maximum of 12 feet bgs. The depth of the native soil material in the proposed area(s) of investigation is anticipated to be 3-4 feet bgs. The planned drilling method advances and retrieves soil core samples at four foot intervals; therefore the total depth of the borings is anticipated to be a maximum of eight feet. If however contaminant impacts or lithologic/saturated conditions warrant, select borings may be advanced deeper to better characterize subsurface conditions.

Upon retrieval of each soil/fill core, the soil/fill samples will be screened for total organic vapors using a photo-ionization detector (PID). The organic vapor measurements will be recorded and the soil/fill material described on boring logs by a Malcolm Pirnie geologist. Subsurface soil samples will be collected for chemical analysis as warranted or preferentially at the boring locations shown on **Figure 3-1**. The depth from which samples are collected will be determined based on screening results of visual and olfactory observations and PID measurements. Samples will be collected from the discrete depth interval that displays the greatest evidence of contamination, if present. Subsurface fill samples will be analyzed for TCL VOCs and SVOCs, Pesticides, PCBs, TAL metals, and cyanide.

For cost estimating purposes, the five boreholes advanced by drilling methods will be converted to temporary groundwater monitoring wells as it has been assumed that not every boring will be sampled for soil characterization and that a total of nine subsurface soil/fill samples will be collected from the soil borings and test pits. A summary of proposed samples and analyses is provided in **Table 3-1**.

All non-dedicated, downhole sampling equipment will be decontaminated between soil boring locations in accordance with accepted drilling practices using a high-pressure hot water “steam” cleaner or scrubbed usingalconox and a hot water wash followed by clean potable water rinse. Subsequent to borehole advancement at each boring location, a temporary monitoring well will be installed if saturated conditions are identified, or the boring will be grouted from total depth to grade level with a grout mixture of 95% cement and 5% bentonite.

3.2.3. Groundwater Monitoring Well Installation and Sampling

3.2.3.1. Site Hydrogeologic conditions

To date, a total of 41 soil borings were advanced during the Phase II investigations of the Site. The borings provide sufficient information to facilitate an understanding of the

shallow hydrogeologic conditions across the BCP Site. With few exceptions, the Phase II borings were typically advanced to depths of 4 to 8 feet bgs with select borings located in the former UST area completed as deep as 12 feet bgs. As described above in Section 1.3, the uppermost soil/fill material identified at each drilling location generally consisted of disturbed sand with silt and clay admixed with C&D debris. The soil/fill thickness across the Site varied from a minimum 0.6 ‘as measured in the vacant 1146 property to a maximum thickness of 11.0’ measured in the former UST area.

Directly beneath the soil/fill layer is native soil which is described as a gray-brown sand and silt with trace clay and fine gravel. The sandy –silt unit transitions with depth to a stiff brown clay or silty clay unit that is correlative across the site. The clay aquitard is characterized as dense with weak plasticity due to trace amounts of silt and sand laminae within the clay matrix. The clay/silty clay unit was generally encountered at an average depth of approximately four-five feet below grade. Based subsurface data and geologic publications and experience at nearby investigation sites, the clay layer at this Site is believed to be continuous and greater than 15’ feet thick. Such a clay layer would greatly impede downward migration of groundwater (and dissolved contaminants if present in the groundwater) to deeper groundwater in the underlying bedrock.

A perched or confined groundwater condition was encountered at only 4 of the 41 borings drilled on Site all of which were located on the 1132 property in thickened fill areas of the west and north sides. Based on the hydrogeologic conditions encountered during the investigations described above, groundwater will not be encountered at the depth of interest at most locations drilled during the RI. If however, a saturated groundwater condition is encountered, a monitoring point will be installed and the groundwater sampled and analyzed. For cost estimating purposes, it has been assumed that groundwater will be sampled at five borehole locations.

3.2.3.2. Monitoring Well Installation

Five soil borings will be drilled and completed as 1 inch PVC micro-wells to be used for measuring water levels and collecting groundwater samples. The locations will be determined after consultation with the NYSDEC project manager, but will also depend on the presence of saturated soils in the fill unit at the proposed monitoring well locations shown on **Figure 3-1**. Micro-wells will be installed after soil cores have established the presence of saturated conditions (and any soil samples have been collected from the selected borings). The micro-wells will be screened in the saturated overburden soils using sand-packed well screens. The total depth of the wells is expected to be within 15 feet of ground surface. Provided that each of the micro-wells yields sufficient water, groundwater samples will be collected from each of the micro-wells using low flow sampling methods. For budgeting purposes, it is assumed that four groundwater samples will be collected. At each location, field parameters of temperature, conductivity, pH, and turbidity will be measured before sampling.

3.2.3.3. Well Development

The newly installed monitoring wells will be developed no sooner than 24 hours after construction has been completed. The development procedure will require purging of the groundwater and periodically surging the water in the well to loosen and remove suspended fines from the well screen and sandpack. Measurements of the water volume removed and water quality parameters including temperature, pH, conductivity, and turbidity will be recorded at regular intervals throughout the development process. Development will continue until water quality measurements stabilize to within 10% of the previous measurement.

3.2.3.4. Groundwater Sample Collection

Groundwater will be collected from each temporary well using low flow sampling techniques by dedicated plastic flex tubing and a peristaltic pump. If low-flow sampling is not feasible due to insufficient groundwater recharge rate, new and dedicated disposable bailers may be used to collect the groundwater samples. If sufficient groundwater volume is available, each well will be sampled for TCL VOCs, SVOCs, Pesticides, PCBs, TAL metals, and cyanide.

Groundwater field parameters will be monitored during well purging prior to sampling including pH, specific conductivity, temperature, turbidity, and dissolved oxygen.

All groundwater samples will be collected in the precleaned and pre-preserved laboratory sample bottles in accordance with protocols for analyses shown on **Table 3-1**.

Appropriate QA/QC samples will be collected for the groundwater sampling event including one trip blank, one MS, one MSD, and one field duplicate sample. Subsequent to sample collection all groundwater samples will be placed on ice and shipped under chain of custody to the selected analytical laboratory.

3.3. Air Quality Characterization

Based on the results of previous environmental investigations conducted at the Site, subsurface soil/fill material on Site has been shown to contain volatile organic compounds (VOCs) and SVOCs including carcinogenic polycyclic aromatic hydrocarbons (PAHs). A potential pathway exists whereby these compounds in the vapor phase may migrate from the soil and could affect the quality of air in the on-Site building at 1132 Seneca Street. To evaluate the potential for intrusion of vapor originating from soil underlying the building, Malcolm Pirnie will collect and analyze four soil vapor samples from beneath the Site building. The proposed soil vapor sampling locations are shown on **Figure 3-1**.

The soil vapor samples will be collected by advancing a small (~1/2") diameter borehole to a maximum depth of 0.5' feet below the concrete slab floors of the buildings to allow for the installation of the soil vapor sampling device. A stainless steel sampling point

(KVA Shield Point or similar device) will be connected to Teflon-lined tubing and placed in the borehole. Clean silica sand will be poured around and a minimum of six-inches above the sampling point. A hydrated bentonite powder will then be used to seal the sampling point from the top of the sand pack to the floor surface.

A tracer gas will be used to validate the performance of the sample point seal. Helium tracer-gas testing will be conducted at each sample point to ensure that an effective seal has been established. The helium tracer gas test will be conducted as follows:

1. A small plastic bucket-like container will be placed inverted over the sampling point. The container will have three drilled holes for; helium introduction, ambient air release, and passage of the sample probe tubing.
2. The container will be filled with laboratory grade helium which will be measured using a helium detector to ensure greater than 90% concentration of helium in the container.
3. Using sampling tubing, a 3-way valve, and a disposable syringe, approximately 1 liter of air/vapor will be purged from the sample point to a Tedlar® bag at a consistent flow rate of less than or equal to 0.2 liters per minute. The sub-slab vapor will be purged into a Tedlar® bag to not influence the indoor air quality.
4. The Tedlar® bag will be tested outdoors using the helium detector capable of reading to PPM and percent levels and all readings meter readings will be recorded.
5. If concentrations > 10% of tracer gas are observed in the Tedlar® bag, the probe seal will be enhanced to reduce the infiltration of air and the seal retested as described above.

Prior to sample collection, an electric peristaltic pump capable of producing a vacuum of at least 20 inches of mercury will be used to purge air from the vapor sampling borehole. Soil vapor will be purged at a rate not greater than 0.2 liters per minute for 15 minutes. Following purging, a grab sample will be collected in a 6-liter Summa canister fitted with a one-hour regulator (using a sampling rate of 0.1 liters per minute) resulting in a sample collection period of one hour per sample.

The subsurface soil vapor samples will be collected from four sub slab sampling points and analyzed for VOCs by the analytical Laboratory using USEPA Compendium Method TO-15. The lists of compounds analyzed by method TO-15 as well as the method reporting limits are provided in **Table 3-2**.

3.4. Site Survey

A topographic base map of the Site will be prepared at a scale of one-inch equals 50 feet, with a one-foot contour interval. The map will be used to locate the site boundary and pertinent Site features including buildings, roadways, fences, as well as IRM, monitoring well and sample locations.

TABLE 3-2

TO 15 Target Compounds¹
Remedial Investigation
1132 and 1146 Seneca Street Site
Buffalo, New York

Compound	CAS Number	Proposed RL ppbv	NJTO15	Full TO15
Acetone (2-propanone)	67-64-1	5.0	X	X
Benzene	71-43-2	0.20	X	X
Bromodichloromethane	75-27-4	0.20	X	X
Bromoethene	593-60-2	0.20	X	X
Bromoform	75-25-2	0.20	X	X
Bromomethane (Methyl bromide)	74-83-9	0.20	X	X
1,3-Butadiene	106-99-0	0.20	X	X
2-Butanone (methyl ethyl ketone)	78-93-3	0.50	X	X
Carbon disulfide	75-15-0	0.50	X	X
Carbon tetrachloide	56-23-5	0.20	X	X
Chlorobenzene	108-90-7	0.20	X	X
Chloroethane	75-00-3	0.20	X	X
Chloroform	87-66-3	0.20	X	X
Chloromethane (methyl chloride)	74-87-3	0.20	X	X
3-chloropropene (allyl chloride)	107-05-1	0.20	X	X
2-chlorotoluene (o-chlorotoluene)	95-49-8	0.20	X	X
Cyclohexane	110-82-7	0.20	X	X
Dibromochloromethane	124-48-1	0.20	X	X
1,2-dibromoethane	106-93-4	0.20	X	X
1,2-dichlorobenzene	95-50-1	0.20	X	X
1,3-dichlorobenzene	541-73-1	0.20	X	X
1,4-dichlorobenzene	106-46-7	0.20	X	X
dichlorodifluoromethane	75-71-8	0.20	X	X
1,1-dichloroethane	75-34-3	0.20	X	X
1,2-dichlorethane	107-06-2	0.20	X	X
1,1-dichloroethene	75-35-4	0.20	X	X
1,2-dichloroethene (cis)	155-59-2	0.20	X	X
1,2-dichloroethene (trans)	156-605	0.20	X	X
1,2-dichloropropane	78-87-5	0.20	X	X
Cis-1,3-dichloropropene	10061-01-5	0.20	X	X
Trans-1,3-dichloropropene	10061-02-6	0.20	X	X
1,2-dichlorotetrafluoroethane (Freon 114)	76-14-2	0.20	X	X
Ethylbenzene	100-41-4	0.20	X	X
4-Ethyltoluene (p-ethyltoluene)	622-96-8	0.20	X	X
n-heptane	142-82-5	0.20	X	X
hexachlorobutadiene	87-68-3	0.20	X	X
n-hexane	110-54-3	0.20	X	X
methylene chloride	75-09-2	0.50	X	X
4-methyl-2-pentanone (MIBK)	108-10-1	0.50	X	X
MTBE (methyl tert-butyl ether)	1634-04-4	0.50	X	X
Styrene	100-42-5	5.0	X	X
Tertiary butyl alcohol (TBA)	75065-0	0.20	X	X
1,1,2,2-tetrachloroethane	79-34-5	0.20	X	X
Tetrachloroethene (PCE)	127-18-4	0.20	X	X
Toluene	108-88-3	0.50	X	X
1,2,4-trichlorobenzene	120-82-1	0.20	X	X
1,1,1-trichloroethane	71-55-6	0.20	X	X
1,1,2-trichloroethane	79-00-5	0.20	X	X
1,1,2-trichloro-1,2,2-trifluoroethane (Freon TF)	76-13-1	0.20	X	X
Trichloroethene (TCE)	79-01-6	0.20	X	X
Trichlorofluoromethane (Freon 11)	75-69-4	0.20	X	X
1,2,4-trimethylbenzene	95-63-6	0.20	X	X
1,3,5-trimethylbenzene	108-67-8	0.20	X	X
2,2,4-trimethylpentane	540-84-1	0.20	X	X
Vinyl chloride	75-01-4	0.20	X	X
Xylenes (m&p)	1330-20-7	0.20	X	X
Xylenes (o)	95-47-6	0.20	X	X
1,2-dichlorethene (total)	540-59-0	0.20		X
1,4-dioxane	123-91-1	5.		X
Isopropyl alcohol	67-63-0	5.0		X
Methyl butyl ketone	591-78-6	0.50		X
Methyl methacrylate	80-62-6	0.50		X
Naphthalene (upon request only)	91-20-3	0.50		X
tetrahydrofuran	109-99-9	5.0		X

¹NJ compounds have NJ-assigned compound names.

RL = Reporting limit

The base map will be prepared by a New York State licensed surveyor as a subcontractor to Malcolm Pirnie. All mapping will conform to specifications for size, distribution and content as established by the USGS National Mapping division. Digital mapping will be supplied on an AutoCADD 2008 drawing. The surveyor will establish the horizontal location and vertical elevations using the New York State Plane Coordinate System and most recent vertical datum. Elevations of the ground surface and top of PVC riser will be measured and recorded for each monitoring well.

As required under the BCP agreement, an ALTA survey will be completed after the RI as part of the overall Site development.

4. Interim Remedial Measures Scope of Work

As discussed above in Section 3.2, analytical results from previous investigation and a recently completed soil boring program identified elevated PCB concentrations in soil/fill material at two Areas of Concern located on the 1132 Seneca Street property. Impacted soil/fill material was found to extend from the surface to a depth of approximately two feet below ground surface (bgs) in the area adjacent to the loading dock and to a maximum depth of six feet bgs in the area rear of the building. The areal extent of the two impacted areas has not been completely delineated. The approximate location of the two AOCs are illustrated on **Figure 3-1**.

The remediation of these two impacted soil AOCs will be completed as Interim Remedial Measures (IRMs).

4.1. Objectives

The objectives of the IRMs are to:

- reduce the potential for exposure to PCB contaminated soil/fill
- reduce the potential for Site contamination to impact groundwater beneath the Site and off-Site locations,

The PCB impacted soil/fill at the interior loading dock is located beneath a concrete floor with one set of rail lines. The IRM at this location will require removal and off-site disposal of steel rails and concrete flooring. The concrete and steel will be characterized prior to off-site disposal.

Rail Sample - Each of the steel rails located inside of the building loading dock will be cleaned after removal using high pressure hot water. One representative cleaned rail will be sampled for PCBs using a wipe of a 5 x 20 (100 square) centimeter area per USEPA sample guidance.

Concrete Samples - The concrete slab within the interior loading dock is estimated to be 45' x 12' x 0.75' thick (15 cubic yards). Prior to removal of the concrete, one, five-point, composite sample is planned to be collected from each third (15' x 12') of the surface area. Chips of the upper 1 cm will be collected at each of the 15 locations and the three composite samples sent to the analytical laboratory for PCB analysis.

With the exception of the removal and disposal of the concrete floor and rails at the loading dock area, both IRMs will involve similar tasks, these include:

- A. Removal and off-site disposal of impacted soil/fill
- B. Post excavation soil sampling
- C. Backfill Placement
- D. Health and safety and monitoring

Each of these tasks is briefly described below:

A. Delineation of Extent and Removal of Impacted Soil/Fill

Initial dimensions of the impacted soil/fill excavation will be based on historical analytical results. As shown on **Figure 3-1**, an excavation measuring approximately 30' long and 10' wide will be extended laterally to encompass impacted soils in the loading dock area. The excavation area north of the building initially planned to be an area measuring 50' long and 30' wide. The depth of excavation will be limited based on the removal of unsaturated fill material sufficient to expose the underlying native soil or to the depth of groundwater saturation.

The impacted soil/fill will be removed using an excavator and placed either directly into trucks for off-site disposal, or stockpiled on plastic sheeting adjacent to the excavation pending characterization and subsequent disposal. To prevent possible runoff in the event of rain or high winds, stockpiled soil/fill will be covered with 6 mm polyethylene sheeting. A perimeter of hay bales will be positioned around the base of the soil pile to control runoff. The remedial contractor will be a requirement to dispose of hazardous waste (if generated) at an appropriately permitted facility within 90 days of waste generation.

All excavated soil/fill that exhibits evidence of additional contamination through screening (staining or elevated PID measurements) will be stockpiled separately and sampled and classified for reuse or disposal. Soil samples will be collected for each 50 cubic yards of excavated soil material in accordance with DER-10 5.4(f). Composite samples will be collected from five (5) locations within each stockpile. PID measurements will be recorded for each of the five composite sample locations, and one grab sample will be collected from the location with the highest PID measurement of the five composite locations. The composite sample will be analyzed by a NYSDOH ELAP-certified laboratory for Target Compound List (TCL) semivolatile organic compounds (SVOCs), PCBs, and TAL metals using current NYSDEC Analytical Services Protocols (ASP). Additionally, the grab sample will be analyzed for TCL volatile organic compounds (VOCs). Existing analytical soils data will be used to supplement characterization of stockpiled soil materials.

B. Post Excavation Soil Sampling

Subsequent to excavation, soil samples will be collected within defined lateral boundaries of the proposed remediation area to confirm complete removal relative to the Restricted Commercial Use SCO for PCBs (1 PPM). A representative soil sample will be collected from the base of the excavation and vertical face of each of the excavation boundaries and analyzed for PCBs. Should analytical results detect PCB concentrations in excess of 1 PPM, the area of excavation will be extended and the working face re-sampled for PCBs.

For purposes of cost estimation, a total of six soil samples will be collected at each AOC and will include the required QA/QC samples.

Soil samples from the two AOCs will be analyzed by the analytical methods listed in the Table 1 below.

Table 1 1132 & 1146 Seneca Street BCP Site IRM Post Excavation Soil Sampling						
<i>ANALYTICAL PARAMETERS AND METHODS</i>						
Parameters	Method	Soil	Quality Control			Total
			MS	MSD	DUPL	
PCBs	8082	12	1	1	1	15

C. Backfill Placement

Soil brought to the Site as backfill shall be brought from an approved source and be compliant with the regulatory standards as set forth in DER-10 5.4(e). Also the backfill may be comprised of soil or other unregulated material as defined in 6 NYCRR Part 375 Part 6.7(d) which states that the soil not exceed the applicable soil cleanup objectives as identified in Tables 375-6.8(b), the lower of the protection of groundwater or the protection of public health soil cleanup objectives, for the intended use of the site.

The analytical data required to demonstrate that imported backfill soil material is compliant with the standards set forth in DER-10 shall be determined based on the recommended number of soil samples collected in accordance with Table 5.4 as referenced in DER-10 5.4(e) 3.

Reuse of excavated soil material from the site will be provisional based on compliance standards identified in DER-10 5.4(e) 4. However, based on requisite testing analytical results, possible site-specific exemption for backfill requirements may be petitioned in accordance with DER-10 5.4 (e)(8)(9ii).

Possible Site specific exemption for the analytical testing requirements may be possible, based upon documentation of the origin and composition of the material.

D. Site Safety and Monitoring

A Site Specific Construction Health and Safety Plan has been prepared and will be implemented during the IRMs. Air within the breathing zone will be monitored for volatile organic vapors using a PID and for airborne dust using a random aerosol monitor both at the work site and periodically downwind. The work site will be surrounded by temporary construction fencing and appropriate warning signage to keep the public away from potential physical hazards of the work site. The excavation will be backfilled as necessary based on the design of the redevelopment plans.

4.2. Hazardous Materials Inventory, Characterization, Removal, and Disposal

Between August 2007, the date of the Phase I ESA site reconnaissance, and March 2008 when the field work for the Phase II ESA was performed at the 1132 property, significant removal actions were completed. At the time of Phase I, the property owner at the time, Fiberright, was in the process of vacating the premises and removing their equipment, supplies, and waste products from the property, both inside and outside of the building. Two concrete-lined sumps in the floor of the buildings northern half were also reportedly emptied of liquids during this process.

According to the site representative, with the exception of impacted soils, any and all hazardous wastes and waste products were removed from the site at that time, however, documentation of this has not yet been obtained.

As part of the scope of work of the remedial contractor, a survey of the 1132 property will be conducted for the presence of hazardous and suspected hazardous materials. If such materials are found by the remedial contractor they will be characterized as necessary for proper off-site disposal at a permitted hazardous waste disposal facility.

Also as part of the remedial contractor's scope of work, the two concrete floor sumps will be evaluated for the presence of liquid. If liquid is present in either or both sumps, the liquid will be sampled for analysis of Target Compound List VOCs, SVOCs, PCBs, Pesticides, and Target Analyte List metals and cyanide. If contaminants of concern are confirmed in the sump liquid, the sumps will be pumped out, the liquid properly disposed

and the sumps cleaned using high pressure hot water. Investigation-derived waste from the cleaning process will also be handled in accordance with local, state, and federal regulations.

5. Qualitative Human Health Risk Assessment

A qualitative human health risk assessment will be conducted to determine if the presence and concentrations of chemicals in the environmental media at the Site pose potential human health concerns. The assessment will encompass both on-Site and off-Site risks with the results of the exposure analysis used as one of the criteria to determine the most appropriate future actions at the Site. These may range from no further action, to additional data collection, to quantitative health risk assessment and the establishment of risk-based action levels. The assessment will begin with the construction of a conceptual Site model, a graphic illustration that outlines chemical source areas, possible chemical release mechanisms, environmental media that currently show or may show in the future the presence of chemicals, possible exposure pathways, possible points of exposure for human receptors, possible exposure routes, and possible human receptors. The conceptual model will be based on current Site conditions and surrounding land use as well as the planned future Site and surrounding land uses. For environmental media that may be of concern, qualitative evaluations will be made for the four components that typically comprise a health risk assessment: data evaluation; exposure assessment; toxicity assessment; and risk characterization/uncertainty analysis. In the data evaluation, chemical concentrations in the various media will be compared to appropriate NYSDEC risk-based standards and criteria (e.g., NYSDEC Soil Cleanup Objective and Cleanup Levels, Water Quality Standards, etc.). Chemicals detected in concentrations greater than these standards and criteria will be identified as chemicals of potential concern. In the exposure assessment, an evaluation will be made of the likelihood and magnitude of exposure to the chemicals of potential concern in environmental media of concern. This will involve outlining possible exposure routes and plausible exposure times, frequencies, and durations. In the toxicity assessment, the toxicity of the chemicals of concern will be outlined. This will include identifying known or suspected carcinogens and/or the target organ/system of concern for noncarcinogenic effects. In the risk characterization, information from the three components will be integrated, to estimate the likelihood and magnitude of possible health risks.

Fact sheets documenting the goals and progress of the project will be prepared at key milestones of the project and distributed to those on the project mailing list. The distribution list is included in the Citizens Participation Plan which is provided in **Appendix C**.

6. Quality Assurance /Quality Control (QA/QC)

6.1. Analytical Methods

All samples collected during the BCP Remedial Investigation will be analyzed using EPA-approved analytical methods that follow the most recent edition of the EPA's "Test Methods for Evaluating Solid Waste" (SW-846), Methods for Chemical Analysis of Water and Wastes" (EPA 600/4-79-020), and Standard Methods for Examination of Water and Wastewater" (prepared and published jointly by the American Public Health Association, American Waterworks Association and Water Pollution Control Federation).

6.2. Laboratory

The subcontracted laboratory will be certified by the New York State Department of Health to perform Contract Laboratory Program (CLP) analysis on all media to be sampled during this investigation. The laboratory will perform the sample analysis in accordance with the most recent NYSDEC Analytical Services Protocol (ASP).

6.3. Data Submittal

Analytical data will be submitted in complete ASP category B data packs. Procedures for chain of custody, laboratory instrumentation calibration, laboratory analyses, reporting of data, internal quality control, and corrective actions shall be followed as per SW-846 and as per the laboratory's Quality Assurance Plan. Where appropriate, trip blanks, field blanks, field duplicates, and matrix spike, matrix spike duplicate shall be performed at a rate of 5% and will be used to assess the quality of the data. The laboratory's in-house QA/QC limits will be utilized whenever they are more stringent than those suggested by the EPA methods.

6.4. Data Usability Summary Report

The data package will be sent to a qualified, independent, data validation specialist for evaluation of the accuracy and precision of the analytical results. A Data Usability Summary Report (DUSR) will be prepared to describe the compliance of the analyses with the analytical method protocols detailed in the NYSDEC Analytical Services Protocol (ASP). The DUSR will provide a determination of whether the data meets the project-specific criteria for data quality and data use. The validation effort will be completed in accordance with NYSDEC Division of Environmental Remediation DUSR guidelines.

7. Health and Safety

Field tasks will be performed using industry standard health and safety procedures. A site-specific Health and Safety Plan (HASP) has been prepared for use by the field team during all field activities. This plan details known and potential hazards of the Site and field tasks as well as air monitoring and emergency procedures. The HASP is presented in **Appendix D**.

7.1. Community Air Monitoring

Most of the planned RI work will be completed outdoors on the property surrounding the existing build at 1132 Seneca Street. Where intrusive drilling or excavation operations are planned, community air monitoring will be performed to protect the downwind community. A Malcolm Pirnie representative will continually monitor the breathing air in the vicinity of the immediate work area using PID instrumentation capable of measuring total volatile organic compounds in air at concentrations as low as 1 part per million (PPM). The air in the work zone also will be visually monitored for dust generation. If sustained VOC measurements above 5 PPM, or visible dust generation is observed, the intrusive work will be temporarily halted and a more rigorous monitoring of VOCs and dust using recordable meters will be implemented in accordance with the NYSDOH Generic Community Air Monitoring Plan (CAMP). A copy of the CAMP is provided with the Health and Safety Plan in **Appendix D**.

8. Project Organization

Malcolm Pirnie has established a project team for the Flexo 1132 & 1146 BCP Site whose collective qualifications and experience are strongly suited for successful completion of the project. The proposed responsibilities of the key staff are summarized below:

Kent McManus, PE, will be the Project Manager for the work. In this capacity Mr. McManus will be responsible for the successful completion of each task including coordination and supervision of engineers and scientists, and adherence to the work plan, schedule and budget.

Jim Richert, CPG, will be the Quality Leader, responsible for the development of the work plan, coordination of subcontractors, direction of the field program including maintaining quality assurance policies that pertain to all aspects of sampling, well drilling and development.

Evonne Bogacki, will be the field geologist responsible for implementing the field effort. Responsibilities will include sample collection, well development and directing Malcolm Pirnie's drilling subcontractors, and ensuring the successful completion of all field activities.

Shi Ng, will be the Quality Assurance Officer (QAO). Mr. Ng will assist the project manager in the development of the work plan, interface with the laboratory to make requests and resolve problems and interface with the data validator during development of Data Usability Summary Reports.

9. Reporting

Following receipt of the validated analytical results, Malcolm Pirnie will prepare a Remedial Investigation (RI) Report. The RI report will include a description and summary of field work performed; analytical results, field data summary tables, soil boring and well construction logs, maps and figures necessary to clearly describe the work performed and the resultant findings. The report will also include Malcolm Pirnie's recommendations for further characterization of the Site, if necessary. If, as anticipated, no further characterization is necessary, the RI Report will include a Qualitative Human Health Exposure Assessment (QHHEA). If additional investigation is required, the QHHEA will be completed following the receipt of validated results of the additional characterization work. The QHHEA is useful in identifying potential at risk human populations of on-site chemicals of potential concern (COPCs) under current use and current/future site use scenarios. Results of the QHHEA are used to determine if the site poses a significant health threat and if site remediation is warranted.

Contingent on the results of analytical testing performed during the course of the remedial investigation, an RWP will be prepared with an inclusive AA report section. The Plan will define remedial action objectives (RAOs) and will evaluate selected remedial alternative(s) to facilitate a baseline Track 2 restricted residential/commercial use cleanup goal. The NYSDEC Project Manager will be consulted prior to selection of potential RAOs and remedial alternatives. Development of the AA will be in accordance with DER-10 sub-section(s) 4.4 (c)(1)(2)(3) and 4.4 (d)(2) and will consider the following criteria:

- Overall protection of Human Health and the Environment
- Compliance with Standards, criteria, and Guidance (SCGs)
- Long-term effectiveness
- Reduction of toxicity, mobility or volume
- Short-term effectiveness
- Implementability
- Cost
- Community Acceptance

In addition to the AA, the RWP will include:

- Remedial action objectives
- Cleanup levels to be attained

- A detailed description of the recommended remedy.
- SMP checklist, FER checklist, and Soil Management Plan template

10. Project Schedule

A schedule showing the planned remedial investigation activities and assessment of remedial alternatives is included in **Figure 10-1**.

11. References

Dames & Moore, 10/1991, Removal of Contaminated Soil, Eastern Electric Facility, Buffalo, New York.

Evergreen Testing & Environmental Services, 9/2001, Additional Environmental Evaluations, Fibreright Manufacturing Facility, 1132 Seneca Street, Buffalo, New York.

Malcolm Pirnie, Inc., 9/2007, Phase I Environmental Site Assessment, 1132 and 1146 Seneca Street, Buffalo, New York

Malcolm Pirnie, Inc., July 2008, Phase II Environmental Site Assessment, 1132 Seneca Street, Buffalo, New York.

Malcolm Pirnie, Inc., July 2008, Phase II Environmental Site Assessment, 1146 Seneca Street, Buffalo, New York.

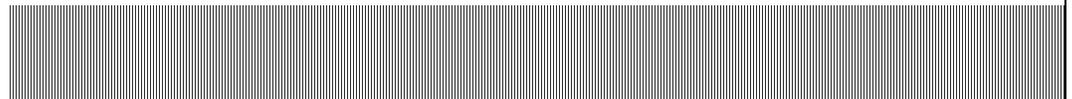
Flexo Transparent, Inc.

Brownfield Cleanup Program / Remedial Investigation Work
Plan and Interim Remedial Measures Work Plan

Appendix A

**Malcolm Pirnie Inc.,
Phase I ESA Report**

1132 and 1146 Seneca Street (on CD)



Flexo Transparent, Inc.

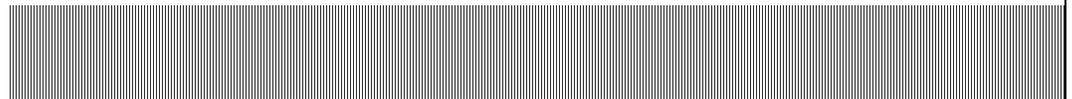
Brownfield Cleanup Program / Remedial Investigation Work
Plan and Interim Remedial Measures Work Plan

Appendix B

Malcolm Pirnie, Inc.,

Phase II ESA Reports

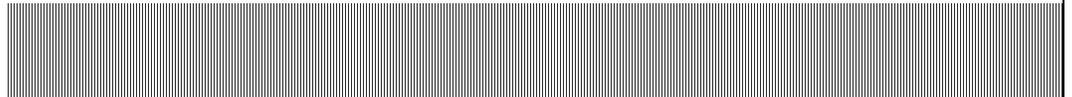
1132 and 1146 Seneca Street (on CD)

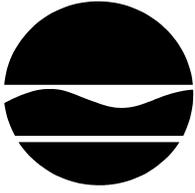


Flexo Transparent, Inc.
Brownfield Cleanup Program / Remedial Investigation Work
Plan and Interim Remedial Measures Work Plan

Appendix C

Citizen Participation Plan





New York State Department of Environmental Conservation

Brownfield Cleanup Program

Site # C915228

Citizen Participation Plan for the Flexo 1132 & 1146 Seneca Street Site

1132 – 1146 Seneca Street
City of Buffalo
Erie County, New York

February 2009

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Appendix A – Site Location Map

Appendix B – Project Contacts and Document Repositories

Appendix C – Brownfield Site Contact List

Appendix D – Identification of Citizen Participation Activities

Appendix E – Brownfield Cleanup Program Process

* * * * *

Note: The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the Brownfield site’s remedial process.

Applicant: **Flexo Transparent, Inc.**
Site Name: **Flexo 1132 & 1146 Seneca Street Site**
Site Address: **1132 - 1146 Seneca Street Site**
Site County: **Erie County**
Site Number: **C915228**

1. What is New York’s Brownfield Cleanup Program?

New York’s Brownfield Cleanup Program (BCP) is designed to encourage the private sector to investigate, remediate (clean up) and redevelop brownfields. A Brownfield is any real property where redevelopment or reuse may be complicated by the presence or potential presence of a contaminant. A Brownfield typically is a former industrial or commercial property where previous operations may have resulted in contaminant impacts to air, soil and groundwater media. A Brownfield can pose environmental, legal and financial burdens on a community. If the Brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants that conduct Brownfield site remedial activities.¹ An Applicant is a person whose request to participate in the BCP has been accepted by NYSDEC. The BCP contains investigation and remediation (cleanup) requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at: www.dec.ny.gov/chemical/8450.html .

2. Citizen Participation Plan Overview

This Citizen Participation (CP) Plan provides members of the affected and interested public with information about how NYSDEC will inform and involve them during the investigation and remediation of the site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Appendix A contains a map identifying the location of the site.

Project Contacts

¹ “Remedial activities”, “remedial action”, and “remediation” are defined as all activities or actions undertaken to eliminate, remove, treat, abate, control, manage, or monitor contaminants at or coming from a Brownfield site.

Appendix B identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's remedial program. The public's suggestions about this CP Plan and the CP program for the site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

Document Repositories

The locations of the site's document repositories also are identified in **Appendix B**. The document repositories provide convenient access to important project documents for public review and comment.

Site Contact List

Appendix C contains the Brownfield site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and remediation process. The brownfield site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming remedial activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.

The Brownfield site contact list includes, at a minimum:

- chief executive officer and official(s) principally involved with relevant zoning and planning matters of each county, city, town and village in which the site is located;
- residents, owners, and occupants of the site and properties adjacent to the site;
- the public water supplier which services the area in which the site is located;
- any person who has requested to be placed on the site contact list;
- the administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility;
- document repositories.

Where the site or adjacent real property contains multiple dwelling units, the Applicant will work with NYSDEC to develop an alternative method for providing such notice in lieu of mailing to each individual. For example, the owner of such a property that contains multiple dwellings may be requested to prominently display fact sheets and notices required to be developed during the site's remedial process. This procedure would substitute for the mailing of such notices and fact sheets, especially at locations where renters, tenants and other residents may number in the hundreds or thousands, making the mailing of such notices impractical.

The Brownfield site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in **Appendix B**. Other additions to the Brownfield site contact list may be made on a site-specific basis at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

CP Activities

Appendix D identifies the CP activities, at a minimum, that have been and will be conducted during the site's remedial program. The flowchart in **Appendix E** shows how these CP activities integrate with the site remedial process. The public is informed about these CP activities through fact sheets and notices developed at significant points in the sites remedial process.

- **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a Brownfield site, and the nature and progress of efforts to investigate and remediate a Brownfield site.
- **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a Brownfield site's investigation and remediation.

The public is encouraged to contact project staff at any time during the site's remedial process with questions, comments, or requests for information about the remedial program.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 6 or in the nature and scope of remedial activities. Modifications may include additions to the Brownfield site contact list and changes in planned citizen participation activities.

3. Site Information

Site Description

Currently, the Site is characterized as being a commercially developed vacant office and former manufacturing building situated on approximately 4-acres of land located at 1132 and 1146 Seneca Street in the City of Buffalo, Erie County, New York. The Site is located approximately ½ mile north of the west flowing Buffalo River. The property is bordered to the north by vacant land and railroad tracks with developed properties that include a City of Buffalo equipment garage on the west with commercial and residential properties located on the south and east perimeters. The Site location is depicted on **Figure 1-1 in Appendix A**.

Site History

As shown on Figure 1-1, the property located at 1132 Seneca Street consists of one parcel identified by Erie County's GIS website as Parcel 83423. The property which has been developed is approximately 1.7 acres in size and is zoned for "Manufacturing and Processing". The property improvements include a now vacant manufacturing building that once housed office, warehouse, and manufacturing areas. The building occupies the majority of the property. The construction date of the Site building is estimated to be 1920.

Site operations on the 1132 property included lumber and railroad yards, manufacture of fiberglass railroad transfer platforms (Fibreright) and transformers and machines (Westinghouse

and Eastern Electric). The northern, eastern, and western portions of the Site are enclosed within a chain link fence. Paved access roads that lead to an unpaved dirt/gravel area on the north side of the building are located along the western and eastern property boundaries. The northern area is a vacant crushed stone and grass covered area where fiberglass platforms, a dumpster, and plastic and metal refuse are staged. The southern boundary of the Site is Seneca Street, where two large garage doors provide access to the manufacturing building. Overgrown shrubs located along the chain link fenced perimeter of the 1146 Seneca Street property are located east of the 1132 building.

The easternmost property located at 1146 Seneca Street consists of one parcel identified by Erie County's GIS website as Parcel 83422. The property which is approximately 2 acres in size is zoned "Vacant Industrial" and is overgrown with vegetation and tall shrubs. A rectangular concrete pad that measures approx. 125' x 20' is located on the property. Although the intended use of the pad is unknown, information obtained during a Phase I Environmental Site Assessment file review indicated that a bioremediation pad was formerly located on the 1146 Seneca Street property and was used for remediation of petroleum impacted soils excavated from an adjacent property.

Historic working operations on the 1146 property have been documented as including lumber and, railroad yards, clay products manufacturing, and a gasoline filling station. A portion of the property may also have been used by Westinghouse and Eastern Electric for manufacture of transformers and machines. Existing conditions at the Site include a surrounding chain link fence and a locked access gate located along the southern boundary. Abandoned playground equipment associated with the Seneca-Babcock Community Center is located in the southeastern portion of the property adjacent to foundation remnants of the former gas filling station. Flexo's manufacturing building is located adjacent to the northeastern portion of the 1146 Seneca Street property.

Environmental History

To date, there have been environmental investigations completed at the Site, a Phase I Environmental Site Assessment (ESA) and a two Phase II subsurface soil investigations.

The following is a general summary of the previous investigations performed at the Site. Information for this summary was obtained from copies of reports, or portions of reports, made available by representatives of Flexo Transparent and/or the consultant. This summary is intended to provide a general idea of the previous and current Site conditions and should not be considered a complete presentation of past environmental activities at the Site.

September 2007 – Phase I ESA

A Phase I Environmental Site Assessment (ESA) completed by Malcolm Pirnie, Inc. in September 2007 identified Recognized Environmental Conditions (RECS) and de minimis

conditions at the Site. The RECs and de minimis conditions found during the ESA are listed below by the property tract in which they were identified:

1132 SENECA STREET

- Significant staining and cracking of the concrete floor within the manufacturing building was evident.
- “Oily-greasy” stained soil was observed in the grassed area located north of the manufacturing building. The stained soil was found proximate to an area of PCB impacted soil/sludge piles for which there is no documented remedial action.
- A limited subsurface investigation completed in 2001 identified elevated PCB concentrations in soil samples collected in the grassed staging area located immediately north of the manufacturing building and in the railroad loading dock area.
- Based on the age and condition of the manufacturing building, asbestos containing materials (ACM) and lead based paint may be present as a de minimis condition.

1146 SENECA STREET

- As documented in a 2001 investigation report, evidence of the bio-treatment of petroleum contaminated soil characterized as “oily-greasy” soil was observed in the central portion of the 1146 property.
- Soil samples collected adjacent to a former gasoline filling station in the southeast quadrant of the 1146 property identified slightly elevated VOC concentrations in excess of selected STARS criteria.

Subsurface Soil Investigation

July 2001 – Working on behalf of Fibreright Manufacturing, Inc., the consulting firm of Evergreen Testing and Environmental Services, Inc. was subcontracted to perform a limited environmental sampling and subsurface investigation of the properties located at 1132 and 1146 Seneca Street. The investigation was implemented based on environmental concerns identified in previous soil sampling and data review reports dated January, 1999 and May, 2001, respectively. Based on a review of historic Sanborn maps and documented on-site work practices, a geophysical and limited subsurface investigation was conducted to better characterize existing environmental conditions.

A non-invasive geophysical investigation was completed to further investigate areas of suspected or known USTs on the 1132 and 1146 properties. Results of the gridded survey identified a total

of five magnetic anomalies designated A –E of which four were attributed to be concrete pad foundations. Based on the findings of the geophysical investigation and suspected areas of contamination, a total of 32 soil borings were drilled in areas of interest within the BCP Site. Borings were typically advanced to a nominal depth of 6-8' bgs but were advanced to a maximum depth of 12' bgs in a former UST area located on the west side of the 1132 property. Soil/fill material encountered in all borings measured between 2.5' and 4.5' in thickness. A native soil unit consisting of clay or silty clay with interbedded sand was identified below the fill unit.

Groundwater was encountered in only four of the 32 borings located within the BCP Site. Saturated conditions were identified in the borings designated PH-2, PH-3, PH-4 and PH-5 located in an area that had been the focus of a tank removal and remedial action. When present, the groundwater was encountered at a depth of less than 1.0' bgs as a perched or confined "bathtub" like condition. Only three of the 32 borings encountered PID readings above background concentrations, the highest being 20-25 PPM detected at boring PH-26 located in the area of the former railroad loading dock on the eastern side of the manufacturing building. Petroleum odors were also noted at two of the four borings advanced in the area of the former gas station on the 1146 property.

Based on soil screening criteria, soil samples were collected at selected borings and submitted for off-Site chemical analyses that included both STARS and TCL volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), and in some cases polychlorinated biphenyl's (PCBs). Comparison of the analytical results with NYSDEC Soil Cleanup Objectives (SCOs) for PCBs identified elevated concentrations above the current restricted residential use SCO in soil samples collected north of the manufacturing building (PH-4, PH-7, PH-8, PH-13, PH-18 and PH-19) and in probe hole PH-20 advanced in the loading dock area. When compared with SCO criteria the volatile organics detected in the soil sample collected at PH-20 were below the restricted commercial use SCO criteria. The groundwater sample collected at sample location PH-2 located in the westernmost UST area did not detect parameters of concern above NYSDEC Class "GA" groundwater quality standards.

Figure 1-2 illustrates the locations of the 32 soil borings that were drilled and sampled within the BCP Site as part of the Evergreen investigation. A copy of the 2001 Phase II Investigation report is provided in **Appendix A**.

March 2008 – Malcolm Pirnie performed a Phase II investigation of the properties located at 1132 and 1146 Seneca Street in support of a BCP application. Surface and subsurface soil/fill samples were collected from direct-push soil borings and analyzed for TCL VOCs, SVOCs, TAL metals and PCBs. Samples were analyzed by a NELAP certified laboratory and reported in a full Analytical Services Protocol (ASP) Category B data package.

Implementation of this supplemental sampling program facilitated better characterization of the physical and chemical nature of the BCP site surface and subsurface soil/fill material. As shown on **Figure 1-3**, a total of 9 borings were advanced and discrete soil samples collected based on PID screening results coupled with visual and olfactory observations. Analytical results of the soil/fill testing identified elevated levels of polychlorinated biphenyl's (PCBs) and two metals above NYS SCO restricted use criteria. Specifically, elevated concentrations of PCBs were detected at the boreholes B-5 and B-11 located on the 1132 property. Concentrations of arsenic and barium in excess of the SCO criteria were detected in the soil/fill samples collected at the B-1 and B-3 sampling locations. Measurable concentrations of VOC (BTEX compounds) were generally detected at the borehole locations B-1, B-2 and B-3 located on the 1146 property.

4. Remedial Process

Note: See **Appendix E** for a flowchart of the Brownfield site remedial process.

Application

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program as a Volunteer. This means that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposure of people, fish and wildlife to contaminants identified on the site and to contamination that have migrated from the site.

The Applicant in its Application proposes that the site will be used for restricted commercial purposes.

To achieve this goal, the Applicant will conduct remedial activities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting a remedial program at the site.

Investigation

The remedial investigation (RI) of the site will be performed with NYSDEC oversight. The Applicant has developed a remedial investigation workplan, which is subject to public comment as noted in **Appendix D**. The goals of the investigation are as follows:

- 1) Define the nature and extent of contamination in soil, groundwater, and soil gas;
- 2) Identify the source(s) of the contamination;
- 3) Assess the impact of the contamination on public health and/or the environment; and
- 4) Provide information to support the development of a Remedial Work Plan to address the contamination, or to support a conclusion that the contamination does not need to be addressed.

The Applicant will prepare an RI Report after it completes the RI. This report will summarize the results of the RI and will include the Applicant's recommendation of whether remediation is needed to address site-related contamination. The RI Report is subject to review and approval by NYSDEC. Before the RI Report is approved, a fact sheet that describes the RI Report will be sent to the site's contact list.

NYSDEC will determine if the site poses a significant threat to public health and/or the environment. If NYSDEC determines that the site is a "significant threat," a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying community group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the eligible site.

For more information about the TAG Program and the availability of TAGs, go online at: www.dec.ny.gov/regulations/2590.html.

Remedy Selection

After NYSDEC approves the RI Report, the Applicant will be able to develop a Remedial Work Plan if remediation is required. The Remedial Work Plan describes how the Applicant would address the contamination related to the site.

The public will have the opportunity to review and comment on the draft Remedial Work Plan. The site contact list will be sent a fact sheet that describes the draft Remedial Work Plan and announces a 45-day public comment period. NYSDEC will factor this input into its decision to approve, reject or modify the draft Remedial Work Plan.

A public meeting may be held by NYSDEC about the proposed Remedial Work Plan if requested by the affected community and if significant substantive issues are raised about the draft Remedial Work Plan. Please note that, in order to request a public meeting, the health, economic well-being or enjoyment of the environment of those requesting the public meeting must be threatened or potentially threatened by the site. In addition, the request for the public meeting should be made within the first 30 days of the 45-day public comment period for the draft Remedial Work Plan. A public meeting also may be held at the discretion of the NYSDEC project manager in consultation with other NYSDEC staff as appropriate.

Construction

Approval of the Remedial Work Plan by NYSDEC will allow the Applicant to design and construct the alternative selected to remediate the site. The site contact list will receive notification before the start of site remediation. When the Applicant completes remedial activities, it will prepare a final engineering report that certifies that remediation requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the remediation is protective of public health and the environment for the intended use of the site. The site contact list will receive a fact sheet that announces the completion of remedial activities and the review of the final engineering report.

Certificate of Completion and Site Management

Once NYSDEC approves the final engineering report, it will issue the Applicant a Certificate of Completion. This Certificate states that remediation goals have been achieved, and relieves the Applicant from future remedial liability, subject to statutory conditions. The Certificate also includes a description of any institutional and engineering controls or monitoring required by the approved remedial work plan. If the Applicant uses institutional controls or engineering controls to achieve remedial objectives, the site contact list will receive a fact sheet that discusses such controls.

An institutional control is a non-physical restriction on use of the Brownfield site, such as a deed restriction that would prevent or restrict certain uses of the remediated property. An institutional control may be used when the remedial action leaves some contamination that makes the site suitable for some, but not all uses.

An engineering control is a physical barrier or method to manage contamination, such as a cap or vapor barrier.

Site management will be conducted by the Applicant as required. NYSDEC will provide appropriate oversight. Site management involves the institutional and engineering controls required for the Brownfield site. Examples include: operation of a water treatment plant, maintenance of a cap or cover, and monitoring of groundwater quality.

5. Citizen Participation Activities

CP activities that have already occurred and are planned during the investigation and remediation of the site under the BCP are identified in **Appendix D: Identification of Citizen Participation Activities**. These activities also are identified in the **flowchart of the BCP process in Appendix E**. NYSDEC will ensure that these CP activities are conducted, with appropriate assistance from the Applicant.

All CP activities are conducted to provide the public with significant information about site findings and planned remedial activities, and some activities announce comment periods and request public input about important draft documents such as the Remedial Work Plan.

All written materials developed for the public will be reviewed and approved by NYSDEC for clarity and accuracy before they are distributed. Notices and fact sheets can be combined at the discretion, and with the approval of, NYSDEC.

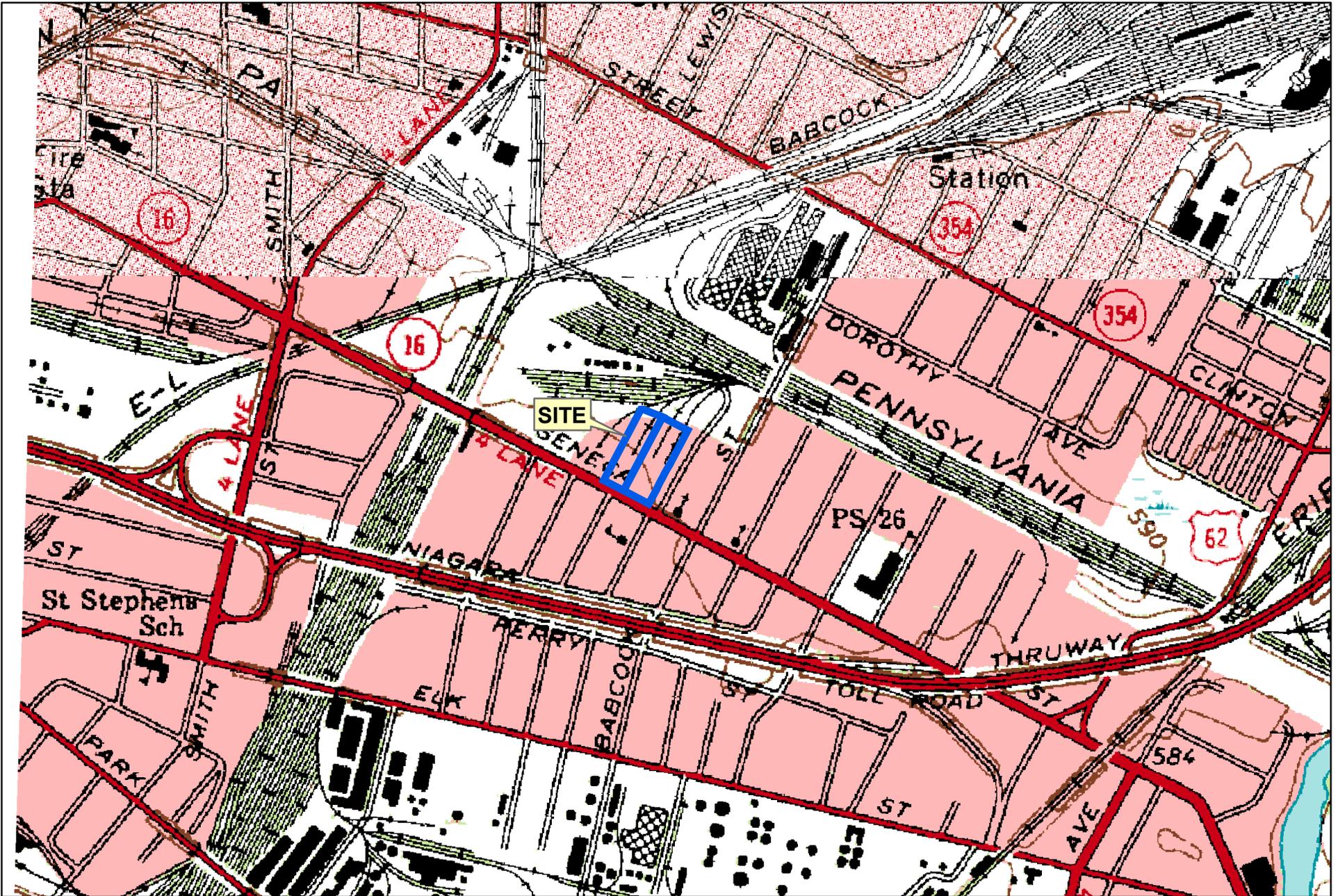
6. Major Issues of Public Concern

This section of the CP Plan identifies major issues of public concern, if any, that relate to the site. Additional major issues of public concern may be identified during the site's remedial process.

Redevelopment of the site may be made financially possible because of the beneficial land conveyance principals under New York State Urban Renewal Law, tax benefits made available to the applicant under the New York State Empire Zone program and the New York State Brownfield Cleanup Program, and by the environmental liability protection afforded to the applicant under the New York State Brownfield Cleanup Program.

The Site will encompass an area of approximately 3.7 acres for planned redevelopment that will include the construction of manufacturing and office space designed to complement renovation of the existing building at 1132 Seneca and modernization of the existing Flexo complex on Wasson Street. Long term expansion plans of the Flexo Site will also include facility expansion within the 1070 Seneca Street property. Redevelopment of the BCP Site will entail construction of more than 60,000 ft² of office, manufacturing and parking space at 1146 Seneca and a 40,000 ft² renovation at 1132 Seneca. Remediation of the Site will benefit most stakeholders that include residents of the City of Buffalo and New York State. Redevelopment of the Site will return vacant, unused industrial property to the City tax base while providing for an economic benefit to the local and regional community.

Appendix A – Site Location Map



SITE LOCATION MAP
1132 SENECA STREET AND 1146 SENECA STREET, BUFFALO, NY 14240
PHASE 1 ESA

FIGURE 1
PROJECT# 6105001

Appendix B – Project Contacts and Document Repositories

Project Contacts

For information about the site’s remedial program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

William P. Murray, Project Manager
NYSDEC Region 9
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, NY 14203-2999
(716) 851-7220
Email address: wpmurray@gw.dec.state.ny.us

Mark Baetzhold
Citizen Participation Specialist
NYSDEC Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999
(716) 851-7220

New York State Department of Health (NYSDOH):

Cameron O’Connor
Public Health Specialist
NYSDOH
Western Regional Office
584 Delaware Avenue
Buffalo, NY
(716) 847-4385

Document Repositories

The document repositories identified below have been established to provide the public with convenient access to important project documents:

Buffalo & Erie County Public Library
Dudley Branch
2010 South Park Avenue
Buffalo, New York 14220
Phone: (716) 823-1854
Hours: Tue and Thurs 12:00 – 8:00 PM
Mon, Fri, Sat 10:00 AM- 6:00 PM
Wed and Sun: Closed

NYSDEC Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999
Attn: Bill Murray , Project Manager
Phone: (716) 851-7220
Hours: M-F, 8:30 a.m.- 4:45 p.m.
(call for appointment)

Appendix C – Brownfield Site Contact List

Elected Officials/Government Representatives

**Martin L. Doster
NYSDEC Region 9
270 Michigan Avenue
Buffalo, NY 14203**

**Mark Baetzhold
N.Y.S. D.E.C., Region 9
270 Michigan Avenue
Buffalo, NY 14203**

**Assemblyman Mark Schroeder
145th Assembly District
2019 Seneca St.
Buffalo, NY 14210**

**Congressman Brian Higgins
27th District
726 Exchange St. St 601
Buffalo, NY 14210**

**Senator William Stachowski
58th District, N.Y.S. Senate
2030 Clinton Street
Buffalo, NY 14206**

**Senator Kirsten Gillibrand
United States Senate
726 Exchange St., Ste. 511
Buffalo, NY 14210**

**Senator Charles Schumer
United States Senate
130 S. Elmwood Avenue, #660
Buffalo, NY 14202**

**Honorable Chris Collins
Erie County Executive
95 Franklin Street
Buffalo, NY 14202**

**Mr. Tim Kennedy
Erie County Legislature - Dist 2
1928 South Park Avenue
Buffalo, NY 14220**

**Mr. Daniel Kozub
Erie County Legislature - Dist 1
609 Ridge Road
Lackawanna, NY 14218**

**Ms. Lynn Marinelli
Erie County Legislature - Chair
1701 Hertel Avenue
Buffalo, NY 14216**

**Mr. Robert Graber
Erie County Legislature Clerk
92 Franklin Street
Buffalo, NY 14202**

**Commissioner Holly Sinnott
Erie Co. Environment & Plan.
95 Franklin Street
Buffalo, NY 14202**

**Commissioner Anthony Billittier
Erie Co. Health Dept., Rm 931
95 Franklin Street
Buffalo, NY 14202**

**Erie County Water Authority
350 Ellicott Square Building
295 Main Street
Buffalo, NY 14203**

**Mr. Gregory Skibitsky,
Commissioner
Erie Co. Emergency Services
45 Elm Street
Buffalo, NY 14203**

**Mr. Thomas Hearsey
Erie County EMC
95 Franklin Street
Buffalo, NY 14202**

**Mr. Peter Cammarata
Erie County IDA
275 Oak St.
Buffalo, NY 14203**

**Mayor Byron Brown
201 City Hall
Buffalo, NY 14202**

**Mr. David Franczyk
1315 City Hall
Buffalo, NY 14202**

**Mr. Gerald Chwalinski
City Clerk
City Hall
Buffalo, NY 14202**

**Mr. Andrew Eszak
Office of Strategic Planning
920 City Hall
Buffalo, NY 14202**

**Paul Gareis, P.E.
City Engineer
City Hall, Rm 502
Buffalo, NY 14202**

**Buffalo Water Authority
City Hall
Buffalo, NY 14202**

Environmental/Citizen Groups

**Dr. Joseph Gardella
BEMC
176 Admiral Road
Buffalo, NY 14216**

**Mr. James Metzger
League of Women Voters
70 Haverford Lane
Williamsville, NY 14221**

**Director
Citizens Campaign-Environment
227 McConkey Dr.
Tonawanda, NY 14223**

**Citizen's Environmental Coalition
33 Central Avenue
Albany, NY 12210**

**Ms. Julie Barrett O'Neill, Director
Buffalo Niagara Riverkeeper
1250 Niagara Street
Buffalo, NY 14213**

**Dr Charles Lamb
Sierra Club - Niagara Region
335 Walnut Ln
Youngstown, NY 14174**

**Seneca Babcock Community Center
1168 Seneca St.
Buffalo, NY 14210**

Media

**Michael Desmond
WNED, Environmental News Desk
PO 1263, Horizons Plaza
Buffalo, NY 14240**

**Environmental News Desk
WGRZ TV - CH. 2
259 Delaware Avenue
Buffalo, NY 14202**

**Environmental News Desk
WKBW News Channel 7
7 Broadcast Plaza
Buffalo, NY 14202**

**Environmental News Desk
Buffalo News
1 News Plaza
Buffalo, NY 14240**

**Editor
Bee Group Newspapers
P.O. Box 150
Buffalo, NY 14231**

**Editor
Metro Community News
25 Boxwood Lane
Buffalo, NY 14227**

**Buffalo Alternative Press
P.O. Box 729
Buffalo, NY 14205**

**WBEN Radio 930 & WMJQ
Environmental News Desk
500 Corporate Pkwy
Buffalo, NY 14226**

**News Director
WDCX 99.5
625 Delaware Ave.
Buffalo, NY 14202**

**Mark Scott, News Director
WBFO 88.7/WOLN 91.3
3435 Main St.
Buffalo, NY 14214**

Bob Hill
Infinity Broadcasting
14 Lafayette Sq. #1300
Buffalo, NY 14203

News Director
Citadel Communications
50 James E Casey Dr
Buffalo, NY 14203

Anne Marie Franczyk
Business First, Environment
465 Main Street
Buffalo, NY 14203-1793

News Director
WUFO 10870
89 Lasalle Ave.
Buffalo, NY 14240

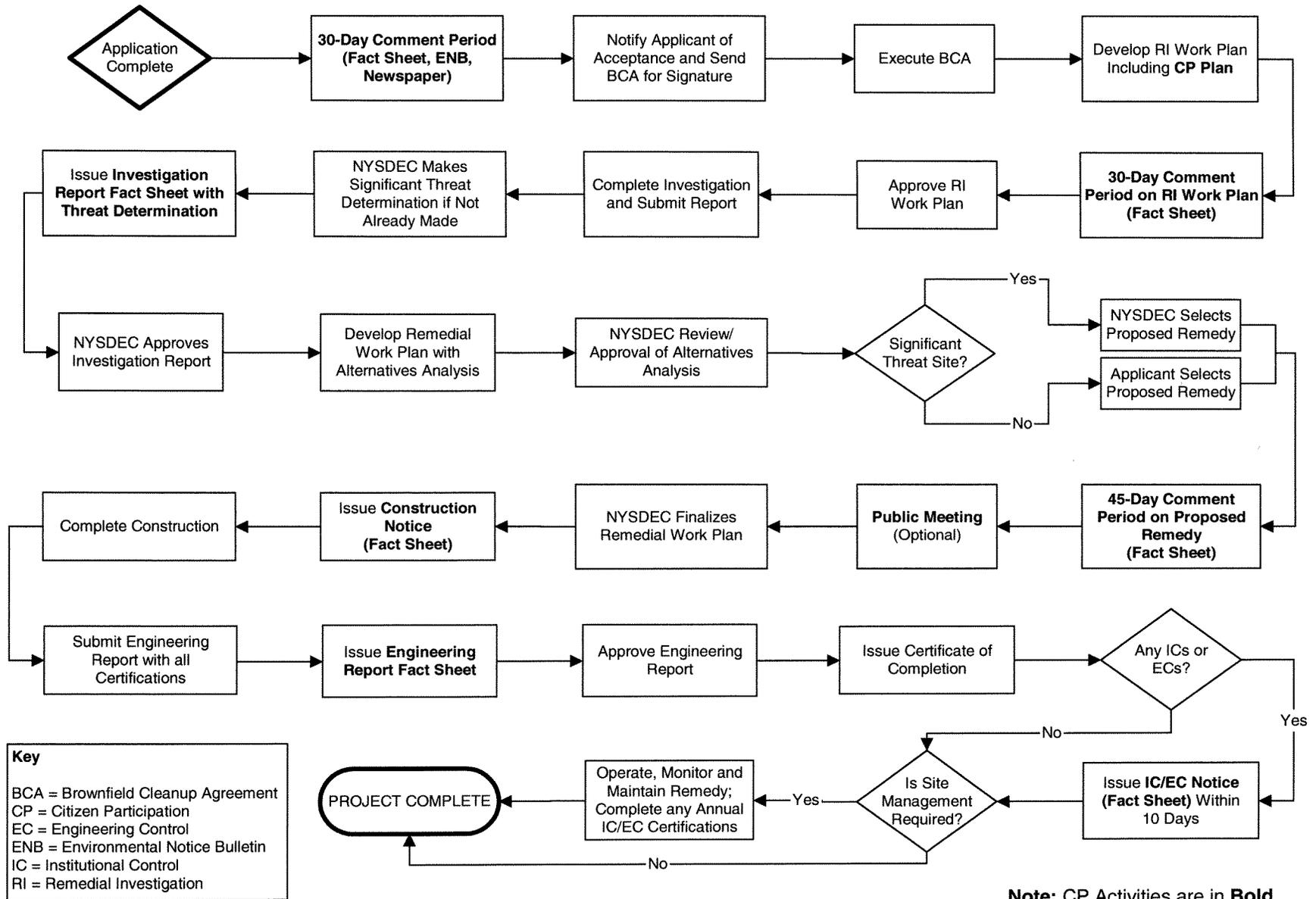
WIVB - CH. 4
Environmental News Desk
2077 Elmwood Avenue
Buffalo, NY 14207

The Buffalo Challenger
1337 Jefferson Ave.
Buffalo, NY 14208

Appendix D – Identification of Citizen Participation Activities

Required Citizen Participation (CP) Activities	CP Activities) Occur at this Point
Application Process:	
<ul style="list-style-type: none"> • Prepare brownfield site contact list (BSCL) 	At time of preparation of application to participate in BCP.
<ul style="list-style-type: none"> • Establish document repositories • Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day comment period 	When NYSDEC determines that BCP application is complete. The 30-day comment period begins on date of publication of notice in ENB. End date of comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice and notice to the BSCL should be provided to the public at the same time.
After Execution of Brownfield Site Cleanup Agreement:	
<ul style="list-style-type: none"> • Prepare citizen participation (CP) plan 	Draft CP Plan must be submitted within 20 days of entering Brownfield Site Cleanup Agreement. CP Plan must be approved by NYSDEC before distribution.
After Remedial Investigation (RI) Work Plan Received:	
<ul style="list-style-type: none"> • Mail fact sheet to BSCL about proposed RI activities and announcing 30-day public comment period on draft RI Work Plan 	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, comment periods will be combined and public notice will include fact sheet. 30-day comment period begins/ends as per dates identified in fact sheet.
After RI Completion:	
<ul style="list-style-type: none"> • Mail fact sheet to BSCL describing results of RI 	Before NYSDEC approves RI Report.
After Remedial Work Plan (RWP) Received:	
<ul style="list-style-type: none"> • Mail fact sheet to BSCL about proposed RWP and announcing 45-day comment period • Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager in consultation with other NYSDEC staff as appropriate) 	Before NYSDEC approves RWP. 45-day comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day comment period.
After Approval of RWP:	
<ul style="list-style-type: none"> • Mail fact sheet to BSCL summarizing upcoming remedial construction 	Before the start of remedial construction.
After Remedial Action Completed:	
<ul style="list-style-type: none"> • Mail fact sheet to BSCL announcing that remedial construction has been completed • Mail fact sheet to BSCL announcing issuance of Certificate of Completion (COC) 	At the time NYSDEC approves Final Engineering Report. These two fact sheets should be combined when possible if there is not a delay in issuance of the COC.

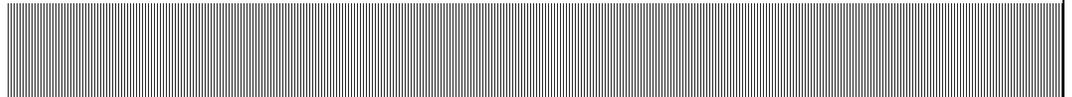
Appendix E – Brownfield Cleanup Program Process



Flexo Transparent, Inc.
Brownfield Cleanup Program / Remedial Investigation Work
Plan and Interim Remedial Measures Work Plan

Appendix D

Health and Safety Plan





SITE SPECIFIC HEALTH AND SAFETY PLAN

SECTION 1: GENERAL INFORMATION AND DISCLAIMER		PROJECT NUMBER:	6105-002
PROJECT NAME:	Flexo 1132 & 1146 Seneca St. BCP Site	CLIENT NAME:	Flexo Transparent, Inc.
PROJECT MANAGER:	Kent McManus	PROJECT LEADER:	Jim Richert
PREPARED BY:	John Hilton	DATE:	10/20/08

NOTE: This site specific Health and Safety Plan - Short Form (HASP-SF) has been prepared for use by **Malcolm Pirnie, Inc.** employees for work at this site / facility. **The plan is written for the specific site / facility conditions, purposes, tasks, dates and personnel specified, and must be amended and reviewed by those personnel named in Section 4 if these conditions change.** Malcolm Pirnie, Inc. is not responsible for its use by others.

Subcontractors shall be solely responsible for the health and safety of their employees and shall comply with all applicable laws and regulations. In accordance with 1910.120(b)(1)(iv) and (v), Malcolm Pirnie, Inc. will inform subcontractors of the site / facility emergency response procedures, and any potential fire, explosion, health, safety or other hazards by making this Site Specific Health and Safety Plan and site information obtained by others available during regular business hours. All contractors and subcontractors are responsible for: (1) developing their own Health and Safety Plan, including a written Hazard Communication Program and any other written hazard specific or safety programs required by federal, state and local laws and regulations, that details subcontractor tasks, potential or actual hazards identified as a result of a risk analysis of those tasks, and the engineering controls, work practices and personal protective equipment to be utilized to minimize or eliminate employee exposure to the hazard; (2) providing their own personal protective equipment; (3) providing documentation that their employees have been health and safety trained in accordance with applicable federal, state and local laws and regulations; (4) providing evidence of medical surveillance and medical approvals for their employees; and (5) designating their own site safety officer responsible for ensuring that their employees comply with their own Health and Safety plan and taking any other additional measures required by their site activities.

Providing a copy of this Malcolm Pirnie plan to subcontractors, does not establish, nor is it intended to establish a "joint employer" relationship between the Contractor and Malcolm Pirnie. This allowance does not establish, nor is it intended to establish, a direct or indirect employer/employee relationship with subcontractor's employees.

THIS SITE SPECIFIC HASP MUST BE REVIEWED AND APPROVED BY CORPORATE HEALTH AND SAFETY FOR ONE OR MORE OF THE FOLLOWING CONDITIONS: IF AN UPGRADE TO "LEVEL C" OR ABOVE IS ANTICIPATED; A PERMIT REQUIRED CONFINED SPACE ENTRY OR ENTRY INTO AN EXCAVATION IS ANTICIPATED; SAMPLING OF UNKNOWN DRUMS AND/OR IN UNKNOWN CONDITIONS IS ANTICIPATED, OR IF THERE MAY BE RADIATION LEVELS GREATER THAN 0.5 mR (500µR)/HOUR.

SECTION 2: EMERGENCY INFORMATION

(A) LOCAL RESOURCES	SERVICE NAME	TELEPHONE NUMBER
EMERGENCY MEDICAL SERVICES	Rural- Metro Ambulance	(716) 882 - 8400
HOSPITAL (Map attached)	Buffalo General Hospital	(716) 859 - 5600
FIRE DEPARTMENT	Buffalo Fire Co	911
POLICE / SECURITY	Buffalo Police Department	911
HAZMAT/ SPILL / OTHER RESPONSE	Buffalo Fire Co	911

(B) CORPORATE RESOURCES		
MALCOLM PIRNIE 24 / 7 EMERGENCY / INCIDENT TELEPHONE NUMBERS		(800) 478-6870 (24 HOURS)
CORPORATE HEALTH AND SAFETY **	Chuck Myers	(914) 641-2610 WHI
FIER PROJECTS	Chuck Myers	(914) 641-2610 WHI
MUNI/WEG/CMRT PROJECTS	LAURA LEE-CASEY,	(914) 641-2707 WHI
CORPORATE HEALTH PHYSICIST	LES SKOSKI	(201) 398-4377 NNJ
WORKERS COMP / OSHA LOG	Chuck Myers	(914) 641-2707 WHI
LEGAL DEPARTMENT **	JERRY CAVALUZZI	(914) 641-2950 WHI
** TO BE NOTIFIED IN CASE OF ACCIDENT		

SECTION 3: PROJECT INFORMATION	
(A) SITE / FACILITY INFORMATION:	
SITE NAME: <u>Flexo Seneca Street BCP Site</u> ADDRESS: <u>1132/1146 Seneca St., Buffalo, NY 14207</u> TOWNSHIP/ COUNTY: <u>/Erie</u> <input type="checkbox"/> FEDERAL <input type="checkbox"/> STATE	SITE CLIENT CONTACT: <u>Dan Steger</u> PHONE NUMBER: <u>716-825-7710</u> SITE SAFETY CONTACT: <u>Chuck Myers (WHI)</u> <u>914/641-2610</u> <input type="checkbox"/> MUNICIPAL / REGIONAL <input checked="" type="checkbox"/> PRIVATE

(B) SITE CLASSIFICATION: (check all that apply)

<input type="checkbox"/> HAZARDOUS (RCRA)	<input type="checkbox"/> UST / LUST	<input type="checkbox"/> REFINERY
<input type="checkbox"/> HAZARDOUS (CERCLA / STATE)	<input checked="" type="checkbox"/> BROWNFIELD	<input type="checkbox"/> WTP / WWTP
<input type="checkbox"/> CONSTRUCTION	<input type="checkbox"/> CHEMICAL PLANT	<input type="checkbox"/> OTHER: _____
<input type="checkbox"/> LANDFILL (NON-HAZARDOUS)	<input type="checkbox"/> MANUFACTURING	_____
<input type="checkbox"/> ACTIVE	<input checked="" type="checkbox"/> INACTIVE	

(C) TYPE OF FIELD ACTIVITY

<input checked="" type="checkbox"/> HAZARDOUS WASTE	<input type="checkbox"/> SOLID WASTE	<input type="checkbox"/> CONSTRUCTION
<input checked="" type="checkbox"/> HYDROGEOLOGY	<input type="checkbox"/> ENVIRONMENTAL	<input checked="" type="checkbox"/> AIR / ODOR
<input type="checkbox"/> WASTE WATER	<input type="checkbox"/> WATER	<input type="checkbox"/> OTHER: _____

(D) FIELD OBJECTIVES (Check all that apply)

<input type="checkbox"/> PRE-JOB VISIT	<input type="checkbox"/> AUDIT	<input checked="" type="checkbox"/> AIR	<input type="checkbox"/> SEDIMENT
<input checked="" type="checkbox"/> CONTRACTOR OVERSIGHT	<input type="checkbox"/> OTHER: _____	<input type="checkbox"/> SURFACE WATER	<input checked="" type="checkbox"/> SURFACE SOIL
<input type="checkbox"/> CONSTRUCTION MGMT	_____	<input checked="" type="checkbox"/> GROUND WATER	<input type="checkbox"/> LANDFILL
<input type="checkbox"/> INSPECTION	_____	<input type="checkbox"/> WASTE WATER	<input checked="" type="checkbox"/> OTHER
<input type="checkbox"/> INVESTIGATION SURVEY	_____	<input type="checkbox"/> WASTE STREAM	<u>Subsurface Soil</u>

DATE(S) OF FIELD ACTIVITIES: Winter of 2008

(E) FIELD TASKS

MALCOLM PIRNIE TASKS

M1. Geoprobe soil boring/test pit excavation

M2. Ground Water Sampling

M3. Sub-slab soil vapor

M4. Soil/fill Sampling

TASKS PERFORMED BY OTHERS

01. GeoProbe Drilling

02. Soil Excavation

03. _____

04. _____

SECTION 4: PROJECT SAFETY ORGANIZATION, HEALTH AND SAFETY TRAINING, AND MEDICAL MONITORING

(A) PROJECT HEALTH AND SAFETY ROLES, RESPONSIBILITIES AND COORDINATION

PROJECT OFFICER	The Project Officer (PO) is ultimately responsible for project performance. The PO seeks and gets appropriate approvals for risk management decisions (e.g. from Regional/Practice Director(s), Legal Council, Corporate Health and Safety), and selects and effective and qualified project team. The PO supports the Project Manager or Deputy Project Manager with appropriate resources.
PROJECT MANAGER DEPUTY PROJECT MANAGER	The Project Manager (PM) has the responsibility for executing the project in accordance with the scope of work and good engineering practice. The PM will supervise the allocation of resources and staff to implement specific aspects of this HASP and may delegate authority to expedite and facilitate any application of the program. The PM implements and executes an effective program of site-specific personnel protection and accident prevention. The Project Manager reports to the Project Officer. Deputy Project Managers (DPM) are assigned all duties and responsibilities of the Site Safety Officer in his/her absence.
CORPORATE HEALTH & SAFETY	Corporate Health and Safety is responsible for Malcolm Pirnie's overall Health and Safety Program and provides project guidance on air monitoring methodology, data interpretation and assistance in determining appropriate project engineering controls, work practices, and personal protective equipment. Corporate Health and Safety also reviews and approve HASPs in accordance with Section 1.
SITE SAFETY OFFICER ALTERNATE SITE SAFETY OFFICER (S)	The Site Safety Officer (SSO) is responsible for interpreting and implementing the site health and safety provisions set out in this HASP, and will guide the efforts of field team personnel in their day-to-day compliance with this HASP. The SSO has the ability and authority to make necessary changes or additions to this HASP and provide technical assistance to field team personnel on problems relating to worksite safety. The SSO has the authority to correct safety-related deficiencies in materials or practice and to call a Project STOP in the most serious cases. Alternate Site Safety Officer (ASSO) is assigned all duties and responsibilities of the Site Safety Officer in his/her absence.
PUBLIC INFORMATION OFFICER:	The Public Information Officer (PIO) is responsible for all public, press and other news media request for information, and is the only person authorized to provide such information
SITE RECORDKEEPER:	The Site Recordkeeper is responsible for the documentation of all related health and safety data documentation, including but not limited to metrological data, instrument calibration, accident and injury reports, and air monitoring data.
FIELD TEAM LEADER:	The Field Team Leader (FTL) is responsible for leading "on-site" activities of field team personnel, and to ensure field team personnel perform only those tasks that have been identified in this HASP.
FIELD TEAM PERSONNEL	Field personnel have the following health and safety responsibilities: <ul style="list-style-type: none"> • Implement the procedures set forth in the HASP; • Take all reasonable precautions to prevent injury to themselves and their fellow employees; and • Perform only those tasks that they believe they can do safely, and immediately report any accidents and/or unsafe conditions in accordance with Section 1.

(B) PROJECT TEAM - The following Malcolm Pirnie personnel are designated to carry out the stated project job functions on site. THE SITE SAFETY OFFICER, OR A DESIGNATED ALTERNATE WILL BE ON-SITE DURING ALL SITE ACTIVITIES. (NOTE: One person may carry out more than one job function.)

PROJECT MANAGER: Kent McManus

PROJECT OFFICER: Kent McManus

DEPUTY PROJECT MANAGER: Jim Richert

ALTERNATE SAFETY OFFICER(S): Adam Mazenauer

QUALITY ASSURANCE OFFICER: _____

QUALITY REVIEWER: _____

SITE RECORDKEEPER: Adam Mazenauer

FIELD TEAM LEADER: Jim Richert

FIELD TEAM PERSONNEL: Adam Mazenauer

PUBLIC INFORMATION OFFICER: _____

The following subcontractors and governmental agencies have been informed by Malcolm Pirnie of emergency response procedures, and any potential fire, explosion, health, safety or other hazards of the site / facility by making this Site Specific Health and Safety Plan and site information obtained by others available during regular business hours. Subcontractors and governmental agencies shall be solely responsible for the health and safety of their employees and shall comply with all applicable laws and regulations as described in Section 1 of this plan.

SUBCONTRACTOR(S): Geoprobe driller/ excavator

FEDERAL AND STATE AGENCY REPS: _____

OTHER AGENCY REPS: _____

(C) HEALTH AND SAFETY TRAINING, MEDICAL MONITORING, AND FIT TESTING PROGRAM

The following project staff is included in the Malcolm Pirnie Health and Safety Training and Medical Monitoring programs. The details of these programs can be found in the Health and Safety Policies and Written Programs. (NOTE: At least one CPR/First Aid Trained person must be on-site during HAZWOPER and confined space entry activities.)

NAME	HAZWOPER TRAINING				OTHER TRAINING			MEDICAL (DATE)	FIT TEST				
	INITIAL (DATE)	8HR (DATE)	MGR (DATE)	DOT (DATE)	CSE (DATE)	CPR / First Aid / (DATE)	BBP		MAKE / SIZE / TYPE	(DATE)			
Jim Richert	09/88	05/07				12/07	04/06	06/02	09/07	Nor	M-L	FF	05/08
Adam Mazenauer	05/06	06/07						05/07					

SECTION 5: HAZARD ANALYSIS

(A) **ACTUAL OR POTENTIAL PHYSICAL HAZARDS** – (Check all that apply to Malcolm Pirnie activities)

- | | | | |
|---|--|---|--|
| <input type="checkbox"/> ANIMALS / PLANTS | <input type="checkbox"/> ELECTRICAL | <input type="checkbox"/> IONIZING RADIATION | <input type="checkbox"/> STEEP / UNEVEN |
| <input type="checkbox"/> ASBESTOS / LEAD | <input checked="" type="checkbox"/> EXCAVATIONS
(See Section 13) | <input type="checkbox"/> LIGHT RADIATION
(i.e., Welding, High Intensity) | <input type="checkbox"/> TERRAIN |
| <input type="checkbox"/> CHEMICAL EXPOSURE
(See Section 5B/5C) | <input checked="" type="checkbox"/> EXTREME COLD
(See Section 10) | <input type="checkbox"/> LIMITED CONTACT | <input type="checkbox"/> TRAFFIC (STRUCK BY) |
| <input type="checkbox"/> CONFINED SPACE
(See Section 12) | <input type="checkbox"/> FALL, >6' VERTICAL | <input type="checkbox"/> MOVING PARTS (LO / TO) | <input checked="" type="checkbox"/> OTHER:
Limited lighting in building
"C"

_____ |
| <input type="checkbox"/> DEMOLITION | <input type="checkbox"/> FALLING OBJECTS | <input type="checkbox"/> NON-IONIZING RADIATION | |
| <input checked="" type="checkbox"/> DRILLING | <input type="checkbox"/> HEAT STRESS | <input type="checkbox"/> OVERHEAD OBJECTS | |
| <input type="checkbox"/> DRUM HANDLING | <input checked="" type="checkbox"/> HEAVY EQUIPMT | <input type="checkbox"/> POWERED PLATFORMS | |
| <input type="checkbox"/> DUST, HARMFUL | <input checked="" type="checkbox"/> HEAVY LIFTING | <input type="checkbox"/> POOR VISIBILITY | |
| <input type="checkbox"/> DUST, NUISANCE | <input type="checkbox"/> HOT WORK | <input type="checkbox"/> ROLLING OBJECTS | |
| | <input type="checkbox"/> HUNTING SEASON | <input type="checkbox"/> SCAFFOLDING | |
| | <input type="checkbox"/> IMMERSION | <input type="checkbox"/> SHARP OBJECTS | |

(B) **PRESENCE OF HAZARDOUS MATERIALS STORED OR USED ON SITE** YES YES NO
 (CHECK ALL THAT APPLY) By Client / Owner By Malcolm Pirnie (See Section 11)

- TYPE**
- | | | | |
|--|--|---|---|
| <input type="checkbox"/> EXPLOSIVES | <input type="checkbox"/> FLAMMABLE / REACTIVE SOLIDS | <input type="checkbox"/> RADIOACTIVE | <input type="checkbox"/> HAZARDOUS WASTE (Stored) |
| <input type="checkbox"/> COMPRESSED GASES | <input type="checkbox"/> OXIDIZERS | <input type="checkbox"/> CORROSIVE | |
| <input type="checkbox"/> FLAMMABLE / COMBUSTIBLE LIQUIDS | <input type="checkbox"/> TOXIC / INFECTIOUS | <input type="checkbox"/> MISCELLANEOUS Containers of unknown materials. | |

(C) **CHEMICAL HAZARDS OF CONTAMINANTS INFORMATION**

(1) **IDENTIFIED CONTAMINANTS** - Known or suspected hazardous/toxic materials (attach historical information, physical description, map of contamination and tabulated data, if available)

SUBSTANCES INVOLVED	CHARACTERISTICS	MEDIA	ESTIMATED CONCENTRATIONS	LOWEST PEL, or TLV
PCB contaminants	TO	Soil	Up to 3500 ppm	<input type="checkbox"/> PPM <input type="checkbox"/> mg/m ³
_____	_____	_____	_____	<input type="checkbox"/> PPM <input type="checkbox"/> mg/m ³
_____	_____	_____	_____	<input type="checkbox"/> PPM <input type="checkbox"/> mg/m ³

Media types: GW (ground water), SW (surface water), WW (wastewater), AIR (air), SL (soil), SD (sediment), WL (waste, liquid), WS (waste, solid), WD (waste, sludge), WG (waste, gas), OT (other).

Characteristics: CA (corrosive, acid), CC (corrosive, caustic), IG (ignitable), RA (radioactive), VO (volatile), TO (toxic), RE (reactive), BIO (infectious), UN (unknown), OT (other, describe)

(2) **DESCRIBE POTENTIAL FOR CONTACT WITH EACH MEDIA TYPE FOR EACH OF THE MPI TASKS LISTED IN SEC 3 (E):**

MPI TASK	ROUTE OF EXPOSURE (INHAL/INGEST/CONTACT/ABSORB)	POTENTIAL FOR CONTACT (HIGH / MEDIUM / LOW)	METHOD OF CONTROL
M1	Ingestion/Contact	Low	PPE-Gloves,PID, Air Monitoring
M2	Ingestion/Contact	Low	PPE-Gloves,PID, Air Monitoring
M3	Inhalation	Low	PID, Air monitoring
M4	Ingestion/Contact	Low	PPE-Gloves,PID, Air Monitoring

The Site Safety Officer will brief the MPI field team on symptoms and signs of overexposure to chemical hazards

SECTION 6: SITE CONTROL MEASURES

(A) WORK ZONES - EXCAVATIONS, DRILLING OPERATIONS, AND HEAVY EQUIPMENT

Jim Richert has been designated to coordinate access control and security for Malcolm Pirnie operations on site. It is a Malcolm Pirnie policy that Malcolm Pirnie personnel will not enter trench or excavate areas without approval of Corporate Health and Safety. A safe perimeter has been established at the boundary of any excavation and/or a safe distance from excavators, drill rigs and other heavy equipment.

These boundaries are identified by: Perimeter fencing

No unauthorized person should be within this area.

(B) WORK ZONES - CONTAMINATION

The prevailing wind conditions are Unknown. A wind direction indicator is used to determine daily wind direction. The Command Post is located upwind from the Exclusion Zone or at a sufficient distance to prevent exposure should a release occur.

Control boundaries have been established and Exclusion Zone(s) (the contaminated area) have been identified. (Attach site map)

These boundaries are identified by: Perimeter fencing

No unauthorized person should be within this area.

SECTION 7: SAFETY PROCEDURES / EQUIPMENT REQUIRED

Identify all procedures and equipment needed to eliminate or minimize exposure to hazards identified in Section 5.

- | | | |
|---|--|---|
| <input type="checkbox"/> AIR MONITORING EQUIPMENT
(See Section 9) | <input checked="" type="checkbox"/> FIRST AID KIT / BBP KIT | <input type="checkbox"/> MSDSs - FACILITY / OTHERS |
| <input checked="" type="checkbox"/> BARRIER TAPE | <input type="checkbox"/> FLOTATION DEVICE (USCG) | <input checked="" type="checkbox"/> PPE - PHYSICAL HAZARDS
(See Section 15) |
| <input checked="" type="checkbox"/> COMMUNICATIONS - ONSITE | <input checked="" type="checkbox"/> GFCI EXTENSION CORDS | <input checked="" type="checkbox"/> PPE - CHEMICAL HAZARDS
(See Section 15) |
| <input checked="" type="checkbox"/> COMMUNICATIONS - OFFSITE
(i.e., cell/digital phones if no other means) | <input type="checkbox"/> HARNESS(S) / LIFELINE(S) | <input type="checkbox"/> RESPIRATORY PROTECTION PROGRAM & EQUIPMENT (APR)
(See Section 15) |
| <input type="checkbox"/> CONFINED SPACE PROGRAM & EQUIPMENT (See Section 12) | <input type="checkbox"/> INSECT / TICK REPELLANT | <input type="checkbox"/> RESPIRATORY PROTECTION PROGRAM & EQUIPMENT (SAR)
(See Section 15) |
| <input checked="" type="checkbox"/> EYE WASH | <input type="checkbox"/> HUNTING SEASON | <input checked="" type="checkbox"/> TRAFFIC CONES |
| <input type="checkbox"/> EMERGENCY SHOWERS | <input type="checkbox"/> LADDER(S) | <input type="checkbox"/> VENTILATION EQUIPMENT |
| <input type="checkbox"/> EMERGENCY AIR HORN | <input checked="" type="checkbox"/> LIGHTING - HAND HELD | <input type="checkbox"/> OTHER:
_____ |
| <input type="checkbox"/> FALL PROTECTION PROGRAM & EQUIPMENT | <input checked="" type="checkbox"/> LIGHTING - FIXED / EMERGENCY | _____ |
| <input type="checkbox"/> FIRE EXTINGUISHER(S) - ABC | <input type="checkbox"/> LOCKOUT/TAGOUT PROGRAM & EQUIPMENT | |
| | <input type="checkbox"/> MSDSs - ATTACHED
(See Section 11) | |

SECTION 8: COMMUNICATIONS AND SAFE WORK PRACTICES

(A) COMMUNICATIONS - ONSITE

Whenever possible, communications between site personnel should be face-to-face. When verbal communications is not possible, radio communications shall be established.

In case of radio communications failure, or when respiratory protection is in use, the following hand signals will be used:

OK; I AM ALL RIGHT; I UNDERSTAND	THUMBS UP
NO; NEGATIVE	THUMBS DOWN
NEED ASSISTANCE	BOTH HANDS ON TOP OF HEAD
DANGER - NEED TO LEAVE AREA, NO QUESTIONS	GRIP PARTNERS WRIST WITH BOTH HANDS
HAVING DIFFICULTY BREATHING	HANDS TO THROAT

(B) COMMUNICATIONS - OFF SITE

If applicable, telephone communication to the Command Post should be established as soon as practical.

Telephone numbers that can be used to reach the command post are: _____ and _____

(C) SAFE WORK PRACTICES

1. A "BUDDY SYSTEM" IN WHICH ANOTHER WORKER IS CLOSE ENOUGH TO RENDER IMMEDIATE AID WILL BE IN EFFECT. CLIENTS AND/OR CONTRACTORS MAY SERVE AS A "DESIGNATED BUDDY."
2. WHERE THE EYES OR BODY MAY BE EXPOSED TO CORROSIVE MATERIALS, SUITABLE FACILITIES FOR QUICK DRENCHING OR FLUSHING SHALL BE AVAILABLE FOR IMMEDIATE USE (SEE SECTION 7).
3. DO NOT KNEEL ON THE GROUND WHEN CHEMICAL PROTECTIVE CLOTHING IS BEING USED.
4. IF DRILLING EQUIPMENT IS INVOLVED, HAVE A CURRENT UTILITY SURVEY, AND KNOW WHERE THE 'KILL SWITCH' IS.
5. CONTACT WITH SAMPLES, EXCAVATED MATERIALS, OR OTHER CONTAMINATED MATERIALS MUST BE MINIMIZED.
6. ALL ELECTRICAL EQUIPMENT USED IN OUTSIDE LOCATIONS, WET AREAS OR NEAR WATER MUST BE PLUGGED INTO GROUND FAULT CIRCUIT INTERRUPTER (GFCI) PROTECTED OUTLETS (SEE SECTION 7).
7. IN THE EVENT OF TREACHEROUS WEATHER-RELATED WORKING CONDITIONS (I.E., THUNDERSTORM, LIMITED VISIBILITY, EXTREME COLD OR HEAT) FIELD TASKS WILL BE SUSPENDED UNTIL CONDITIONS IMPROVE OR APPROPRIATE PROTECTION FROM THE ELEMENTS IS PROVIDED.
8. SMOKING, EATING, CHEWING GUM OR TOBACCO, OR DRINKING ARE FORBIDDEN EXCEPT IN CLEAN OR DESIGNATED AREAS.
9. USE OF CONTACT LENSES NEAR CHEMICALS OR DURING USE OF RESPIRATORY PROTECTION IS PROHIBITED AT ALL TIMES.
10. GOOD HOUSEKEEPING PRACTICES ARE TO BE MAINTAINED.
11. SITE / FACILITY SPECIFIC SAFE WORK PRACTICES:
No unscrubbed vehicle exhausting inside buildings.

SECTION 9: ENVIRONMENTAL MONITORING

THIS SECTION NOT APPLICABLE TO SITE ACTIVITIES

(A) The following environmental monitoring instruments shall be used on site at the specified intervals and recorded in the site logbook. (NOTE: If monitoring period is "OTHER", monitoring schedule will be attached to this plan.)

EQUIPMENT	MONITORING PERIOD				ACTION LEVEL
<input type="checkbox"/> Combustible Gas Indicator	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input checked="" type="checkbox"/> Other	_____
<input type="checkbox"/> O ₂ Meter	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
<input type="checkbox"/> Toxics: <input type="checkbox"/> CO <input type="checkbox"/> H ₂ S	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
<input type="checkbox"/> Other: _____	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
<input checked="" type="checkbox"/> PID (Lamp 10.6 eV)	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	>5ppm above background
<input type="checkbox"/> FID					
<input type="checkbox"/> Colorimetric tubes: _____	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
<input type="checkbox"/> Radiation: <input type="checkbox"/> α <input type="checkbox"/> β <input type="checkbox"/> gamma	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
<input checked="" type="checkbox"/> Respirable Dust Meter	<input checked="" type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
<input type="checkbox"/> Noise Meter	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
<input type="checkbox"/> Other: _____	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____
	<input type="checkbox"/> Continuous	<input type="checkbox"/> Hourly	<input type="checkbox"/> x Day	<input type="checkbox"/> Other	_____

(B) Monitoring equipment is to calibrated according to manufacturers' instructions. Record calibration data and air concentrations in the Health and Safety on-site log book.

(C) Recommended Action Levels for Upgrade or Downgrade of Respiratory Protection, or Site Shutdown and Evacuation. These are average values. Consideration should be given to the potential for release of highly toxic compounds from the waste or from reaction by-products. Levels are for persistent (> 10 min) breathing zone measurements in non-confined spaces. **For unexpected conditions, stop all work and contact Corporate Health and Safety.**

Oxygen Levels
 Less than 19.5% Level B necessary for work to start / continue. Consider toxicity potential.
 19.5% to 23.5% Work may start / continue. Investigate changes. Continuous monitoring.
 Greater than 23.5% PROHIBITED WORK CONDITION

Flammability / Explosive Hazards
 Less than 10% of LEL Work may start / continue. Consider toxicity potential.
 10% to 25% of LEL Work may start / continue. Continuous monitoring.
 Greater than 25% of LEL PROHIBITED WORK CONDITION.

Uncharacterized Airborne Organic Vapors or Gases Background*
 Up to 5 meter units (m.u. or "ppm") above background Work may start / continue. Continue to monitor conditions.
 Level C necessary for work to start / continue. Continuous monitoring. Use Colorimetric tubes to characterize vapors.

Up to 50 m.u. above background Level B necessary for work to start / continue. Continuous monitoring.
 Greater than 50 m.u. PROHIBITED WORK CONDITION.

Characterized Airborne Organic Vapors or Gases**
 Up to 50% of TLV, or PEL or REL Work may start / continue. Continue to monitor conditions.
 Up to 25 times the TLV, or PEL or REL Level C necessary for work to start / continue. Continuous monitoring.
 Up to 500 times the TLV, or PEL or REL Level B necessary for work to start / continue. Continuous monitoring.
 Greater than 500 times the TLV, or PEL or REL PROHIBITED WORK CONDITION.
**** Use mixture calculations (% allowed = $\sum C_N/EL_N$) if more than one contaminant is present.**

Radiation
 Less than 0.5 mR/Hour (500 μR) Work may start / continue. Continue to monitor conditions.
 Up to 1 mR/Hour above background Work may start / continue with Radiation Safety Officer present on site.
 Greater than 1 mR/Hour above background PROHIBITED WORK CONDITION.

SECTION 10: PERSONAL MONITORING

THIS SECTION NOT APPLICABLE TO SITE ACTIVITIES

(A) PERSONAL EXPOSURE SAMPLING (Consider if high levels of noise or high concentrations of lead, mercury or arsenic are present)

The following personal monitoring will be in effect on site: _____

A copy of personal monitoring results is to be sent to Corporate Health and Safety for inclusion in the Employee's Confidential Exposure Record File.

(B) HEAT / COLD STRESS MONITORING

The expected air temperature will be 15 to 45 °F. If it is determined that heat stress or cold stress monitoring is required (mandatory for heavy exertion in PPE at temperatures over 70°F, or at temperatures under 40°F or wind chill equivalent), the following procedures shall be followed (describe procedures in effect, for heat stress i.e., monitoring body temperature, body weight, pulse rate; for cold stress i.e., appropriate clothing, shelter breaks):

Take breaks as necessary in warm indoor area. Drink warm (non-alcoholic) liquids.

SECTION 11: HAZARD COMMUNICATION PROGRAM

THIS SECTION NOT APPLICABLE TO SITE ACTIVITIES

If chemicals are introduced to the site by Malcolm Pirnie (e.g., decontamination liquids, preservatives, etc.), a copy of the Malcolm Pirnie Hazard Communication Program and Material Safety Data Sheets (MSDSs) of chemicals introduced by Malcolm Pirnie to the site is attached to this plan. The Site Safety Officer will review this information with all field personnel prior to the start of the project, and will inform other employers (e.g., Owner, Contractor and Subcontractors) the availability and location of this information. The Comprehensive List of Chemicals introduced by Malcolm Pirnie to this site is:

Alconox _____
PID Cal-Gas _____
Preservatives _____

All chemicals being introduced to the site, hazardous/potentially hazardous samples prepared at the site, and/or any hazardous materials previously sent to the site, **that will be stored at the site or will be transported from the site by common carrier**, will be packaged, labeled and identified as hazardous materials in accordance with U.S. Department of Transportation (DOT) and/or International Air Transport Association (IATA) regulations by a trained HazMat employee.

(NOTE: At multi-employer sites, the Site Safety Officer will obtain information, if applicable, on hazardous chemicals other employers may produce or introduce to the job site to which Malcolm Pirnie employees may be exposed, including the location of their written hazard communication program(s), labeling program(s), and Material Safety Data Sheet(s).

SECTION 12: CONFINED SPACE ENTRY

THIS SECTION NOT APPLICABLE TO SITE ACTIVITIES

If a permit-required confined space entry will be made on site, a copy of the Malcolm Pirnie Confined Space Entry Program, and a completed Malcolm Pirnie Confined Space Pre-Entry Inspection Check List will be attached to this plan. A Confined Space Entry Permit must be completed and posted outside the confined space prior to entry, and the entry will follow the Malcolm Pirnie Confined Space Entry written program. Permits are to be saved and logged with project documentation.

SECTION 13: EXCAVATION SAFETY

THIS SECTION NOT APPLICABLE TO SITE ACTIVITIES

Excavations being created in order to accomplish Malcolm Pirnie tasks or in progress during Malcolm Pirnie inspection of other activities or tasks, shall be shored or slopped or otherwise protected to prevent accidental collapse prior to entry, in accordance with Subpart F of 29 CFR 1926. It is Malcolm Pirnie policy that Malcolm Pirnie personnel will not enter trench or excavated areas without approval of Corporate Health and Safety. If an entry into an excavation by Malcolm Pirnie personnel is necessary, a Excavation Plan identifying the Competent Person and the protective measure to be used (i.e., sloping, shoring, trench box) will be attached to this plan.

SECTION 14: DECONTAMINATION PROCEDURES

THIS SECTION NOT APPLICABLE TO SITE ACTIVITIES

Personnel and equipment leaving the Site shall be thoroughly decontaminated. The Site Safety Officer is responsible for monitoring adherence with this decontamination plan.

A Equipment decontamination protocol shall be used with the following decontamination stations:

- (1) Tap water rinse
- (2) Alconox & tap water wash
- (3) Distilled water rinse
- (4) Or high pressure hot water rinse (steam cleaner)
- (5) _____
- (6) _____
- (7) _____
- (8) _____
- (Other) _____

The following decontamination equipment is required:

- Decon Pad (Plastic Sheet)
 - Dry Brushes
 - Buckets
 - Other _____
 - Trash Cans/Bags
 - Wet Brushes
 - Hose / Spray
- Alconox Will be used as the decontamination solution

SECTION 15: PERSONAL PROTECTIVE EQUIPMENT

TASK *	RESPIRATORS & CARTRIDGE ¹	USE ** (See Section 16)	CLOTHING ***	GLOVES	BOOTS	OTHER
M1/M2/M3/M4		UP	N/S	Le, N, L	SL	HH,G,HP
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

* Same as Section 3E

**UP = Upgrade
CONT = Continuous

*** NOTE: PPE use will be in accordance with Malcolm Pirnie's Health and Safety Policy and Written Programs.

CODES:

RESPIRATORS ¹	CARTRIDGES ¹	CLOTHING	GLOVES ²	BOOTS	OTHER
HF = Half Face APR FF = Full Face APR ESCBA = Escape Bottle SAR = Airline SCBA = SCBA	P = Particulate OV = Organic Vapors AG = Acid Gas Mult = Multi-Gas/Vapor Other	N/S = No Special C = Coveralls T = Tyvek Sx = Saranex PT = PE Tyvek	Co = Cotton Le = Leather ³ L = Latex N = Nitrile B = Butyl Neo = Neoprene V = Viton PVC = Polyvinyl Chloride PVA = Polyvinyl Alcohol Other:	SL = Leather Safety H = Hip (Fireman) O = Latex overboots	HH = Hard Hat ³ G = Safety Glasses ³ GP = Glare Protection GI = Goggles - Impact GS = Goggles - Splash FS = Face Shield HP = Hearing Protection ³ RV = Reflective Vests ³

¹ - List all that apply, i.e., FF w/ OV/AG/P

² - Use same codes for clothing and boots of same material

³ Should be considered for all field jobs

Respiratory protection will be upgraded under the following conditions:

Sustained elevated PID readings > 5 ppm above background at breathing zone.

The following cartridge change out schedule is to be followed onsite (attach any calculations to plan):

SECTION 16: EMERGENCY ACTION PLAN

The following standard emergency response procedures will be used by onsite personnel. The Site Safety Officer shall be notified of any onsite emergencies and be responsible for ensuring that the appropriate procedure are followed.

(A) EVACUATION

All work activities are suspended and the site is to be EVACUATED IMMEDIATELY, when there is a threat to life or health as determined by individual good judgment, i.e. fire, hazardous chemical spill, dangerous gas leak, severe weather (i.e., tornado); or when notified by other site / facility staff and local fire or police officials.

If an evacuation is called for, the emergency alarm system for weather-related, medical, fire and other evacuation emergencies is:

Air Horn Blast

Evacuation from the Exclusion Zone should whenever possible occur through the decontamination line. In those situations where egress in this manner cannot occur, the following emergency escape routes have been designated (document on map if possible):

Once evacuated off site, all staff should gather at Flexo's facility which is a minimum of 250 feet away from the incident

(B) FIRE OR EXPLOSION

Upon discovery of a fire or an explosion, the above-designated emergency signal shall be sounded and all personnel shall assemble at the decontamination line. The fire department is to be notified and all personnel moved to a safe distance (minimum 250') from the involved area.

If a person's clothing should catch fire, burning clothing may be extinguished by having the individual drop to the floor and roll. If necessary, physically restrain the person and roll them around on the floor to smother the flames. Use a fire blanket or extinguisher if one is readily available and you have been trained in its use. Call emergency medical services if not already done so.

If a person's clothing should become saturated with a chemical, douse the individual with water from the nearest safety shower if available. Consult the chemical Material Safety Data Sheets (MSDSs) for further information. Call emergency medical services if indicated by the MSDSs.

NEVER RE-ENTER THE SITE / FACILITY until the emergency has been declared over and permission to re-enter has been given by site / facility health and safety staff or local fire or police officials. If any staff is unaccounted for, notify an individual in charge.

(C) MEDICAL EMERGENCY

If you discover a medical emergency and are by yourself, CALL OUT FOR HELP. When someone arrives, tell them to call for help. If no one comes or you know you are alone, provide whatever care you can for 1 minute, then make the call yourself. (See Section 2)

Upon notification of an injury in the Exclusion Zone, the designated emergency signal shall be sounded. All site personnel shall assemble at the decontamination line. The SSO or alternate should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement to the Support Zone. The onsite CPR/FA personnel shall initiate the appropriate first aid, and contact should be made for an ambulance (and other emergency services as needed) and with the designated medical facility (if required). No persons shall reenter the Exclusion Zone until the cause of the injury or symptoms is determined.

The hospital is 15 minutes from the site. Ambulance response time is 10 minutes. _____ of Buffalo General Hospital was contacted on _____ and briefed on the situation, the potential hazards, and the substances involved. When IDLH conditions exist, arrangements should be made for onsite standby of emergency services.

A map for directions to the nearest hospital is attached to this plan. If not, the directions are: _____

(D) SAFETY EQUIPMENT FAILURE

If any other equipment (i.e., air monitoring) on site fails to operate properly, the FTL and/or SSO shall be notified to determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the Work Plan tasks, all personnel shall leave the work area until the situation is evaluated and appropriate actions taken.

(E) FOLLOW UP

In all situations, when an on site / facility emergency results in evacuation of the work area, or a "large spill" has occurred, staff shall not resume work until:

- The conditions resulting in the emergency have been corrected;
- The hazards reassessed by the SSO and Corporate Health and Safety;
- The HASP has been reviewed by the SSO and Corporate Health and Safety; and
- Site personnel have been briefed on any changes in the HASP by the SSO.

SECTION 17: SPILL CONTAINMENT / CONTROL

THIS SECTION NOT APPLICABLE TO SITE ACTIVITIES

For most chemicals introduced to the worksite, or under control of Malcolm Pirnie employees, spills of chemicals would be considered incidental and would be controlled in the immediate area of the spill. Such spills shall be handled utilizing precautions appropriate for the chemical characteristics specified in the MSDS for the chemical including spill control methods and selection and use of minimum personal protective equipment.

For chemicals introduced to the worksite, or under control of Malcolm Pirnie employees, that would cause a "large spill" (greater than 55 gallons), a copy of the appropriate Emergency Response Guidebook (ERG) guide shall be attached to this plan, and a spill response contractor shall be identified in Section 2.

SECTION 18: EMPLOYEE ACKNOWLEDGEMENTS

PLAN REVIEWED BY:

DATE

Project Manager: Kent McManus _____

Project Leader: Jim Richertt _____

Local H&S Coordinator: Kathy Metzger _____

Corporate H & S Joe Golden _____

I acknowledge that I have read the information on this HASP, attached Material Safety Data Sheets (MSDSs), DOT Emergency Response Guides, and Health and Safety Programs. I understand the site / facility hazards as described and agree to comply with the contents of the plan.

EMPLOYEE (Print Name)

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

VISITOR (Print Name)

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

ATTACHED DOCUMENTS

- | | | | |
|---|--|---|--|
| <input type="checkbox"/> MSDS(s) | <input type="checkbox"/> Hazard Communication Written Program | <input type="checkbox"/> Confined Space Entry Written Program | <input type="checkbox"/> DOT ERG Guides |
| <input type="checkbox"/> Site Map | <input type="checkbox"/> Personal Protective Equipment Written Program | <input type="checkbox"/> Excavation Safety Plan | <input type="checkbox"/> Respiratory Protection Program |
| <input checked="" type="checkbox"/> Hospital Directions | <input type="checkbox"/> Emergency Action Plan | <input type="checkbox"/> Evacuation Routes | <input type="checkbox"/> Cartridge Change Out Calculations |
| <input type="checkbox"/> Other | | | |

MAPQUEST  Don't get stranded... build an emergency road kit.

Chevron with TECHRON.
Get better mileage tips for your trip.




» Find the fuel-efficient way to San Jose

Total Time: 6 minutes Total Distance: 2.30 miles

A: 1132 Seneca St, Buffalo, NY 14210-1533

- | | | |
|---|--|--------|
|  | 1: Start out going SOUTHEAST on SENECA ST/NY-16 toward MAURICE ST. | 0.7 mi |
|  | 2: Turn RIGHT onto BAILEY AVE/US-62. | 0.5 mi |
|  | 3: Turn SLIGHT LEFT onto MCKINLEY PKWY. | 0.3 mi |
|  | 4: MCKINLEY PKWY becomes SOUTHSIDE PKWY. | 0.0 mi |
|  | 5: Turn LEFT onto ABBOTT RD/CR-4. | 0.8 mi |
|  | 6: End at 565 Abbott Rd Buffalo, NY 14220-2039 | |

B: 565 Abbott Rd, Buffalo, NY 14220-2039

Total Time: 6 minutes Total Distance: 2.30 miles



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APPENDIX 1A

New York State Department of Health Generic Community Air Monitoring Plan

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 volatile organic compounds (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 NYSDEC/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. 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.

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

All 15-minute readings must be recorded and be available for State (DEC and DOH) 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.

- 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.
- 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.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.