

January 19, 2023

Mr. Steven Walsh Environmental Engineer New York State Department of Environmental Conservation 625 Broadway, 12th Floor Albany, New York 12233-7016

RE: INTERIM SITE MANAGEMENT PLAN COMMENT LETTER, FORMER CLEANERAMA SITE, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) #401056, 253 OSBOURNE ROAD, COLONIE, ALBANY COUNTY, NEW YORK 12211 (HRP #OSB0001.RA)

Dear Mr. Walsh,

HRP Associates, Inc. (HRP) has received the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) comment letter pertaining to the above-referenced Interim Site Management Plan (ISMP), submitted July 22, 2022. HRP has reviewed the comment letter, and offers the following revisions and comments:

- 1) Throughout Document The work plan should communicate that the Environmental Easement has not yet been recorded, but will be included in an updated ISMP after it is recorded by the county.
 - Appendix A Environmental Easement, has been removed. References to the Environmental Easement have been revised to "Future Environmental Easement". Additionally, the above language provided by NYSDEC has been added to the Responsibilities Section of Appendix C.
- 2) Section 1.3 Notification and Appendix B List of Site Contacts: the phone number for the NYSDOH should be changed to (518) 402-7883.
 - The former Appendix B was revised to Appendix A to accommodate for the removal of the Environmental Easement section. Appendix A has been revised to include the above-referenced telephone number.
- 3) Section 4.2 Soil Vapor Intrusion (SVI) Evaluation: the SVI evaluation should be carried out in accordance with the Guidance for Evaluating Soil Vapor Intrusion in New York State (NYSDOH 2006).
 - Section 4.2, has been revised to include the above-referenced comment.
- 4) Appendix C Excavation Work Plan:
 - a. Section C-1 Notification: it states that "at least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination... the site owner will notify the NYSDEC." The NYSDOH should also be notified of any and all groundintrusive activities.

Section C-1 (revised to Section B-1) of the Excavation Work Plan (EWP) has been revised to incorporate the NYSDOH in the agency notification process.

b. Section C-8 – Fluid Management: all dewatering water should be containerized and not discharged to the ground.

The above comment has been noted, and Section C-8 (revised to B-8) has been revised to include the above-referenced language.

c. Section C-10 – Backfill from off-site Sources: all imported soils should be covered when put in stockpiles until they are ready for use.

The above comment has been noted, and Section C-10 (revised to B-10) has been revised to include the above-referenced language.

d. Section C-12 – Excavation Contingency Plan: all excavated soils should be covered at the end of the day. While uncovered during work hours, wet methods and foams should be used to keep dusts from blowing and/or leaving the site.

The above comment has been noted, and Section C-12 (revised to B-12) has been revised to include the above-referenced language.

e. Section C-17 – Reporting: a Report should be submitted to both the NYSDEC and the NYSDOH (the Agencies) within 90 days of completion of activities. The community air monitoring plan (CAMP) should be used during all ground intrusive activities. All CAMP data should be sent to the Agencies daily for their review. The Agencies should be notified of any exceedances on the day of the exceedance, what was exceeded, and what steps were taken to correct the exceedance.

The above comments have been noted, and Section C-17 (revised to B-17) has been revised to include the above-referenced language.

5) Appendix F – CAMP is empty; however, the CAMP is included under Appendix H – Safety Data Sheets. The standard CAMP language should be included in Appendix F and the "Special Requirements" CAMP language for work performed within 20 feet of an occupied structure or utilized open area such as a playground or bus stop.

The above comment has been noted, and Appendix F (now included as Appendix D) has been revised to include the above-referenced language.

HRP has addressed the above comments and incorporated them into the revised ISMP. Please review the revised ISMP, and contact the undersigned at 518-877-7101, should you have any additional questions or comments.

Sincerely,

Stefan R. Truex, P.G. Senior Project Geologist

Mark Wright, P.G. Senior Project Manager



Former Cleanerama Site ALBANY COUNTY COLONIE, NEW YORK

INTERIM SITE MANAGEMENT PLAN

NYSDEC Site Number: 401056

Prepared for:

Osborne Ventures, LLC Thomas J. Burke 509 State Route 67 Malta, NY 12020

Prepared by:

HRP Associates, Inc. 1 Fairchild Square, Suite 110 Clifton Park, NY 12065 518-877-7101

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

JANUARY 2023

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CERTIFICATION STATEMENT

I, Glenn Netuschil, of HRP Associates, Inc. certify that I am currently a NYS registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

1=20-2023

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List of Acronyms

AS Air Sparging

ASP Analytical Services Protocol BCA Brownfield Cleanup Agreement BCP Brownfield Cleanup Program

BTEX Benzene, Toluene, Ethylbenzene, and Xylene

CERCLA Comprehensive Environmental Response, Compensation and Liability Act

CAMP Community Air Monitoring Plan
C/D Construction and Demolition
CFR Code of Federal Regulation
CLP Contract Laboratory Program
COC Certificate of Completion

CO2 Carbon Dioxide

CVOC Chlorinated Volatile Organic Compound

CP Commissioner Policy

DER Division of Environmental Remediation

ECL Environmental Conservation Law

ELAP Environmental Laboratory Approval Program

ERP Environmental Restoration Program

GHG Green House Gas

GWE&T Groundwater Extraction and Treatment

HASP Health and Safety Plan
IC Institutional Control
IRM Interim Remedial Measure

NYSDEC New York State Department of Environmental Conservation

NYSDOH New York State Department of Health NYCRR New York Codes, Rules and Regulations

OSHA Occupational Safety and Health Administration

OU Operable Unit PCE Tetrachlorethene

PID Photoionization Detector
PRP Potentially Responsible Party
PRR Periodic Review Report

QA/QC Quality Assurance/Quality Control
QAPP Quality Assurance Project Plan
RAO Remedial Action Objective
RAWP Remedial Action Work Plan

RCRA Resource Conservation and Recovery Act RI/FS Remedial Investigation/Feasibility Study

ROD Record of Decision RP Remedial Party

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SAC State Assistance Contract

SCG Standards, Criteria and Guidelines

SCO Soil Cleanup Objective ISMP Soil Management Plan

SOP Standard Operating Procedures

SOW Statement of Work

SPDES State Pollutant Discharge Elimination System

SSDS Sub-slab Depressurization System

SVE Soil Vapor Extraction
SVI Soil Vapor Intrusion
TAL Target Analyte List
TCL Target Compound List

TCLP Toxicity Characteristic Leachate Procedure
USEPA United States Environmental Protection Agency

UST Underground Storage Tank
VCA Voluntary Cleanup Agreement
VCP Voluntary Cleanup Program

VI Vapor Intrusion

VOC Volatile Organic Compound

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ES EXECUTIVE SUMMARY

Institutional Controls:

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring and reporting activities required by this Interim Site Management Plan (ISMP). The New York State Department of Environmental Conservation is responsible for the implementation of the remedial action program at this Site and for drafting a final SMP. This ISMP is to control activities pending completion of remedial action by the NYSDEC:

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1. The property may be used for commercial and industrial use:

21101101101101101	1. The property may be used for commercial and made and use,
	2. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Albany County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

- 3. Data and information pertinent to Site management must be reported at the frequency and in a manner as defined in this ISMP;
- 4. All future activities that will disturb remaining contaminated material must be conducted in accordance with this ISMP;
- 5. Access to the Site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the future Environmental Easement;
- 6. The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on **Figure 2**, and appropriate actions to address exposures must be implemented; and

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	7. Vegetable gardens and farming on the Site are prohibited.							
Inspections – To be performe	Frequency							
Site-wide Inspection	As needed							
Evaluations –								
Soil Vapor Intrusion eva	aluation	Upon change in use/as needed						
Monitoring – To be performe	d by NYSDEC							
Groundwater monitorin	g	As needed						
Reporting – To be performed	by NYSDEC							
Inspections		As needed						
Certification/PRR	As needed							
Final Construction Repo	Upon completion of Soil management/Excavation activities							

Further descriptions of the above requirements are provided in detail in the subsequent sections of this Interim Site Management Plan.

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1.0 INTRODUCTION

1.1 General

This Interim Site Management Plan (ISMP) is a required element of the remedial program for the Former Cleanerama Site located in Colonie, Albany County New York (hereinafter referred to as the "Site") (see **Figure 1**). The Site is currently in the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program as Site No. 401056 which is administered by New York State Department of Environmental Conservation (NYSDEC). The limits of the Site are shown on **Figure 2**.

The current Site Owner (Osborne Ventures, LLC) has entered into an Order on Consent and Administrative Settlement, Index No. CO4-20210310-71 with the NYSDEC on March 25, 2022. The Settlement Agreement notes that the current Site Owner entered into the Agreement with the NYSDEC and is not liable for any past, current, or future response costs associated with the remaining contamination (see Section 2.5) at and migrating from the Site. The NYSDEC will perform any required remedial action as per the Record of Decision (ROD) including any required inspections and/or any required groundwater monitoring at the Site. The Settlement Agreement provides that the NYSDEC is responsible for the implementation of the final remedial action program for the Site. A figure showing the Site location and boundaries of this Site is provided in Figure 1. The boundaries of the Site will be more fully described in the metes and bounds site description that will be part of the future Environmental Easement.

After completion of the remedial work by the NYSDEC it is expected that some contamination of groundwater will remain at this Site, which is hereafter referred to as "remaining contamination". Institutional Controls (ICs) are expected to be incorporated into the final Site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. The Environmental Easement that will be granted to the NYSDEC, and recorded with the Albany County Clerk, will require compliance with this ISMP and all ICs placed on the Site.

This ISMP is prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This ISMP may only be revised with the approval of the NYSDEC. It is expected that the ISMP may be superseded by a final SMP drafted by the NYSDEC.

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It is important to note that:

- This ISMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the ISMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC), release or closure letter.
- Failure to comply with this ISMP is a breach of the Order on Consent, Index No. CO4-20210310-71-for the Site.
- The obligations of the Site Owner are set forth in the Settlement Agreement.

All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the Site is provided in **Appendix A** of this ISMP.

This ISMP was prepared by HRP Associates, Inc., on behalf of Osborne Ventures, LLC, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 3, 2010, and the guidelines provided by the NYSDEC (NYSDEC, 2010). This ISMP addresses the means for implementing the ICs that are required by the Environmental Easement for the Site.

1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions may be necessary upon, but not limited to, the following occurring: a post-remedial removal of contaminated sediment or soil, or other significant change to the Site conditions. The NYSDEC will provide a notice of any approved changes to the ISMP and append these notices to the ISMP that is retained in its files. Because the NYSDEC is responsible for implementation of the remedial program at the Site, it is expected that the NYSDEC will eventually draft a final SMP.

1.3 Notifications

Notifications will be submitted by the Site owner to the NYSDEC, as needed, in accordance with NYSDEC's DER -10 for the following reasons:

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- Written 60-day advance notice of any proposed changes in Site use that are required under the terms of the Order on Consent, 6 NYCRR Part 375 and/or Environmental Conservation Law.
- 7-day advance notice of any field activity associated with the remedial program.
- Written 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (EWP).

Any change in the ownership of the Site or the responsibility for implementing this ISMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of
 the proposed change. This will include a certification that the prospective
 purchaser/Remedial Party has been provided with a copy of the Order of
 Consent and all approved work plans and reports, including this ISMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1 on this page includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in **Appendix A**.

Table 1: Notifications*

Name	Contact Information
Steven Walsh, NYSDEC Project Manager	steven.walsh@dec.ny.gov 518-402-9824
Thomas J. Burke, Osborne Ventures, LLC	tburke270@gmail.com
Jacquelyn Nealon, NYSDOH Project Manager	jacquelyn.nealon@health.ny.gov 518-402-7883

^{*} Note: Notifications are subject to change and will be updated as necessary.

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2.0 SUMMARY OF PREVIOUS REMEDIAL INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The Site is located at 253 Osborne Road in the Town of Colonie, Albany County, New York, and is identified as Section 43, Block 1 and Lot 10 (SBL) number 43.3-1-10 on the Albany County Tax Map (see **Figure 1**). The Site is an approximately 0.9-acre area and is located near the intersection of Albany-Shaker Road and Osborne Road (see **Figure 2**). The boundaries of the Site will be more fully described in the future Environmental Easement. The Owner(s) of the Site parcel(s) at the time of issuance of this ISMP is/are:

Osborne Ventures, LLC 509 State Route 67 Malta, NY 12020

2.2 Physical Setting

2.2.1 Land Use

The Site previously consisted of a strip mall that had included the Former Cleanerama dry cleaner that operated from approximately 1960 to 1995. In the summer of 2010, the strip mall was demolished (ARCADIS, 2017). The Site is zoned commercial and is currently vacant and undeveloped.

The properties adjoining the Site and in the area surrounding the Site primarily include commercial properties. The commercial properties surrounding the Site include restaurants, a bank, a store, a pharmacy, and a gas station.

2.2.2 Geology

The soil at the Site consists of poorly graded sand and silt. Glacial till (silt, gravel, and clay) underlain by an approximately 1-foot-thick layer of weathered bedrock (shale and siltstone) are sitting on top of bedrock. Bedrock was found at depths from 4.5 feet below ground surface (ft bgs) at the east end of the Site to 40 ft bgs at the west end of the Site (ARCADIS, 2017). A geologic cross section is shown in **Figure 3**.

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2.2.3 Hydrogeology

Depth to groundwater follows the lay of bedrock in the subsurface and varies greatly (approximately 31 feet) from east to west across the Site. Depth to water at Site ranges from 6 to 9 ft bgs at the eastern side of the Site and increases to 29 ft bgs at the western edge of the Site. Groundwater flow direction is to the west-northwest. There are no surface water bodies or potable water wells identified near the Site. Sand Creek is the closest water body and is located approximately 500 feet west of the Site (ARCADIS, 2017). A groundwater flow direction map is shown in **Figure 4**. The groundwater monitoring wells were last sampled in July 2018.

2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in **Section 6.0**. A list of investigation reports and work plans relevant to the following discussion is included in **Table 2**.

2.3.1 Site Ownership

The previous owners of the Site prior to 2003 are not known. Osborne Road Associates, LLC., owned the Site after 2003. The Site was purchased by Walgreens Eastern Company, Inc. (Walgreens). The current Site Owner purchased the Site from Walgreens in July 2022. The NYSDEC has responsibility for the environmental remediation and monitoring related to past releases on the Site.

2.3.2 Former Cleanerama Dry Cleaner

The former Cleanerama dry cleaner operated onsite from approximately 1960 to 1995. It is believed the dry-cleaning operation used tetrachloroethene (PCE) in their cleaning operations and may have discharged PCE to the on-site septic system until the Site was hooked up to the municipal sewer in 1968.

Phase I Environmental Assessment and Limited Phase II Investigation Report (CPI, 2003). Trichloroethene (TCE) and PCE contamination in soil and groundwater onsite was initially discovered in April 2003 during the Phase 2 investigation. PCE was detected above the NYSDEC's groundwater standards and guidance values (SGVs) and the

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NYSDEC assigned Spill Number 03-05984 to the Site. In October 2013, approximately 234 tons of impacted soil were excavated from the old septic tank and leach field. Post-excavation soil samples were below the NYSDEC soil cleanup objectives (SCOs) and the spill number was closed.

Soil Removal, Septic Clean-Out and Soil Vapor Study (CPI, 2007). Additional PCE contamination was discovered in 2007 in the area of the second septic tank system and was reported to the NYSDEC and Spill No. 07-02543 was assigned to the Site. In December 2007, approximately 191 tons of soil were excavated from the area of the second septic tank system.

Final Remedial Investigation Report (Shaw, 2015). A Remedial Investigation (RI) was completed in 2015. The RI included the removal of approximately 98 tons of impacted soil as an Interim Remedial Measure (IRM). At the conclusion of the RI a Feasibility Study (FS) was completed by NYSDEC to evaluate potential remedies for the Site.

Pre-Design Investigation Report (ARCADIS, 2017). In December 2016, a pilot study was conducted at the Site to test the effectiveness of a proprietary chemical reagent, EHC[®]-Liquid (EHC-L) mixed with emulsified vegetable oil (EVO) for the treatment of VOCs in the Site groundwater via enhanced reductive dichlorination (ERD).

Two injection wells (IW-1 and IW-2) were installed in August 2016. In December 2016, a total of 2,697 gallons of EHC-L was injected in IW-1, followed by a total of 1,930 gallons into IW-2. The performance monitoring conducted in March and June 2017 indicated that an anerobic environment in the subsurface was created but with limited effectiveness due to the heterogeneity in the hydrogeologic conditions. The report recommended using EVO for the full-scale remediation.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Record of Decision dated March 31, 2015, are as follows.

2.4.1 Groundwater

RAOs for Public Health Protection

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- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground- or surface water contamination.

2.4.2 Soil Vapor

RAOs for Public Health Protection

• Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a Site.

2.5 Remaining Contamination

VOC-contaminated groundwater is detectable at the Site at concentrations exceeding the groundwater standards, as set forth in NYSDEC's *Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values* (SGVs) (NYSDEC, 1998a).

The soil clean-up levels at this Site are defined by NYSDEC's Unrestricted Use Soil Cleanup Objectives (UUSCOs). In addition, identified source areas in the former Cleanerama dry cleaner area, had subsurface soils impacted with VOCs at levels in excess of the UUSCOs; this area was the subject of investigations and remedial excavation activities and off-site disposal from 2007 to 2014.

Descriptions of residual contamination for each media type are presented below. A list of investigation reports and work plans relevant to the Site history as well as current Site conditions is provided in **Table 2**.

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2.5.1 Soil

The three remedial excavation activities discussed in Section 2.3.2 resulted in the removal of approximately 523 tons of VOC-impacted soil. The post-excavation confirmation soil sample results from the three excavation activities were all below the UUSCOs, therefore, all known soil impacts have been removed and no remaining soil contamination is present at the Site.

2.5.2 Groundwater

VOC-contaminated groundwater is detectable at the Site at concentrations exceeding the groundwater standards, as set forth in NYSDEC's Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (SGVs) (NYSDEC, 1998a). Concentrations of PCE, TCE, cis-1,2-Dichloroethene (cis-1,2-DCE), and vinyl chloride (VC) were detected above the TOGS guidance values during the Site characterization and remedial investigation activities. **Table 3** summarizes the results of samples of groundwater that exceed the NYSDEC's standards, criteria, and guidelines (SCGs) collected from September 2016 to July 2018.

2.5.3 Soil Vapor

The buildings at the Site were demolished in August 2010. The soil vapor intrusion guidance document for evaluating soil vapor intrusion is based on a comparison of subsurface soil vapor and aboveground indoor air soil vapor. As there are no buildings on the Site, the soil vapor investigation was conducted on the adjacent property located at 469-471 Albany-Shaker Road. Therefore, there are no known soil vapor issues at the Site. However, if the Site is redeveloped, a soil vapor investigation will be conducted by the Site owner on any new buildings to determine the need for a vapor mitigation system.

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3.0 INSTITUTIONAL CONTROL PLAN

3.1 General

Since remaining contamination exists at the Site, Institutional Controls (ICs) are required to protect human health and the environment. This IC Plan describes the procedures for the implementation and management of all ICs at the Site. The IC Plan is one component of the ISMP and is subject to revision by the NYSDEC.

This plan provides:

- A description of all ICs on the Site;
- The basic implementation and intended role of each IC;
- A description of the key components of the ICs to be set forth in the future Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of ICs, such as the implementation of the Excavation Work Plan (EWP) (as provided in **Appendix B**) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the ICs required by the Site remedy, as determined by the NYSDEC.

3.2 Institutional Controls

A series of ICs is required by the ROD to: (1) prevent future exposure to remaining contamination; and (2) limit the use and development of the Site to commercial uses only. Adherence to these ICs on the Site will be required by the future Environmental Easement and will be implemented under this ISMP. ICs to be identified in the future Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are shown on **Figure 2**. These ICs are:

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- The property may be used for: commercial and industrial use;
- The use of groundwater underlying the property is prohibited without necessary
 water quality treatment as determined by the NYSDOH or the Albany County
 Department of Health to render it safe for use as drinking water or for industrial
 purposes, and the user must first notify and obtain written approval to do so
 from the Department;
- Data and information pertinent to Site management must be reported at the frequency and in a manner as defined in this ISMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this ISMP;
- Access to the Site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions to be identified by the future Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on **Figure 2**, and appropriate actions to address exposures must be implemented; and
- Vegetable gardens and farming on the Site are prohibited.

3.3 Site-wide Inspection

Site-wide inspections will be performed by the NYSDEC on an as-needed basis. Site-wide inspections may also be performed after all severe weather conditions that may affect the remaining contamination at the Site. A comprehensive site-wide inspection will be conducted and documented according to the ISMP schedule, regardless of the frequency of the Periodic Review Report.

The NYSDEC will provide and use their inspection form for the Site. The inspections will determine and document the following:

• Compliance with all ICs, including Site usage;

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- General Site conditions at the time of the inspection;
- The Site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this ISMP and the future Environmental Easement; and
- If Site records are complete and up-to-date.

Reporting requirements are outlined in **Section 5.0** of this plan.

Inspections will also be performed in the event of an emergency. An inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the ICs implemented at the Site by the NYSDEC.

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4.0 PERIODIC ASSESSMENTS/EVALUATIONS

4.1 Climate Change Vulnerability Assessment

Climate change vulnerability assessments, if necessary, will be completed by NYSDEC.

4.2 Soil Vapor Intrusion Evaluation

A soil vapor intrusion (SVI) evaluation must be performed upon a change in use of the property that will result in occupancy of a previously unoccupied building or initial occupancy of a new building. The breadth of this evaluation will be determined based upon discussion with the NYSDEC Project Manager and NYSDOH. Based upon these discussion and agency requirements, a work plan may need to be developed that requires that sampling be performed. The SVI evaluation will be completed in accordance with the Guidance for Evaluating Soil Vapor Intrusion in New York (NYSDOH 2006). At a minimum, a SVI sampling work plan would include the following information:

- A figure showing the soil vapor intrusion sample locations;
- Discuss the depths of the soil vapor samples; and
- Include a table of sample locations and analytical parameters to be analyzed along with the minimum reporting limits to be achieved by the NYS ELAP-certified laboratory.

Upon completion of the evaluation, if an action is required, any actions taken or to be taken must be reflected in either an updated ISMP or the final NYSDEC SMP.

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5.0. REPORTING REQUIREMENTS

5.1 Site Management Reports

All Site management inspection events will be performed and recorded by the NYSDEC.

5.2 Periodic Review Report

Periodic Review Reports, if necessary, will be completed by the NYSDEC.

The Periodic Review Report (PRR) will consist only of the certification as specified in **Section 5.2.1** except in the event where there have been changes to the Site or data gathered during the certifying period. Given such an event, the submittal of a comprehensive PR report will be necessary, as specified below.

5.2.1 Certification of Institutional Controls

The maintenance, inspection, and certification of Institutional controls will be completed by the NYSDEC.

5.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, the NYSDEC will develop and implement a Corrective Measures Workplan.

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6.0 REFERENCES

6 NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

ARCADIS, 2017. Pre-Design Investigation Report, Former Cleanerama Site, Site No. 401056, Colonie, New York. November 2017.

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CPI Environmental Services, 2007. Soil Removal, Septic Clean-Out and Soil Vapor Study Report, Former Cleanerama Site, Site No. 401056, Colonie, New York.

CPI Environmental Services, 2008. Soil, Groundwater, and Soil Vapor Sampling Report, Former Cleanerama Site, Site No. 401056, Colonie, New York.

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NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

Shaw Environmental & Infrastructure Engineering, 2015. Final Remedial Investigation Report, Former Cleanerama Site (Site No. 401056) and Surrounding Properties, Colonie, New York. January 2015.

Shaw Environmental & Infrastructure Engineering, 2015. Final Feasibility Study Report, Former Cleanerama Site (Site No. 401056) and Surrounding Properties, Colonie, New York. February 2015.

LIST OF TABLES

Table 2 List of Investigation Reports Interim Site Management Plan Former Cleanerama Site Colonie, New York

Document Title	Document Date	Document Generator
Phase I Environmental Site Assessment and Limited Phase 2 Investigation Report	April-03	СЫ
Soil Removal, Septic Clean-Out and Soil Vapor Study	2007	CPI
Soil, Groundwater, and Soil Vapor Sampling Report	2008	CPI
Final Remedial Investigation Report	January-15	Shaw
Final Feasibility Study Report	February-15	Shaw
Pre-Design Investigation Report	November-17	Arcadis
July 2018 Groundwater Samplina Letter Report	September-18	Arcadis

Table 3 Summary of Groundwater VOC Results Former Cleanerama Site Site Number 401056

Sample ID	NYSDEC	OS-1	OS-1	OS-1	OS-1	OS-1	OS-4	OS-4	OS-4	OS-4	OS-4	OS-9	OS-9	OS-9	OS-9	OS-9	OS-10	OS-10	OS-10	OS-10	OS-10	OS-12	OS-12	OS-12	OS-12	OS-12
Sampling Date	GA Standard	9/22/2016	1/25/2017	3/23/2017	6/7/2017	7/10/2018	9/22/2016	1/25/2017	3/21/2017	6/7/2017	7/10/2018	9/21/2016	1/26/2017	3/21/2017	6/8/2017	7/10/2018	9/21/2016	1/26/2017	3/21/2017	6/7/2017	7/12/2018	9/21/2016	1/30/2017	3/24/2017	6/8/2017	7/13/2018
Units	ua/L	ug/L	ua/L	ua/L	ua/L	ua/L	ua/L	ua/L	ug/L	ua/L	ug/L	ua/L	ua/L	ua/L	ua/L	ug/L	ua/L	ua/L	ua/L	ug/L	ug/L	ua/L	ua/L	ua/L	ua/L	ug/L
1,1,1-TRICHLOROETHANE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.1.2.2-TETRACHLOROETHANE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	1	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHENE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-TRICHLOROBENZENE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DIBROMOETHANE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROBENZENE	3	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	0.6	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROPROPANE	1	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROBENZENE	3	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	3	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-HEXANONE	50	20 U	20 U	20 U	20 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
ACETONE	50	40 U	40 U	40 U	40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	4.9 J	6.0 J	6.6 J	10 U	23	10 U	10 U	10 U	10 U	10 U
BENZENE	1	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	50	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOFORM	50	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BROMOMETHANE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CARBON DISULFIDE		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U
CARBON TETRACHLORIDE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROFORM	7	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROMETHANE		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,2-DICHLOROETHYLENE	5	4.0 U	4.0 U	4.0 U	4.0 U	5.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	34	1.0 U	1.4	1.0	2.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CYCLOHEXANE		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DIBROMOCHLOROMETHANE	50	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
DICHLORODIFLUOROMETHANE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ETHYLBENZENE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
ISOPROPYLBENZENE (CUMENE)	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
METHYL ACETATE		10 U	10 U	10 U	10 U	10 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	2.0 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
METHYL ETHYL KETONE (2-BUTANONE)	50	40 U	40 U	40 U	40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		7.6 J	1.0 U	10 U	10 U	10 U	10 U
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)		20 U	20 U	20 U	20 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U		2.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
METHYLCYCLOHEXANE METHYLENE CHLORIDE	5	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U 0.96 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
STYRENE CHLORIDE	5	4.0 U	4.0 U	4.0 U 4.0 U	6.0 J	4.0 U	1.0 U	1.0 U		1.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U		1.0 U	0.58 JB	1.0 U	1.0 U	1.0 U 1.0 U
			4.0 U		4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
TERT-BUTYL METHYL ETHER TETRACHLOROETHYLENE	10 5	4.0 U 150	4.0 U 240	4.0 U 490	4.0 U 380	4.0 U	1.1 0.65 J	1.2 0.88 J	0.31 J	0.42 J 0.65 J	0.63 J 0.61 J	1.0 U	1.0 U 1.0 U	1.0 U 1.6	1.0 U 1.0 U	1.0 U	1.0 U	1.0 U 3.4	1.0 U		2.0 U 2.6	1.0 U	1.0 U 1.9	1.0 U	1.0 U	1.0 U
	5	4.0 U				210														10		23		3.2		
TOLUENE TRANS-1,2-DICHLOROETHENE	5	4.0 U	4.0 U 4.0 U	4.0 U 4.0 U	4.0 U 4.0 U	4.0 U 4.0 U	1.0 U 1.0 U	1.0 U	1.0 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U	1.0 U 1.0 U	1.0 U 1.0 U	2.0 U 2.0 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U 1.0 U	1.0 U 1.0 U
TRANS-1,3-DICHLOROPROPENE	0.4	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHYLENE	5	5.7	7.5	4.0 0	9.4 J	24	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.2	0.7 J	2.5	1.6	3.0	0.48 J	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROFLUOROMETHANE	5	3.7 4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6 1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	2	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
XYLENES, TOTAL		8.0 U	8.0 U	4.0 U	8.0 U	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U
ATELNEO, TOTAL		0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	2.0 0	1.0 0	2.0 0	1.0 0	2.0 0	2.0 0	2.0 0	2.0 0

NYSDEC GA GW Standard - New York State Department of Environmental Conservation Groundwater Standard.

- Concentration exceeds NYSDEC Class GA Standard. U - Compound was not detected at the indicated concentration.

J - Compound detected below the reporting limit or

reported concentration is estimated.

B - Compound was found in both the laboratory blank and the sample.

µg/L - Micrograms per Liter

1-This is a duplicate sample from IW-1.

LIST OF FIGURES

HRP ASSOCIATES, INC. **SITE MANAGEMENT PLAN**Figure 1

Figure 1 Site and Vicinity

ARCADIS Design & Consultancy for natural and built assets

Former Cleanerama Site (Site # 401056) Loudonville, Albany County, New York

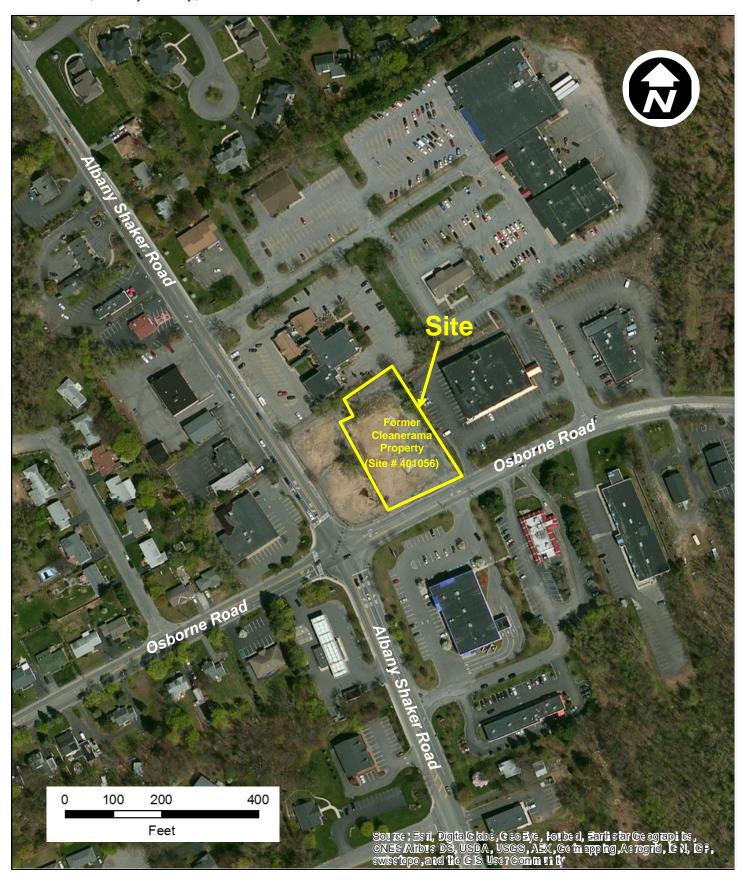




Figure 3
Geologic Cross-section

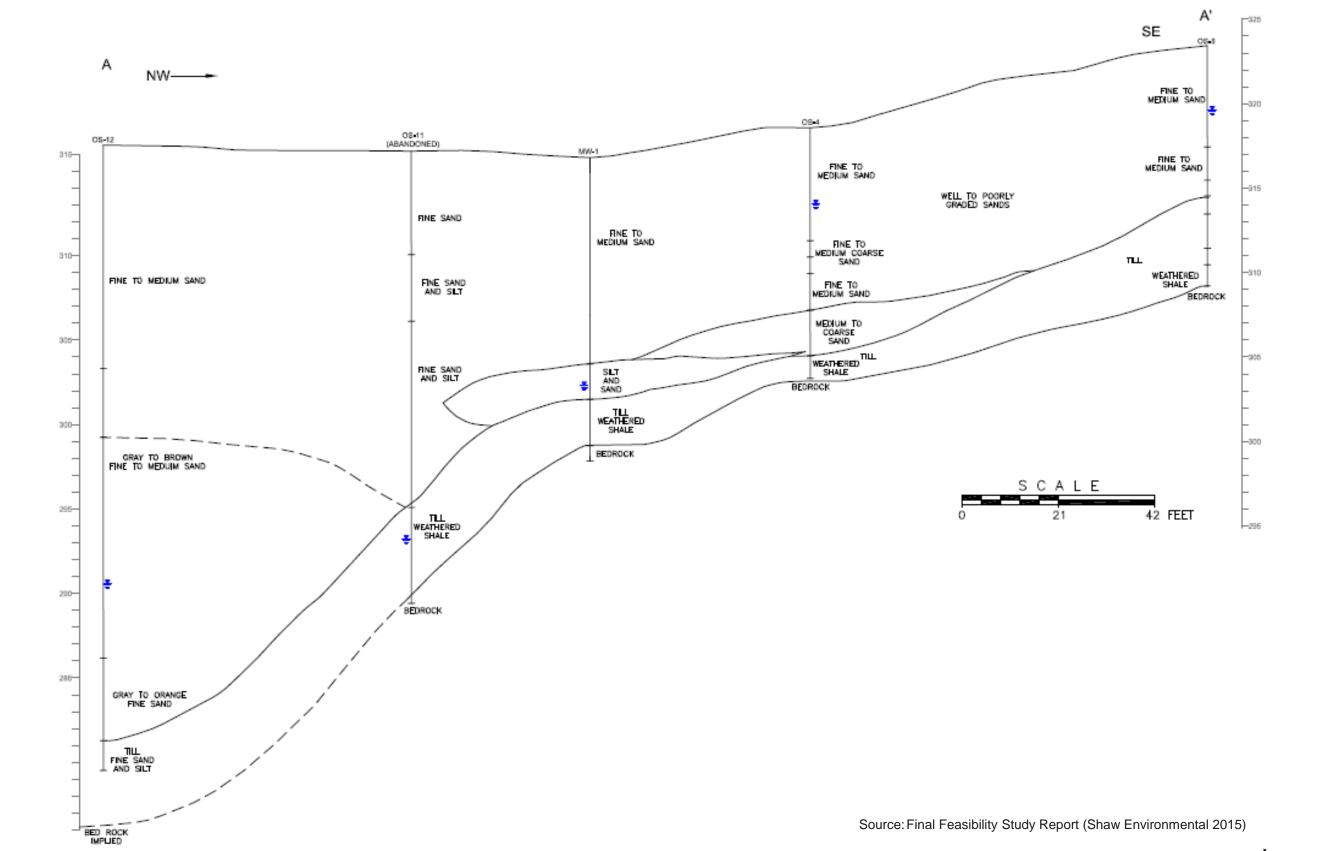
HRP ASSOCIATES, INC.

INTERIM SITE MANAGEMENT PLAN

Figure 3



Former Cleanarama (Site #401056) Loudonville, Albany County, New York

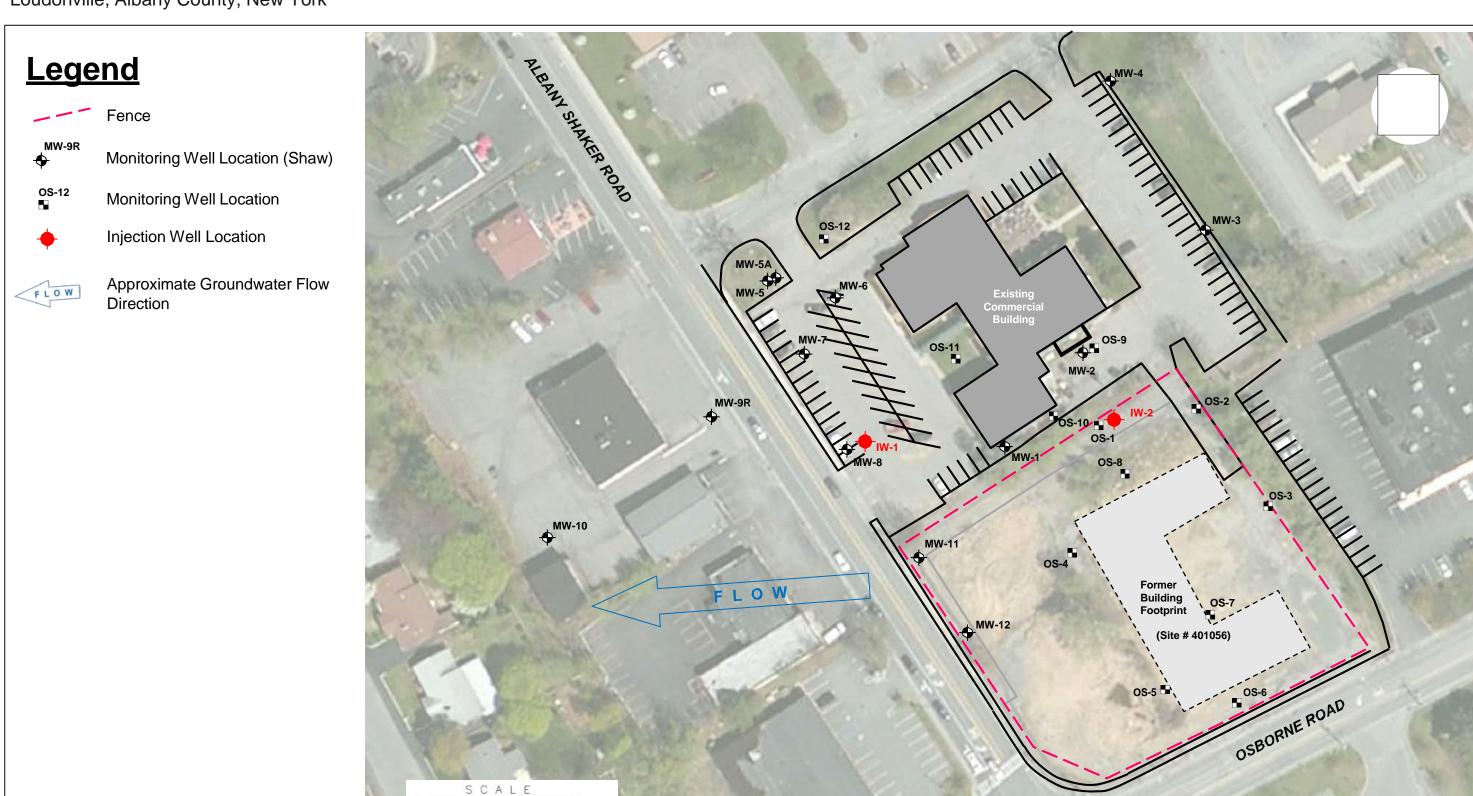


HRP ASSOCIATES, INC.

INTERIM SITE MANAGEMENT PLAN Figure 4

Former Cleanerama Site (Site # 401056) Loudonville, Albany County, New York





APPENDICES

APPENDIX A: LIST OF SITE CONTACTS

Name	Phone/Email Address
Site Owner Thomas J. Burke, Osbourne Ventures, LLC	518-281-7226 tburke270@gmail.com
Qualified Environmental Professional Mark Wright, P.G., HRP Associates, Inc.	518-877-7101 mark.wright@hrpassociates.com
NYSDEC DER Project Manager Steven Walsh	518-402-9824 steven.walsh@dec.ny.gov
NYSDOH Project Manager Jacquelyn Nealon	518-402-7883 jacquelyn.nealon@health.ny.gov

APPENDIX B: EXCAVATION WORK PLAN (EWP)

B-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH).

Currently, this notification will be made to:

Steven Walsh
New York State Department of Environmental Conservation
625 Broadway, 11th Floor
Albany, NY 12233
518-402-9662
steven.walsh@dec.ny.gov

Jacquelyn Nealon
New York State Department of Health
Corning Tower
Empire State Plaza
Albany, NY 12237
518-402-7883
jacquelyn.nealon@health.ny.gov

A full listing of site-related contact information is provided in **Appendix A**.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for Site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the
 work areas, including the nature and concentration levels of contaminants of
 concern, potential presence of grossly contaminated media, and plans for any
 pre-construction sampling;

- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the Site's Health and Safety Plan (HASP), in electronic format, if it differs from the HASP provided in **Appendix D** of this Interim Site Management Plan (ISMP);
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

B-2 SOIL SCREENING METHODS

Visual, olfactory, and instrument-based (e.g., photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the Certificate of Completion (COC).

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Section D-6 of this Appendix.

B-3 SOIL STAGING METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales or other barriers will be used as needed near catch basins, surface waters, and other discharge points. Unless material is being added to or loaded from a stockpile, stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected, and damaged tarp covers will be promptly replaced.

Stockpiles will be visually inspected at a minimum once each week and after every storm event.

B-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this ISMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested (where applicable), and placarded in accordance with appropriate federal, state, local, and NYSDOT requirements (and all other applicable transportation requirements).

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of offsite soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

B-5 MATERIALS TRANSPORT OFF-SITE

All transport of contaminated materials will be performed by licensed haulers in accordance with appropriate federal, state, and local regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded if contaminated soils are involved.

Impacted material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes will vary depending on the work location and disposal destination.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

B-6 MATERIALS DISPOSAL OFF-SITE

Unless otherwise permitted, all material excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all federal, state (including 6 NYCRR Part 360), and local regulations. If disposal of material from this Site is proposed for unregulated off-site disposal (i.e., clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e., hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include waste profiles, test results, facility acceptance letters, manifests, bills of lading, and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6 NYCRR Part 360-1.2. Material that does not meet Unrestricted Soil Cleanup Objectives (SCOs) is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility).

B-7 MATERIALS REUSE ON-SITE

The qualified environmental professional will ensure that procedures defined for materials reuse in this ISMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site will not be reused on-site.

B-8 FLUIDS MANAGEMENT

All liquids to be removed from the Site, including but not limited to, excavation dewatering, will be containerized, handled, transported, and disposed in accordance with applicable federal, state, and local regulations. Dewatering will not be recharged back to the land surface or subsurface of the Site and will be managed off-site.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream, or river) will be performed under a State Pollutant Discharge Elimination System (SPDES) permit.

B-9 RESERVED

B-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the Site will be approved by the qualified environmental professional and will be in compliance with provisions in this ISMP prior to receipt at the Site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site.

All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d), as demonstrated by analytical testing performed by the Site owner. Analytical data will be submitted to NYSDEC for review and approval prior to importing material. Based on an evaluation of the land use, protection of groundwater, and protection of ecological resources criteria, the resulting soil quality standards are NYSDEC Commercial SCOs. Soils that meet "exempt" fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases. All imported soils will be covered until they are ready for use.

B-11 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the ISMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

B-12 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development-related construction, excavation activities will be suspended until sufficient equipment is mobilized by the NYSDEC to immediately address the condition.

All excavated soils should be covered at the end of the day. While uncovered during work hours, wet methods and foams should be used to keep dusts from blowing and/or leaving the Site.

Sampling will be performed on product, sediment, and surrounding soils, etc., as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals, TCL volatiles and semi-volatiles, TCL pesticides, and PCBs), unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

B-13 COMMUNITY AIR MONITORING PLAN

The Community Air Monitoring Plan (CAMP) will follow the guidance provided in the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan found in Appendix 1A of NYSDEC's *Technical Guidance for Site Investigation and Remediation* (DER-10). The upwind and downwind monitoring locations required in the generic CAMP will be determined based on the prevailing wind direction at the start of work. These locations will be adjusted on a daily or more frequent basis based on actual wind directions and work locations to provide an upwind and at least two downwind monitoring stations. Volatile organic compounds (VOCs) monitoring will be performed using a photoionization detector (PID). Particulate monitoring will be performed using real-time monitoring equipment.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers on the day of exceedance. All data is to be reported in the final report for the excavation activity.

B-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis will include limiting the area of open excavations and the size of soil stockpiles and covering soil stockpiles. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events within one day of the odor event and notified of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the Site Owner's qualified environmental professional and any measures that are implemented will be discussed in the Excavation Activities Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

B-15 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.
- Ventilation, curtains, and/or enclosures may be used for indoor dust control.

B-16 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the Contractor prior to and during Site clearing and Site grubbing, and during all remedial work.

A plan will be developed and utilized by the Contractor for all remedial work to ensure compliance with local noise control ordinances.

B-17 REPORTING

A report is to be submitted to the NYSDEC within 90 days of completion of the activities performed under this EWP. The CAMP should be used during all ground intrusive activities. All CAMP data should be sent to the NYSDEC and NYSDOH on a daily basis for review. The agencies should be notified of any exceedances on the day of the exceedance, what was exceeded, and what steps were taken to correct the exceedance.

This report shall contain a summary of the activities performed; a summary of all data gathered and results; information about any media that was removed from the Site: volume, contamination levels, and area from which removed; and any other information that may indicate a change to the "remaining contamination" that is at the Site. Such changes may require revision of the ISMP.

APPENDIX C: RESPONSIBILITIES of OWNER and REMEDIAL PARTY

Responsibilities

The responsibilities for implementing the Site Management Plan ("ISMP") for the Former Cleanerama Site (the "site"), number 401056, are divided between the Site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:

Osborne Ventures LLC, 509 State Route 67, Malta, New York (the "owner").

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or Site management, the NYSDEC and/or an agent acting on its behalf. The RP is: NYSDEC.

Nothing on this page shall supersede the provisions of the future Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the Site. The Environmental Easement is not yet recorded, but will be included in an updated ISMP after it has been recorded by the county.

Site Owner's Responsibilities

- 1) The owner shall follow the provisions of the ISMP as they relate to future construction and excavation at the Site.
- 2) The owner shall grant access to the Site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the ISMP and assuring compliance with the ISMP.
- 3) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. In the event that damage to the remedial components or vandalism is evident, the owner shall notify the Site's RP and the NYSDEC in accordance with the timeframes indicated in **Section 1.3 Notifications**.
- 4) In the event some action or inaction by the owner adversely impacts the Site, the owner must notify the Site's RP and the NYSDEC in accordance with the time frame indicated in Section 1.3 Notifications.

- 5) The owner must notify the RP and the NYSDEC of any change in ownership of the Site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the Site property. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 2.4 of the ISMP. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.
- 6) Until such time as the NYSDEC deems the vapor mitigation system unnecessary, the owner shall operate the system, pay for the utilities for the system's operation, and report any maintenance issues to the RP and the NYSDEC.
- 7) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the Site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

Remedial Party Responsibilities

- 1) The RP must follow the ISMP provisions regarding any construction and/or excavation it undertakes at the Site.
- 2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated ISMPs.
- 3) Before accessing the Site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the ISMP, a copy of any data generated during the Site visit and/or any final report produced.

- 4) If the NYSDEC determines that an update of the ISMP is necessary, the RP shall update the ISMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved ISMP to the owner(s).
- 5) Any change in use, change in ownership, change in Site classification (e.g., delisting), reduction or expansion of remediation, and other significant changes related to the Site may result in a change in responsibilities and, therefore, necessitate an update to the ISMP and/or updated legal documents. The RP shall contact the Department to discuss the need to update such documents.

Change in RP ownership and/or control and/or Site ownership does not affect the RP's obligations with respect to the Site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future Site owners and RPs and their successors and assigns are required to carry out the activities set forth above.

APPENDIX D:

HEALTH AND SAFETY PLAN and COMMUNITY AIR MONITORING PLAN

A Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) will be prepared by a qualified person in accordance with the most recently adopted and applicable general industry (29 CFR 1910) and construction (29 CFR 1926) standards of OSHA, the U.S. Department of Labor, as well as any other federal, state, or local applicable statutes or regulations. The CAMP must include the appropriate requirements identified by the NYSDOH. Both documents shall be prepared in accordance with NYSDEC's DER-10. At a minimum, the HASP will include a description of the health and safety procedures associated with both performance monitoring of the remedial system(s) and effectiveness monitoring. A copy of the HASP will be available at the Site during the conduct of all activities to which it is applicable.



SITE-SPECIFIC HEALTH AND SAFETY PLAN (HASP)

Former Cleanerama Site - Site # 401056

253 Osborne Road, Colonie, Albany County, New York

Prepared For:

Osborne Venture, LLC Thomas J. Burke 509 State Route 67 Malta, NY 12020

Prepared By:

HRP Associates, Inc. 1 Fairchild Square, Suite 110 Clifton Park, NY 12065

HRP #: OSB0001.RA

Issued On: July 13, 2022

Addendum Number	Date Issued	Reason for Modification	



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Appendix D	Daily Job Brief Record
Appendix E	Equipment Calibration Log
Appendix F	Community Air Monitoring Plan
Appendix G	COVID-19 Health and Safety Guidelines
Appendix H	Safety Data Sheets (for chemicals brought to the site)



1.0 EMERGENCY CONTACTS/PLANNING

The Health and Safety Officer will coordinate the entry and exit of response personnel in the event of an emergency. The following information, including directions to the nearest hospital shall be posted at the Site. When contacting the local authorities, be sure to provide: your name, facility name, full address, telephone number, and the nature of the emergency.

Emergency Phone Numbers 253 Osborne Road, Colonie, New York		
Emergency Contact	Phone Number	
Fire, Ambulance, Police Emergency:	911	
Town of Colonie Police Department (routine calls):	518-783-2811	
Colonie Village Fire House (routine calls):	518-869-9306	
Albany Memorial Hospital:	518-471-3221	
Poison Control Center:	1-800-222-1222	
DEC Spills Hotline:	1-800-457-7362	
National Response Center:	800-424-8802	
Project Manager: Mark Wright	203-308-0983	
Site Safety Officer:	518-877-7101	
NYSDEC Project Manager: Steven Walsh	518-402-9824	

Map and directions to the following medical facilities are provided in **Figure 3**:

Albany Memorial Hospital - located at 600 Northern Blvd, Albany, NY (approximately 4.6 miles from the work site)

First Aid, Fire Protection, Emergency Response Equipment Storage Locations		
First Aid Kit: In Vehicle		
Fire Extinguisher: In Vehicle		
Eye Wash (Bottle): In Vehicle		
Hand Washing Station In Vehicle		

A Safety and Logistics Planning call will be held prior to conducting any intrusive activities at the site. Representatives from HRP and each subcontractor will attend the call to discuss logistical and safety challenges general to the scope of work and specific to the Site. This call is documented on the Safety and Logistics Planning Call Log in **Appendix A.**



2.0 INTRODUCTION

2.1 Purpose and Scope

This Health and Safety Plan (HASP) addresses the health and safety practices that will be employed by HRP Associates, Inc. personnel and our subcontractors participating in the Remedial Design (RD) and associated investigation that will be performed at the site. The RD will be comprised of several tasks to evaluate the environmental condition of the Site and the surrounding area, including installation of soil borings and monitoring wells to collect soil and groundwater samples.

This HASP has been developed in accordance with HRP's Generic Safety and Health Program as required under OSHA's Hazardous Waste Operations Standard (29 CFR 1910.120). This Plan has been developed to establish minimum standards necessary for onsite investigation activities to protect the health and safety of HRP personnel. HRP site personnel have received the required level of training and field experience as required under subpart (e) of the Standard, and have received medical examinations in accordance with HRP's medical surveillance program as required under subpart (f) of the Standard. No other personnel will be permitted in the Exclusion Zone unless they have received training and medical surveillance under the Standard.

HRP personnel and associated contractors shall be familiar with this HASP prior to conducting proposed site work. This plan must be present on site and be available for reference/inspection when the subject site work is being conducted.

2.2 Site Information and Areas of Environmental Concern

2.2.1 Site Information and Description

Site Name: Former Cleanerama Site

Site Address: 253 Osborne Road, Colonie, NY 12205

Site Contact: Steven Walsh

Email: Steven.walsh@dec.ny.gov

2.3 Background and Project Description

The Site is an approximately 0.9-acre property located east of the intersection of Osborne Road and Albany-Shaker Road in Colonie, Albany County, New York. Depth to water ranges from 4-12 feet on-site and 7-26 feet offsite. Depth to bedrock (shale) ranges from 8-19 feet on-site and 15-39 feet off-site. The overburden soil is predominantly sand and silty sand, with a layer of glacial till and weathered bedrock immediately above the shale. Groundwater flows in a westerly-northwesterly direction, toward Sand Creek. The Site contained a strip mall that was built in approximately 1955 and an office building that was built in 1962. The one-story strip mall of commercial properties included the Former Cleanerama dry cleaner, which operated at the Site from approximately 1960 to 1995. In 2003, the Site changed ownership and is currently owned



Health and Safety Plan 253 Osborne Road Colonie, New York 12205 Page 3 of 20

by Walgreens. In August 2010, the strip mall was demolished, and the Site has remained vacant and undeveloped as of the time of this report. Commercial properties adjacent to the Site (e.g., restaurants, jeweler, floral shop, pharmacy) are currently operating.

A remedial pilot study was conducted in 2016-2017 to compare the effectiveness of EHC®-Liquid (EHCL), a proprietary in-situ chemical reduction (ISCR) reagent, with emulsified vegetable oil (EVO) which is used to biologically enhance reductive dechlorination, for the treatment of chlorinated volatile organic compounds (CVOCs) in the site groundwater. The results of the pilot study were reported to the NYSDEC in a Pre-Design Investigation Report, dated November 2017.

Groundwater sampling activities were performed from July 10 to 13, 2018. VOC detections in the July 2018 samples were similar to those present in the previous samples collected from the site. The results for metals and geochemical parameters were also similar. Low concentrations of PFAS were detected in the groundwater samples collected from monitoring wells MW-8 and OS-1; however, these detections did not exceed the current USEPA Health Advisory Limit (HAL) for PFAS. 1,4-dioxane was detected in monitoring well MW-8 at a concentration of 0.58B micrograms per liter (ug/l). The results of the July 2018 groundwater sampling indicate that CVOC concentrations at the site have not changed significantly since the end of the pilot study in June 2017.

2.3.1 Personnel Designations

The following personnel are designated to perform the stated project activities and to ensure that the requirements of this HASP are met. The same person may fill more than one role, and/or serve as an alternate in the absence of the designated team member.

The following personnel are designated to perform the stated project activities and to ensure that the requirements of this HASP are met. The same person may fill more than one role, and/or serve as an alternate in the absence of the designated team member. All subcontractors must have received the required level of training and field experience as required under subpart (e) of OSHA 29 CFR 1910.120 and OSHA 29 CFR 1926.65 for Hazardous Waste Operations and Emergency Response (HAZWOPER).



-	
Project Team Member	Responsibilities and Tasks
Safety Officer	 HSO – HRP Associates, Inc. Ensuring all site work is being performed in accordance with HRP Associates, Inc. Safety Program, as well as in accordance with local, state and federal regulations. Directing and implementing HRP's HASP. Reviewing the Subcontractor's HASP and being aware of the hazards detailed therein. Conduct a job orientation meeting and routine safety meetings for HRP Associates, Inc. employees and subcontractors, as applicable. Provide copies of these inspections, recordkeeping/personnel logs to the engineer/contractor as required. Ensuring all project personnel have been adequately trained in the recognition and avoidance of unsafe conditions. Authorizing Stop Work Orders that shall be executed upon the determination of an imminent health and safety concern, and will notify the appropriate contacts upon issuance of this order. Authorizing work to resume, upon approval from the Contractor. Directing activities, as defined in the HRP's and the Contractor's written HASP, during emergency situations. Providing personnel monitoring where applicable. Ensuring that adequate personal protective equipment and first aid supplies are available. Ensure site security, to the extent practicable.
	- Ensure accident victims are promptly cared for, and the incident is investigated and properly reported.
Site Supervisor/ Project Manager	 Site Supervisor/Project Manager – HRP Associates, Inc. Monitor and assist the site Health and Safety officer. Maintain appropriate rules, regulations and codes at the job site. Provide advance safety planning for all activities through the use of scheduling and administrative controls. Obtain site-specific health and safety information and communicate that information with the appropriate personnel (i.e. contractors, client, etc.) Report all injuries, illnesses and other incidents to the Director of Safety. Ensure all HRP personnel are trained and qualified to perform site work.
Site Workers	Site Workers
(Subcontractors)	 Read and work in accordance with this HASP. Report all unsafe work practices to the HSO. Report all incidents, including near-misses to the HSO. Work in a safe manner.
	- Provide Designated Competent Person

A complete list of HRP employee and subcontractor responsibilities (as applicable) can be found in the HRP Generic Health and Safety Plan.

1 A list of site workers will be maintained in the Personnel Log (**Appendix B**) 2 Supervisors Investigation Report included as (**Appendix C**)



3.0 AREAS OF ENVIRONMENTAL CONCERN

3.1 Scope of Work

In general, the work to be performed by HRP and HRP's subcontractors consists of investigative methods to evaluate the environmental condition of the Site. The RD Design fieldwork for this task includes the following subtasks:

- Obtain site access to the Site with Site owners, and adjacent property owners. May require access agreements between DEC and property owner to be obtained;
- Call in Underground Utility Clearance through NYS Code Rule 753/Dig Safe System;
- Complete a Ground Penetrating Radar (GPR) survey to locate utilities and/or obstructions in the ground that may affect the locations of test trenches and/or monitoring wells;

Soil Excavation

- Soil will be field screened in the excavation area and soil will be sampled from the excavated soil and excavation
- Samples will be laboratory analyzed for VOCs

Additional information is provided in the Site Specific Work Plan prepared for this Site under separate cover.



4.0 HAZARD ANALYSIS

The project hazard analysis below identifies the hazards that are anticipated to be encountered by the project team.

	☐ Electricity	☐ Ionizing radiation			
Physical Hazards		☐ Non-Ionizing radiation			
		Lasers			
	☐ Inclement weather				
Present	⊠ Heat				
	⊠ Cold				
	☐ Vibration	☐ Falling objects			
	☐ Flying particles	☐ Other			
	□ Dust/Fumes/Particulates	☐ Oxidizer			
	☐ Flammable/Combustible	☐ Corrosive			
	☐ Compressed gas	☐ Toxic			
Health/Chemical	☐ Explosive	☐ Highly Toxic			
Hazards Present ¹	☐ Water reactive	☐ Irritant			
	☐ Unstable	☐ Sensitizer			
	□ Contact with contaminated media	☐ Carcinogen/Mutagen			
		☐ Other			
	□ Drilling	☐ Elevated heights/man lifts			
	☐ Water operations	☐ Scaffolding			
		☐ Ladders			
For the property I/Ferrings and	☐ Road work	☐ Confined spaces			
Environmental/Equipment Hazards Present	☐ Railroad work	☐ Energized equipment			
riazaras riescrie	☐ Forklifts	☐ Overhead hazards			
	☐ Power tools	□ Drums/container handling			
	☐ Welding				
	☐ Gas cylinders	☐ Biological hazards			
	○ Overhead/underground utilities	☐ Other			
	☐ Security Issues	☐ Off hour shifts			
Personal Safety	☐ Remote setting	☐ Dangerous wildlife/animals			
Considerations	☐ Employees working alone	☐ Limited cell phone service			
	☐ Limited lighting	Other			
¹ Table 1 (following the text of this HASP) provides a list of chemical substances for reference, along with					
odor threshold, permissible exposure limit (PEL), threshold limit value (TLV), OSHA ceiling, IDLH					
concentration, route of exposure and symptoms of acute exposure, if any.					

Details of specific hazards associated with individual tasks will be discussed in the Daily Job Brief Record ($\bf Appendix\ D$).



4.1 Hazard Analysis Summary/Minimization

HRP's Corporate Health & Safety Plan (in conjunction with this HASP) will be cross-referenced in order to obtain the safe work practice procedures for mitigating and preventing project site hazards identified in the table above. Job site hazard prevention and minimization information can be found in Section 3 of HRP's Generic Health & Safety Plan.

Confined Spaces

Only properly trained HRP personnel are authorized to enter confined spaces. Confined space entry may be performed by subcontractors who have the proper training and experience to conduct this work. Confined space entry is not anticipated during the RI.

Excavations

It is HRP's policy to ensure that for excavation projects the subcontracted environmental contractor will provide a competent person to perform daily and as needed inspections of excavation sites. This policy will be conveyed through the subcontract agreement with the environmental contractor. At a minimum HRP will provide our employees involved with construction projects with awareness level training regarding excavation hazards and notify the subcontracted firm if any obvious excavation safety hazard exists during the course of on-site activities.

Chemical Hazards

Hazardous chemicals known or suspected to be onsite are listed in **Table 1** (follows text). **Table 1** includes Chemical name, odor threshold OSHA PEL, ACGIH TLV, OSHA STEL, IDLH Concentrations, routes of exposure and symptoms of acute exposure. Chemicals likely to be encountered during site work are highlighted.

4.2 Changes in Conditions or Scope

Should conditions or the scope of work described herein change significantly; a HASP Addendum will be completed.

4.3 Monitoring Procedures

Air monitoring will be used to determine the concentrations of various chemicals while working in the exclusion zone to evaluate worker exposure to contaminated media. In order to determine potential health hazards and to determine the level of personal protection needed during sampling activities within the areas of concern, a Photoionization Detector (PID) will be periodically operated to monitor air quality for the purpose of ensuring minimal exposure to volatile organic compounds. Monitoring of atmospheres adjacent to on-going excavations and around the treatment area shall also be conducted with a PID.



The following environmental monitoring instruments/procedures shall be used on-site at the specified intervals:

Instrument/Procedure

Sampling Interval

Photoionization Detector (PID) in the breathing zone

Periodically as deemed by HSO

Background ambient air levels will be established outside the exclusion zone prior to commencement of site work. Ambient air sampling will occur in the breathing zone of site workers for comparison to the action levels (described below). Additionally, air sampling will be conducted in the vicinity of any intrusive exploration (i.e. near excavations, trenches, etc.) to determine if any contaminants are present.

The following Action Levels will be used:

Instrument	Action Level	Level of Protection or Action Required		
PID	No reading above background	 No action required. Continue PID monitoring. (Modified) Level D protection. 		
PID	Up to 5 ppm above background	 Evacuate exclusion zone. Recheck levels after 15 minutes. If levels are sustained, reassess. Use engineering controls to lower breathing zone vapors. Level C protection (at the HSO direction). 		
PID	>5 ppm above background	 Evacuate exclusion zone. Recheck levels after 15 minutes. Use engineering controls to lower breathing zone vapors. If levels are sustained, contact Safety Manager, and re-evaluate HASP. 		

When an action level is equaled or exceeded, the work area should be evacuated and the area re-tested with the sampling device. If the appropriate action level continues to be exceeded, the HSO will have to assess the use of engineering controls to lower vapor levels or availability of required increased personal protection equipment before authorizing re-entry.

Calibration of all instruments will occur at least once per day, when in use. An equipment calibration log is included in **Appendix E.**

Community Air Monitoring

To ensure the protection of receptors surrounding the site HRP has developed and will implement a Community Air Monitoring Program (CAMP), which requires real time monitoring of volatile organics and dust during the remedial investigation. The CAMP, included as **Appendix F** will be implemented during all intrusive activities.



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Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will 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 will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities.

If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than the background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques 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/m3 above the upwind level, work will 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/m3 of the upwind level and in preventing visible dust migration.



5.0 ENGINEERING CONTROL MEASURES/GENERAL SAFETY

5.1 Air Monitoring

In order to determine potential health hazards and to determine the level of personal protection needed during drilling, excavation and sampling activities within the areas of concern, a PID will be periodically operated to monitor air quality for the purpose of ensuring minimal exposure to volatile organic compounds. Please refer to **Section 4.3** of this plan for specific air monitoring procedures/action levels.

5.2 Protective Zones

Prior to commencement of work in area of suspected contamination, protective zones specific for each phase of the Plan will be established by the HSO if necessary prior to the start of field work. The purpose of the protective zones is to prevent potential cross-contamination of adjacent areas as well as to protect project personnel from exposure to contaminated areas.

Protective zones shall be delineated as follows:

- Exclusion Zone: This is the contaminated area in which intrusive activities are performed. The "Area of Environmental Concern" (AOEC) is located within this area. A single access point for entrance and exit should be established and maintained, if possible. This zone should be delineated from the Contaminant Reduction Zone via perimeter cones or caution tape, or other applicable method. Work areas are shown on **Figure 2**. The Exclusion Zone delineation and any necessary modifications will be based on site conditions.
- <u>Contaminant Reduction Zone</u>: This zone is a transition zone located between the Exclusion Zone and the Support Zone and is utilized to decontaminate personnel and equipment.
- <u>Support Zone</u>: This zone will be utilized by equipment and vehicle storage and will be kept free of contaminated material. The HSO will determine the location of this zone. In the event of a site evacuation, the rally point will be <u>the gravel driveway by the southeastern corner lot</u> (**Figure 2**). The designated rally point may be relocated by the HSO based on project or site conditions. All site workers will be notified of any relocation prior to implementation.



6.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

6.1 Level of Protection

As identified in **Section 4.0**, the overall health and safety risk associated with chemical hazards for HRP and associated contractors is considered significant. This is primarily due to the moderate concentrations of chemical contaminants expected based on minimal contact personnel will have with any potentially contaminated media. Therefore, the minimal level of protection for HRP personnel during the conduct of all the environmental work performed at the site will be Level D PPE, and will generally consist of the PPE listed below:

- Steel toe/shank work boots
- Hard hat, as necessary
- Safety vest, as necessary
- Coveralls/tyvek, as necessary
- Safety glasses/goggles/face shield, as necessary
- Hearing protection, as necessary

If site conditions warrant, an upgrade to Level C PPE may be required (refer to **Section 4.3** for the appropriate *Action Levels*) then the contractors will make Level C personal protective equipment (PPE) readily available. Level C PPE generally includes:

- Full face, air purifying respirator with organic vapor cartridges
- Same as Level D, but also includes tyvek taped pant/boot and glove/shirt

If it is determined protection beyond Level C is required, HRP will re-evaluate the HASP as well as the site conditions, and will revise the HASP as required. The following table provides a summary of the minimum level of PPE required on site:

Description	Level of Protection ¹	
Description	D	С
Body		
Work Clothes	R	R
Chemical Protective Suit (Tyvek)	0	R
Visibility Vest	O ²	O ²
Apron	0	0
Fall Protection	O ²	O ²
Head		
Hard Hat	R	R
Head Warmer	0	0
Eyes & Face		
Safety Glasses	R	R
Goggles (based on hazard)	0	R
Face Shield	0	0
Ears		
Plugs or Muffs	R ²	R ²
Hands & Arms		
Work Gloves	R	O ²



Description	Level of Protection ¹	
Description	D	С
Chemical Resistant Gloves (Nitrile)	0	R
Insulated Gloves	0	0
Foot		
Work Boots/Steel Toe Boots	R	R
Chemical Resistant Boots	0	0
Disposable Boot Covers	0	0
Respiratory Protection ³		
1/2 Mask Air Purifying Respirator (APR) or Full	NA	R
face APR		
Dust Protection	0	NA
Powered APR	NA	NA
SCBA/Supplied Air Respirator	NA	NA

R = Required, **O** = Optional, **NA** = Not Applicable

The following table provides a general description of potential field activity tasks to be performed and associated (recommended) PPE. The use of this PPE may or may not vary depending on site conditions and will be addressed at the time of task assignment by the HSO.

Task Description	Invasive (Y/N)	Protection Level
Site Mobilization - Surveying, fence and barrier installation, hay bale installation, decon and work zone set up, soil staging areas preparation	N	Level D
Soil and Water Sampling - Drilling, sampling, soil moving as needed.	Y	Modified Level D or Level C – Respirator as needed based on monitoring. Eye protection required during collection of any liquid sample
Soil Excavation, Staging and Load-Out	Y	Modified Level D – or Upgrade to Level C dependent on monitoring
<u>Decontamination</u> - Truck dry sweeping, decon pressure wash of equipment, PPE change out	Y	Modified Level D – or Upgrade to Level C dependent on monitoring
<u>Waste Management</u> - Soil load-out for off-site disposal, water removal for disposal, PPE disposal	Y	Modified Level D – or Upgrade to Level C dependent on monitoring
Site Control (Exclusion, Decontamination, Support Zones)	N	Modified Level D – or Upgrade to Level C dependent on monitoring
<u>Communications</u> - Use of hand signals, backup alarms, and voice	N	NA
Site Restoration	Y	Level D



¹The level of protection identified here does not include the necessary equipment for entering confined spaces. Refer to Moran Environmental Recovery's Safety Manual Confined Space Program for atmospheric sampling protocols and breathing and rescue equipment necessary for those operations.

² The use of this PPE may or may not be required depending on site conditions/location and will be addressed at the time of task assignment by the HSO.

³ Respiratory protection necessary to protect against VOC, dusts/particulates and not oxygen deficient atmospheres.

7.0 DECONTAMINATION

7.1 Decontamination Procedures

All personnel and equipment leaving the exclusion zone must be properly cleaned and decontaminated. When there is evidence of chemical contamination during the site operations, all personnel will be decontaminated under the direction of the HSO. Clean-up and/or decontamination of personnel shall consist of washing off excessively soiled PPE with a disinfectant detergent scrub and water. At the very least, all personnel should wash their hands and face before leaving the exclusion zone. After washing, all disposable clothing (tyvek, gloves, etc.) will be removed and placed in a double lined plastic bag.

Sampling tools and any other non-disposable items will be decontaminated between sampling points, and at the direction of HRP personnel, to prevent cross-contamination of work areas or environmental samples, as applicable.

7.2 Emergency Decontamination

If immediate medical attention is required in an emergency, decontamination will be performed after the victim has been stabilized. If a worker has been exposed to an extremely toxic or corrosive material, then emergency decontamination will consist of flushing with copious amounts of water. If the victim cannot be decontaminated because it will interfere with emergency medical aid being administered, then the victim should be wrapped with plastic or other available items (i.e. an uncontaminated coverall) to reduce potential contamination of other personnel or medical equipment.

If a site worker has been overcome by heat related illness, then any protective clothing should be removed immediately. In the case of non-medical emergency evacuation, decontamination should be performed as quickly as possible, unless instant evacuation is necessary to save life or prevent injury.

7.3 Personal Hygiene

All employees will be required to wash hands and face prior to eating, smoking, drinking and going to the bathroom. Workers will be required to remove contaminated PPE and clothing prior to leaving the Contaminant Reduction Zone. All field personnel should avoid contact with potentially contaminated substances such as puddles, pools, mud, etc.

Additional personal hygiene requirements, intended to prevent the spread of the novel corona virus to site workers will be in effect during site activities. These procedures include mobile handwashing stations and the requirement for site workers to wear face coverings. Additional details are included in **Appendix G**.



8.0 EMERGENCY ACTION PLAN/SPILL RESPONSE

In the event of a worker injury, fire, explosion, spill, flood, or other emergency that threatens the safety and health of site workers, the following procedure will be followed:

- 1. If the emergency originates within the work area covered by this Plan, the HRP HSO shall act as the Emergency Coordinator. The emergency evacuation signal <u>is an air horn or a loud yell</u>. All emergency situations (including worker injuries, no matter how small) will be reported to the HSO, who will determine the appropriate emergency response, up to and including evacuation. Only the HSO may initiate evacuation of the work area. The HSO will be responsible for reporting any emergency situation to the appropriate authorities, using a telephone or other appropriate method.
- 2. In the case of an evacuation, site workers will exit the site along the safest route(s) and assemble with team members at a safe rally point. Those workers in the Exclusion Zone will follow the emergency decontamination procedures outlined in **Section 7.2**. Accounting of all site personnel will be conducted by the HSO using the personnel log at a location determined by the HSO.
- 3. HRP personnel are not permitted to participate in handling the emergency. Fire and medical emergencies will be handled by the local fire department and ambulance service. In the case of a spill of hazardous materials the NYSDEC will be contacted.
 - In addition, the HSO/Project Manager must advise the site contact that the New York Spill Hotline should be contacted and, if the spill quantity is greater than the Reportable Quantity (RQ) under CERCLA and/or SARA, the National Response Center (NRC) and Local Emergency Planning Committee should also be contacted. If the spill begins to flow overland and threatens to contaminate a storm drain or surface water, HRP personnel may attempt to contain and isolate the spill using any available resources, but only if, in the judgment of the HSO, such action will not expose the workers to dangerous levels of hazardous substances and is necessary to preserve life or property. In the event that a spill of material of any amount threatens to reach navigable waters, the NRC shall be contacted.
- 4. Once initial emergency procedures to protect worker safety and health have been addressed, and control of emergency has been completed, the HSO will complete an Investigation Report and submit this form to the appropriate personnel (HRP and/or client contact).
- 5. All site workers will be familiarized with the above procedures during the pre-entry briefing to be conducted before site work begins.



9.0 TRAINING/MEDICAL SURVEILLANCE

9.1 Training Requirements

All HRP and HRP subcontractor personnel who enter the work zone and/or Exclusion Zone must have successfully completed the 40-hour or 24-hour training requirement outlined in 29 CFR 1910(e). If the 40-hour or 24-hour training of any person occurred more than 12 months prior to commencement of work, then that person must have attended an 8-hour refresher course within the 12 months prior to commencement of work. If respirators are in use in the Exclusion Zone, then all personnel must have undergone respirator training and a fit test within the last 12 months. Training certificates and records for HRP employee(s) are on file at HRP. All other contractors will be required to supply written proof of training before being allowed into the Exclusion Zone.

9.2 Pre-Entry Briefing

Prior to commencement of work in an area of suspected contamination, HRP's Health and Safety Officer will conduct a pre-entry briefing with on-site contractors, which will include the following:

- Name of the HSO and person responsible for the visitor log.
- Description of the parcel as well as location of emergency telephones and the location/boundaries of the Exclusion Zone, Contamination Reduction Zone, and Support Zone, if established.
- Review of hospital locations and directions.
- Review of tasks to be conducted within the parcel by the site workers.
- Review of the Emergency Action Plan and rally point, including the nearest emergency communications and telephone numbers.
- The nature, level, and degree of anticipated hazards (physical and chemical) involved in the site work.
- Required personal protective equipment.
- Decontamination procedures.

The HSO should also, at this time, ensure that all on-site HRP and HRP subcontractor personnel have read the HASP and signed the last page of the original (**Section 11.0**). If additional information on the site becomes available, the HSO will call additional briefings as necessary.

9.3 Morning Safety (Tailgate) Meeting

The HRP HSO will conduct a safety overview meeting at the beginning of each workday on the site. The meeting will be given in addition to any tailgate meetings that the subcontractor conducts. A summary of the meeting topics signed by the personnel attending the meeting is included in **Appendix D**.



9.4 Medical Surveillance

All HRP and HRP subcontractor personnel entering the Exclusion Zone must have had a physical within the 12 months prior to commencement of site work. A physician's written opinion regarding fitness for work for each employee including work limitations, if any, is on file at HRP, as applicable. A written opinion for all other site personnel must be supplied prior to commencement of site work to the HRP HSO. Any work limitations for site personnel, or relevant medical information (i.e. allergic reactions to medication) should be included in this Plan.



10.0 **AUTHORIZATIONS**

Personnel authorized to enter the Exclusion Zone include the personnel listed in Section 2.4. Persons not listed in Section 2.4 may enter the Exclusion Zone only if the appropriate training and medical fitness certifications have been supplied to either the HRP Project Manager or Health and Safety Manager and the HSO or his/her designee on site has approved site entry. All personnel entering or leaving the Exclusion Zone must sign in and sign out with the recordkeeper.



11.0 FIELD TEAM REVIEW

All HRP personnel shall sign below after reading this HASP and shall agree with the following statement:

"I have read and understand this site specific Health and Safety Plan. I will comply with the provisions set forth therein."

Printed Name	Signature	Date



12	.0	AP	PR	O	VΑ	LS
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This plan meets the minimum requirements of 29 CFR 1910.120 and 29 CFR 1929.65 and has been written for specified site conditions, dates, and personnel, and must be amended if conditions change. By their signature, the undersigned certify that this HASP is approved and will be utilized during activities at the project.

Mark Wright On-Site Health and Safety Officer	<u>July 13, 2022</u> Date				
Mark Wright, PG, CHIMM, CSP Project Manager	<u>July 13, 2022</u> Date				
Subcontractor: I have been provided a copy of this HASP for review.					
[name] Representing	Date				
The Designated Competent person representing [subcontractor]	at the site will be				

Any alternate Competent Person will be noted in the Daily Job Brief Record (**Appendix D**).



ADDITIONAL APPROVALS (or Re-Approvals)				
Name:	Date:			



FIGURES

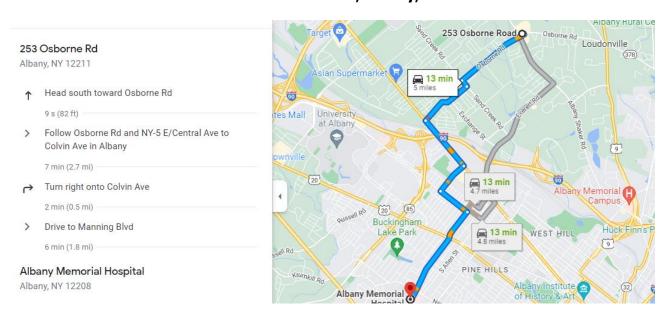


Figure 3: Route and Map to Nearest Hospital and Medical Center

Directions to Albany Memorial Hospital

Total Estimated Time: 13 minutes Total Estimated Distance: 5.0 miles

End at Albany Memorial Hospital 600 Northern Blvd, Albany, NY





TABLES



				TABLE 1			
		CHEMI	CAL HAZARDS I	KNOWN OR SU	SPECTED ON-S	ITE	
CONTAMINANT	ODOR THRESHOLD	OSHA PEL ¹	TLV (ACGIH)	OSHA CEILING ² /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE ³
1,1,1 Trichloroethane	44 ppm	350 ppm	350 ppm		700 ppm	Inh, Ing, Con	Head, Lass, CNS, Derm
1,1,2-Trichloroethane		10 ppm	10 ppm		[100 ppm]	Inh, Ing, Abs, Con	Eyes, Nose Irrit, Resp Irrit, CNS, Liver, Kidney Damage, Derm, [Carc]
1,2,4 Trimethylbenzene 1,3,5 Trimethylbenzene		25 mg/m ³	25 ppm	25 mg/m ³	ND	Inh, Ing, Con	Irrit Eyes, Skin, Nose, Throat, Resp Sys, Bron, Hyprochronic Anemia, Head, Drow, Ftg, Dizz, Nau, Inco, Vomit, Conf, Chemical Pneu (aspir lig)
1,1' Biphenyl	0.0062 mg/m ³	0.2 ppm	0.2 ppm		100 mg/m ³	Inh	
1,1-Dichloroethane	120 ppm	100 ppm	100 ppm		3,000 ppm	Inh, Ing, Con	CNS Depres, Skin Irrit, Liver, Lung and Kidney Damage
1,1-Dichloroethylene***	500 ppm		5 ppm			Inh, Con	CNS depress, Resp, [Carc]
1,2-Dichlorobenzene	50 ppm	50 ppm	25 ppm		200 ppm	Inh, Ing, Abs, Con	Irrit, Resp
1,2-Dichloroethylene	26-87 ppm	200 ppm	200 ppm		1,000 ppm	Inh, Ing, Con	Vomit, Irrit Eyes, Resp Sys; CNS Depres
1,2-Dichloropropane	130-190 ppm	75 ppm	75 ppm		[400 ppm]	Inh, Con, Ing	Eye irritation, Drow, light- headedness; irritated skin, [Carc]
1,3-Dichlorobenzene							
1,4-Dichlorobenzene	20 ppm	75 ppm	10 ppm		[150 ppm]	Inh, Ing	[Carc], Eye Irrit, swelling around eye, headache, nausea, vomiting
1-Methylnaphthalene	0.02 ppm						
2,4-Dichlorophenol	1.4007 mg/m ³						
2,4-Dimethylphenol	0.001 mg/m ³						
2-Methylnaphthalene	0.01 ppm						
2-Methylphenol (o-cresol) [skin]	1.4 mg/L	5 ppm	5 ppm		250 ppm	Inh, Abs, Ing, Con	Confusion, depression, Resp Fail; difficulty breathing, irregular rapid respiration, weak pulse; skin, eye burns; dermatitis



				TABLE 1			
		CHEMI	CAL HAZARDS H	(NOWN OR SU	SPECTED ON-S	ITE	
CONTAMINANT	ODOR THRESHOLD	OSHA PEL ¹	TLV (ACGIH)	OSHA CEILING ² /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE ³
3, 3'-Dichlorobenzidine		None				Inh, Abs, Ing, Con	Sens, Derm, Head, Dizz, Burns, GI Upset, [Carc]
4-Isopropyltoluene						Con, Inh, Ing	Defat, Eryt
Acenephthene	0.5048 mg/m ³						
Acenaphthylene							
Acetone	47.5 mg/m ³	1,000 ppm	500 ppm		2,500 ppm	Ing, Inh, Con	Head, Dizz; Irrit Eyes, Nose, Throat; Derm, CNS, Depress, Derm
Acetonitrile	70 mg/m ³	40 ppm	20 ppm		500 ppm	Inh, Ing, Abs, Con	Asphy; Nau, Vomit; Chest Pain; Weak, Stupor, Convuls; Eye Irrit
Aldrin		0.25 mg/m ³	0.25 mg/m ³		25 mg/m ³	Inh, Abs, Ing, Con	Head, Dizz, Nau, Vomit, Mal, Myo, [Carc]
Anthracene (Coal Tar Pitch)		0.2 mg/m ³			[80 mg/m ³]	Inh, Con	Derm, bron, [carc]
Antifreeze		50 ppm	100 mg/m³ (aerosol)		ND	Inh, Ing, Con	Irrit Eyes, Skin, Nose, Throat, Nau, Vomit, Abdom Pain, Lass, Dizz, Stup, Conv, CNS, Depres, Skin Sen
Arsenic		0.010 mg/m ³	0.01 mg/m ³		[5 mg/m ³]	Abs, Inh, Con, Ing	Derm; GI; Resp Irrit; ulceration of nasal septum; Resp, Irrit, Hyper Pig of Skin, [Carc]
Barium (elemental)		0.5 mg/m ³	0.5 mg/m ³		50 mg/m ³ (barium components)	Inh, Ing, Con	Resp. Irrit, GI, Muscle Spasm, Eye Irrit, Slow Pulse; skin burns
Benzene*	4.7 ppm	1 ppm	0.5 ppm	5 ppm	[500 ppm]	Inh, Ing, Abs, Con	Irrit Eyes, Nose, Throat; Head, Nau, Derm, Ftg, Anor, Lass, [Carc]
Benzo(a)anthracene (coal tar pitch)		0.2 mg/m ³			[80 mg/m ³]	Inh, Con	[Carc], Derm, Bron
Benzo(a)pyrene (coal tar pitch)		0.2 mg/m ³			[80 mg/m ³]	Inh, Con	[Carc], Derm, Bron
Benzo(b)fluoranthene (coal tar pitch)		0.2 mg/m ³			[80 mg/m ³]	Inh, Con	[Carc], Derm, Bron
Benzo(g,h,i)perylene (coal tar pitch)		0.2 mg/m ³			[80 mg/m ³]	Inh, Con	[Carc], Derm, Bron



				TABLE 1			
		CHEMI	CAL HAZARDS I	(NOWN OR SU	SPECTED ON-S	ITE	
CONTAMINANT	ODOR THRESHOLD	OSHA PEL ¹	TLV (ACGIH)	OSHA CEILING ² /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE ³
Benzo(k)fluoranthene (coal tar pitch)		0.2 mg/m ³			[80 mg/m ³]	Inh, Con	[Carc], Derm, Bron
Bis (2-ethylhexyl) Phthalate**	N/A	5 mg/m ³	5 mg/m ³	10 mg/m ³	[5,000 mg/m³]	Inh, Ing, Con	[Carc], Irrit Eyes
Cadmium (dust)		0.005 mg/m ³	Lowest concentratio n feasible 0.01 mg/m ³		[9 mg/m ³]	Inh, Ing	CNS, Resp, Irrit, Vomit, Cough, Head, Chills, Nau, Diarr, Pulm Edema, Dysp, Chest Tight, [Carc]
Carbazole						Inh	
Carbon disulfide	0.1-0.2 ppm	20 ppm	1 ppm	30 ppm	500 ppm	Inh, Abs, Ing, Con	Diz, Head,Ftg, Ner, anorexia, trembling hands, loss of fine motor coord, gastritis, eye, skin burns, Derm
Carbon Tetrachloride***	21.4 ppm	10 ppm	5 ppm	25 ppm	[200 ppm]	Inh, Abs, Con, Ing	CNS Depres, Nau, Vomit, Irrit, Irrit Eyes, Skin, Drow, Dizz, [Carc]
Chlorobenzene***	0.98 mg/m ³	75 ppm	10 ppm		1,000 ppm	Inh, Ing, Con	Irrit, Drow, CNS, Depres, Eyes, Skin, Nose, Inco.
Chloroform***	85 ppm	50 ppm	10 ppm	50 ppm	[500 ppm]	Inh, Ing. Con, Abs	Dizz, Dullness, Nau, Head, Ftg, Irrit Eyes, Skin, Conf, [Carc]
Chromium		1 mg/m³	0.5 mg/m ³		250 mg/m ³	Inh, Ing, Con	Irrit Eyes, Sens Derm
Chrysene (coal tar pitch)		0.2 mg/m ³			[80 mg/m ³]	Inh, Con	Derm, Bron, [Carc]
Cis-1-2-Dichloroethylene		200 ppm	200 ppm		1000 ppm	Inh, Con, Ing	Irrit Eyes, Resp, CNS Depress
Copper (dusts and mists) (fumes)		1 mg/m³ 0.1 mg/m³	1 mg/m ³ 0.2 mg/m ³		100 mg/m ³	Inh, Ing, Con	Vomit, Derm, CNS, Irrit, Derm, Nau, Taste (metallic)
Cyanide	0.9 mg/m ³	5 mg/m ³	5 mg/m ³ (10 min)	5 mg/m ³	25 mg/m ³	Inh, Ing, Abs, Con	Weak, Head, Nau, Conf, Cyan
Dibenzo(a,h)anthracene						Inh, Ing	
Dichloromethane	540 mg/m ³	25 ppm	50 ppm	125 ppm	[2,300 ppm]	Inh, Abs, Ing, Con	Irrit Eyes, Skin, lass, drow, dizz, Numb, tingl, Nau, [Carc]



				TABLE 1			
		СНЕМІ	CAL HAZARDS I	KNOWN OR SU	SPECTED ON-S	ITE	
CONTAMINANT	ODOR THRESHOLD	OSHA PEL ¹	TLV (ACGIH)	OSHA CEILING ² /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE ³
Diethylphthalate**	1	None	5 mg/m ³		N.D.	Inh, Ing, Con	Irrit Eyes, Skin, Nose, Throat, Head, Dizz, Nau, Lac, Possible Polyneur, Vestibular Dysfunc, Pain, Numb, lass, Spasms in Arms and Legs
Di-n-octylphthalate						Inh, Ing, Con	
Dimethylpthalate		5 mg/m ³	5 mg/m ³		2,000 mg/m ³	Inh, Ing, Con	Irrit, Resp, Abdom
Ethyl Benzene*	8.7 mg/m ³	100 ppm	100 ppm	125 ppm	700 ppm	Inh, Abs, Con	Head. Irrit, Derm, Narc., Irrit Eyes, Skin; Coma
Fluoranthene		0.2 mg/m ³	0.2 mg/m ³			Ing, Inh	[Carc]
Fluorine*	6 mg/m ³	0.1 ppm	1 ppm	2 ppm	25 ppm	Inh, Con	
Fuel Oil/#2			300 ppm			Inh, Abs, Ins, Con	Irrit Eyes, Skin, Derm, Head, Ftg, Blurred Vision, Dizz, Conf
Ideno(1,2,3-cd)pyrene		0.2 mg/m ³				Ing, Inh	
Lead (inorganic forms and dust as Pb)****		0.05 mg/m ³	0.05 mg/m ³		100 mg/m ³	Inh, Ing, Con	Irrit, Cns, Vomit, Narco, Weak, Pall, Insom, Lass, Abdom, Constip
Mercury (organic alkyl compounds) [skin]		0.01 mg/m ³	0.01 mg/m ³	0.03 mg/m ³	2 mg/m ³	Inh, Abs, Ing, Con	Irrit Eyes, Skin; Cough & Chest Pain, Bron Pneu, Tremor, Insom, Irrty, Indecision, Head, Ftg, Weak, Stomatitis, Salv, GI Dist, Anor, Low- wgt, Ataxia
Mercury (compounds)		0.1 mg/m ³	0.025 mg/m ³	0.1 mg/m ³	10 mg/m ³	Inh, Abs, Ing, Con	Irrit Eyes, Skin; Cough & Chest Pain, Bron Pneu, Tremor, Insom, Irrty, Indecision, Head, Ftg, Weak, Stomatitis, Salv, GI Dist, Anor, Low- wgt, Ataxia
Methanol	13.1150 mg/m ³	200 ppm	200 ppm		6,000 ppm	Inh, Abs, Ing, Con	Irrit Eyes, Skin, Resp, Head, drow, dizz, Nau, Vomit, vis dist, Optic, derm
Methyl Ether						Inh	Poison



				TABLE 1			
		СНЕМІ	CAL HAZARDS	KNOWN OR SU	SPECTED ON-S	ITE	
CONTAMINANT	ODOR THRESHOLD	OSHA PEL ¹	TLV (ACGIH)	OSHA CEILING ² /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE ³
Methyl Ethyl Ketone (2-Butanone)***	0.7375 mg/m ³	200 ppm	200 ppm	300 ppm	3,000 ppm	Inh, Con, Ing	Irrit Eyes, Skin, Nose, Throat, Head, Dizz, Vomit, Derm
Methylene Chloride	540 mg/m ³	25 ppm	50 ppm	125 ppm	[2,300 ppm]	Inh, Ing, Con, Abs	Ftg, Weak, dizz, drow, Numb, Tingle [carc], Irrit Eyes, Skin, Nau
Mineral Spirit	20 ppm	500 ppm	100 ppm		20,000 mg/m ³	Inh, Ing, Con	Irrit Eyes, Nose, Throat, Dizz, Derm, Chemical pneu
Methyl tert butyl ether (MTBE)			50 ppm			Inh, Abs	
Naphtha	0.86 ppm	100 ppm	400 ppm		1,000 ppm	Inh, Con, Ing	Light Head, Drow, Irrit, Derm, Irrit Eyes, Skin, Nose
Naphthalene*	0.084 ppm	10 ppm	10 ppm	15 ppm	250 ppm	Inh, Abs, Ing, Con	Eye irritation; headache; confusion, excitement, malaise (vague feeling of ill-being); nausea, vomiting, abdominal pain; irritated bladder; profuse sweating; renal shutdown; dermatitis
Nickel (metal)		1 mg/m³	1.5 mg/m ³		[10 mg/m ³]	Inh, Ing, Con	Head, Verti, Nau, Vomit, Pain, Cough, Weak, Convuls, Delirium, Pneu, ,[Carc]
Nitrobenzene	0.0235 mg/m ³	1 ppm	1 ppm		200 ppm	Inh, Abs, Ing, Con	Irrit Eyes, Skin, Anoxia, Derm, Anem, Methem
n-Butylbenzene							
n-Propylbenzene							
PCBs 42% chlorine (Aroclor 1242)		1 mg/m³ (skin)	1 mg/m³ (skin)		[5 mg/m ³]	Inh, Abs, Ing, Con	Irrit Eyes, Chloracne, Liver Damage [carc]
PCBs 54% chlorine (Aroclor 1254)		0.5 mg/m ³ (skin)	0.5 mg/m ³ (skin)		[5 mg/m ³]	Inh, Abs, Ing, Con	Irrit Eyes; Chloracne, Liver Damage [carc]
Petroleum Distillates		500 ppm	100 ppm		[1,100 ppm]	Inh, Ing, Con	Dizz, Drow, Head, Dry Skin, Nau, Irrit Eyes, Nose, Throat, [Carc]



				TABLE 1			
		СНЕМІ	CAL HAZARDS I	KNOWN OR SU	SPECTED ON-S	TE	
CONTAMINANT	ODOR THRESHOLD	OSHA PEL ¹	TLV (ACGIH)	OSHA CEILING ² /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE ³
Phenanthrene (Coal Tar Pitch)		0.2 mg/m ³	0.2 mg/m ³		[80 mg/m ³]	Inh, Con	Derm, bron, (carc)
Phenol**	0.1786 mg/m ³	5 ppm	5 ppm		250 ppm	Inh, Abs, Ing, Con	Irrit Eyes, Nose, Throat, Anor, Low Wgt, Weak Musc Ache, Pain, Dark Urine, Cyan, Liver, Kidney Damage, Skin, Burns, Derm, Ochronosis, Tremor, Convuls, Twitch
Pyrene		0.2 mg/m ³			[80 mg/m ³]	Inh, Con	[Carc]
Sec-Butylbenzene							
Selenium	N/A	0.2 mg/m ³	0.2 mg/m ³	Unknown	1 mg/m ³	Inh, Ing, Con	Irrit, Head, Fever, Chills, Skin/Eye Burns, Metallic Taste, GI, Dysp, Bron
Silver (metal and soluble compounds as Ag)		0.01 mg/m ³	Metal = 0.1 mg/m ³ Soluble 0.01 mg/m ³		10 mg/m ³	Inh, Ing, Con	Blue-gray Eyes, Nasal Septum, Throat, Skin; Irrit, Ulcer, Skin, GI Dist
Tetrachloroethylene (a.k.a. perchloroethylene)***	4.68 ppm	100 ppm	25 ppm	200 ppm	[150 ppm]	Inh, Ing, Con, Abs	Irrit Eyes, Skin, Nose, throat, Resp. Nau, flush face, Neck, dizz, inco, head, drow, eryth, [Carc]
Toluene*	2.14 ppm	200 ppm	50 ppm	300 ppm	500 ppm	Inh, Abs, Ins, Con	Resp, Irrit, Ftg, Conf, Dizz, Head, Derm, Euph, Head, Dilated Pupils, Lac, Ner, Musc FTg, Insom, Pares, Derm, lass
Petroleum Distillates (naphtha)	10 ppm	100 ppm	400 ppm		1,000 ppm	Con, Inh, Ing	
Trans 1,2-Dichloroethylene	0.3357 mg/m ³	200 ppm	200 ppm		1,000 ppm	Inh, Con	Irrit, Resp, CNS depress
Trichloroethylene***	21.4 ppm	100 ppm	50 ppm	200 ppm	[1,000 ppm]	Inh, Con, Abs, Ing	Head, Vert, Nau, Vomit, Derm, Vis Dist, Tremors, Som, Nau, Irrit Eyes, Skin, Card Acc., Ftg, [Carc]
Trichlorofluoromethane	28 mg/m ³	1,000 ppm	1,000 ppm		2,000 ppm	Inh, Con, Ing	Inco, trem, derm, card, asph, frost
Trichlorotrifluoroethane	45 ppm	1,000 ppm	1,000 ppm	1,250 ppm	2,000 ppm	Inh, Con, Ing	Irrit Skin, throat, Drow, Derm, CSN, Depress



				TABLE 1			
		СНЕМІ	CAL HAZARDS I	KNOWN OR SU	SPECTED ON-S	ITE	
CONTAMINANT	ODOR THRESHOLD	OSHA PEL ¹	TLV (ACGIH)	OSHA CEILING ² /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE ³
Vinyl Chloride***	10-20 ppm	1 ppm	1 ppm	5 ppm	ND	Inh, Con	Lass, Abdom, Gi Bleeding; Hepatomegaly; Pallor or Cyan of Extremities; Liq: Frostbite; [Carc]
VM&P Naphtha (petroleum naphtha)			300 ppm		ND	Con, Ing, Inh	Irrit Eyes, Nose, Throat, Dizz, drow, head, nau, dry skin, chem. Pneumonitis
Xylene*	4.5 mg/m ³	100 ppm	100 ppm	150 ppm	900 ppm	Inh, Ing, Abs, Con	Dizz, Drow, Irrit, Excite, Nau, Vomit, Eyes, Skin, Nose, Throat
Zinc (oxide)		5 mg/m ³	2 mg/m ³		500 mg/m ³	Inh	Dry Throat, Cough, Chills, Tight Chest, Blurred Vision
4,4' DDD						Ing, Inh, Con	
4,4' DDE						Ing, Inh, Con	
4,4' DDT	5.0725 mg/m ³	1 mg/m³	1 mg/m³	-	[500 mg/m ³]	Inh, Abs, Ing, Con	Irrit Eyes, Skin, Pares, Tongue, Lips, Face, Trem, Anxi, Dizz, Conf, Mal, Head, Lass, Conv, Paresi Hands, Vomit, [Carc]
Aldrin		0.25 mg/m ³	0.25 mg/m ³		[25 mg/m ³]	Inh, Abs, Ing, Con	Head, Dizz, Nau, Vomit, Mal, Myo [Carc]
Chlordane [skin]	0.0084 mg/m ³	0.5 mg/m ³	0.5 mg/m ³		[100 mg/m ³]	Inh, Abs, Ing, Con	Blurred vision, confusion, delirium, cough; abdominal pian, nausea, vomiting diarrhea; irritability, tremor, convulsions [Carc]
EDB	76.8 mg/m ³	20 ppm		30 ppm	[100 ppm]	Inh, Abs	Resp. Irr, Eye Irr. [Carc]
Endosulfan I Endosulfan II		0.1 mg/m ³	0.1 mg/m ³		N.D.	Inh, Abs, Ing, Con	Irrit, Skin, Nau, Conf, Agit, Flush, Dry, Trem, Conv, Head
Endosulfan Sulfate			0.1 mg/m ³			Ing, Con	
Endrin	1.8 x 10 ⁻² ppm	0.1 mg/m ³	0.1 mg/m ⁻³		2 mg/m ³	Inh, Abs, Ing, Con	Epil Conv, Stup, Head, Dizz, Abdom, Nau, Vomit, Insom, Agress, Conf, Drow, Lass, Anor
Endrin Aldehyde	1.8 x 10 ⁻² ppm					Inh, Con	
Endrin Ketone							



		СНЕМІ	CAL HAZARDS I	TABLE 1 KNOWN OR SU	SPECTED ON-SI	ITE	
CONTAMINANT	ODOR THRESHOLD	OSHA PEL ¹	TLV (ACGIH)	OSHA CEILING ² /STEL	IDLH CONC.	ROUTES OF EXPOSURE	SYMPTOMS OF ACUTE EXPOSURE ³
Heptachlor	0.02 ppm	0.5 mg/m ³	0.05 mg/m ³		[35 mg/m ³]	Inh, Abs, Ing, Con	In animals, Trem, Conv, [Carc]
Heptachlor epoxide	0.02 ppm		0.05 mg/m ³			Ing, Inh	Trem, Conv, [Carc]
Hydrogen Cyanide(Hydrocyanic Acid)	0.9 mg/m ³	10 ppm (11 mg/m³)	4.7 ppm	4.7 ppm	50 ppm	Con, Inh, Ing, Abs	Asphy & death at high levels; Weak, Head, Conf, Nau, Vomit, Incr. Rate and Depth of Respiration or Respiration Slow and Gasping

NOTES

- * = Constituent found in ETPH
- **=Constituent found in Acid/Base/Neutral Extractable Compounds
- ***=Constituent found in Volatile Organic Compounds
- ****=Constituent found in Leaching Lead
- ¹PEL = Permissible Exposure Limit. If no PEL is available, then the NIOSH Threshold Limit Value (TLV) should be used, if available.
- ²Ceiling limit or Short Term Exposure Limit (STEL), if available. Again, the NIOSH TLV may be used if no OSHA standard exists.
- ³Abbreviations are contained on the next page
- [] = Potential Occupational Carcinogen
- ND = Not Been Determined



ABBREVIATIONS

abdom = Abdominal abs = Absorption

aggress = Aggressiveness

agit = Agitation anor = Anorexia

anos = Anosmia (loss of the sense of smell)

Anxi = anxiety anem – Anemia aspir = Aspiration asph – asphyxia bron = Bronchitis

bron pneu = Bronchitis pneumonitis [carc] = Potential occupational carcinogen

Card = Cardiac arrhythmias CNS = Central nervous system

conf = Confusion
constip = Constipation
con = Skin and/or eye contact

conv = Convulsions corn = Corneal cyan = Cyanosis defat = Defatting

depres = Depressant/Depression

derm = Dermatitis diarr = Diarrhea dist = Disturbance dizz = Dizziness drow = Drowsiness dry = Dry mouth

dysp = Dyspnea (breathing difficulty)

emphy = Emphysema

epil-conv = Epileptiform convulsions

eryth = Erythema euph = Euphoria fib = Fibrosis frost = frostbite ftg = Fatigue flush = Flushing GI = Gastrointestinal head = Headache

hyperpig = Hyperpigmentation

inco = Incoordination ing = Ingestion inh = Inhalation inj = Injury insom = Insomnia irrit = Irritation irrty = Irritability

lac = Lacrimination (discharge of tears)
lass = Lassitude (weakness, exhaustion)

li-head = Lightheadedness

liq = Liquid

low-wgt = Weight loss

mal = Malaise (vague feeling of discomfort)

malnut = Malnutrition

methem = Methemoglobinemia myo = Myochonic (jerks of limbs) mg/m = milligrams/cubic meter muc memb = Mucous membrane

mus ftg = Muscle fatigue

narco = Narcosis nau = Nausea ner = Nervousness numb = Numbness

optic = Optic nerve damage (blindness)

pall = Facial pallor parap = Paralysis ppm = Parts per million pares = Paresthesia paresi = Paresis

peri neur = Peripheral neuropathy

pneu = Pneumonitis prot = Proteinuria pulm = Pulmonary

peri neur = Peripheral neuropathy

pneu = Pneumonia prot = Proteinuria pulm = Pulmonary repro = Reproductive resp = Respiratory

skin sen = skin sensitization

salv = Salvation

som = Somnolence (sleepiness unnatural

drowsiness)

subs = Substernal (occurring beneath the sternum)

stup = Stupor sys = System tingle = tingle limbs trem - Tremors verti = Vertigo

vis dist = Visual disturbance

vomit = Vomiting
weak = Weakness



APPENDIX A

Safety and Logistics Planning Call Log



APPENDIX B Personnel Log



	PERSONNEL L	OG		
Name	Representing	Date	Time In	Time Out



APPENDIX C Supervisor's Investigation Report





INCIDENT REPORT

Section 1.0: Complete By Employee and Project Manager (provide to Human Resources Manager)

Incident Case No. _____

Employee Name:	Age:	Time employee	Weather Conditions:
First trace Title / Desition	C	began work:	
Employee Title/Position:	Sex:		Date of Report:
Department:	-	Date of Incident:	
·	□ Male		
Office Location:		Time of Incident:	Time Report Completed:
Supervisor:			
Employee Address:	Location of Incident:		
Street:	Address:		
City/Town:	City/Town:		
Zip Code:	State:		
·			
Phone Number:			
Type of Incident:	□ Near Miss or	□ Injury occurred du	ring routing work
□ Motor Vehicle Accident or	□ Near Miss or	🗆 Injury occurred dui	ing foutine work
□ Company or □ Personal Vehicle?		First-Aid performed on-s	
		Other Medical Attention	Provided? Yes / No
Time lost from work? Yes / No Num	ber of Hours: or	Number of Days:	
If injuries occurred, list names and describe			r of injured:
1.	-		-
2.			
3.			
4.			
Complete Section 3.0 WITNESS STATEMENT:			
WITNESS STATEMENT.			
WHAT HAPPENED AND WHAT WAS THE EMPOCCURRED?	PLOYEE DOING BEFORE 1	HE INCIDENT	
		De	scribe what took place?
		Wh	a was at fault for vohicle
WHAT WAS THE EMPLOYEE DOING WHEN T	THE INCIDENT OCCURRE		o was at fault for vehicle accidents, citation?
WINT WAS THE ETH 23.22 SOLITS THE ETH	TIE INCIDENT COOK	·	decidency diameter.
		Was p	power equipment involved,
MANUATIVAC TUC EMPLOYEE DOING ACTED T	ELIC INCIDENT OCCURRE		if so, describe?
WHAT WAS THE EMPLOYEE DOING AFTER 1	HE INCIDENT OCCURRE	J?	



WHAT WAS THE NATURE OF THE INJURY OR :	ILLNESS?		
		affecte Exam	us the body part that was ed and how it was affected — be specific ples: strained lower back; nemical burn on hand
WHAT WAS THE ROOT CAUSE OF THE INCIDE	NT?		6
List other individual involved in Section 3.		Job Wł	I the facts by studying the and situation involved. Question by use of HY - WHAT - WHERE - WHEN - WHO - HOW
COULD INCIDENT HAVE BEEN AVOIDED?	HOW?	noise fatigue	there other factors (e.g., , ventilation, illumination, e, age, medical conditions) ontributed to the accident?
WAS TRAINING FOR THE WORK ACTIVITY PRO	OVIDED:		WARNING SIGNS OR
TYPE:		LABELS	S POSTED:
DATES:			
WHAT SHOULD BE DONE? HOW CAN INCIDE	NT BE AVOIDED IN THE FUTURE?	EQUIP NEEDE AVAILA	
WHAT HAVE YOU DONE THUS FAR?			
			or recommend action, ding upon your authority. up – was action effective?
HOW WILL THIS IMPROVE OPERATIONS?			
		Eli	OBJECTIVE minate job hindrances
Completed by:	Reviewed by:		Date



Section 2.0: Complete By Supervisor or Human Resources Manager

Role (witness, observer, injured, participant, etc.):

Address:

Address:

Address:

Phone Number

Phone Number

	Phone	e Number	
Name:	Addre	SS:	
Role:			
	Phone	e Number	
Name:	Addre	ss:	
Role:			
	Phone	e Number	
Name:	Addre	ss:	
Role:			
ection 3.0: Corrective Actions (To b Are corrective actions warranted? Yes	e Compl	eted by OHSM and CHSO) so, proceed with corrective action list	
Are corrective actions warranted? Yes Corrective Actions. List long term actions to be taken as a result of incident (use additional	e Compl	eted by OHSM and CHSO)	Target date of completion
Are corrective actions warranted? Yes Corrective Actions. List long term actions to be	e Compl	eted by OHSM and CHSO) so, proceed with corrective action list	Target date of completion
Are corrective actions warranted? Yes Corrective Actions. List long term actions to be taken as a result of incident (use additional	e Compl	eted by OHSM and CHSO) so, proceed with corrective action list	_
Are corrective actions warranted? Yes Corrective Actions. List long term actions to be taken as a result of incident (use additional	e Compl	eted by OHSM and CHSO) so, proceed with corrective action list	_
Are corrective actions warranted? Yes Corrective Actions. List long term actions to be taken as a result of incident (use additional	e Compl	eted by OHSM and CHSO) so, proceed with corrective action list	_
Are corrective actions warranted? Yes Corrective Actions. List long term actions to be taken as a result of incident (use additional	e Compl	eted by OHSM and CHSO) so, proceed with corrective action list	_



Department.

Name:

Name:

Name:

Role:

Role:

Section 4.0: Complete By Human Resources Manager

Incident	Report	Case	No.		

The information on this page is considered CONFIDENTIAL and must be treated as such. This page will only be available to Human Resources Department or the employee's supervisor.

Insured Name:	Employee Hire Dates: Start at Company: Current Position:			
Policy Number:	Is employee a company: Owner, Officer, Neither.			
Employee Soc. Sec. No.:	Marital Status: Spouse Name:			
Was Employee Pay Interrupted, or paid in full for time:	Employee Pay Period: Weekly, Bi-Weekly, Monthly, Other (specify)			
Employee Compensated by hourly or salary? Wage Information: (tips, bonuses, commission)	Typical No. of hours worked per day, hours per week Typical Start of day time, end of day time			
Date of Stop Work: Date Returned to Work:	How often has employee visited doctor/hospital?			
Doctor: Authorized by Co.: Y / N	Hospital:			
Street:	Street:			
City/Town:	City/Town:			
Zip Code:	Zip Code:			
Phone Number:	Phone Number:			
Authorized by Co.: Y / N	Authorized by Co.: Y /N			
Was the employee treated in an emergency room? □ Yes □ No	Was employee hospitalized overnight as an in-patient? □ Yes □ No If so, for how many days?			



APPENDIX D Daily Job Brief Record



JOB BRIEF RECORD

Person	Conducting		Site Name/Address HRP H&S Rep. Number Attending			HRP Client Name/Job #					
Client (Contact/Phone					HRP Supervisor Weather					
Date/T	ïme										
Desigr	nated Competent Pers	son:									
Descri	ption of Work:										
ttend	lees (use additional sho Name	eets as neede	d): 		Company			Signa	ture		
				сыприпу							
Fmer	gency Telephone N	umbers		FIR	RE / POLICE / AMBULA	NCF:	911				
Linery		ital Name &	l ocation:	1 11	C / TOLICE / AMBOLA	ii VCL.	J11				
	•				tional Response Cente	r. RC	0-424-8802	CRY	\D∙ 800	-022-4455	
NYSDEC Spill Line: 1-518-457-7362 Health & Safety Manager:		National Response Center: 800-424-8802 CBYD: 800-92 Mark Wright: 203-308-0983			-922-4433						
		,			J						
HAZAR	RDS	_		_		_		_			
	Toxic	_	Cold/Heat		Soil Excavation				Powerwa	•	
	Corrosive	☐ Drains/S			Tank Excavation	L	Hot Work			Work Area	
	Flammable	Sharp Ol			Trenching					rical Circuits	
	Combustible	☐ Drilling in	1 5011		Floor Holes				Pneumati		
	Reactive Path Waste	☐ Lighting ☐ Slips/Trip	ac/Ealle		Working on/near Water Underground/Overhead		_		Drum Hai Abrasive	_	
	Asbestos	Lead	os/i alis		Utilities		Litting		ADIASIVE	biasting	
		_									
PERSO	NAL SAFETY										
	Supplied Air Respirator	☐ SAR w/	Egress Bottle		SCBA		Air Purifying Respirat	or Cartrid	lge:		
	Fully Encapsulating Suit	☐ Flash S	uit		NOMEX (flam resistant)		Protected Coveralls,	Гуре:			
	Overboots	Lifebelt	/Lanyard		Hardhats		Outer Gloves, Type:				
	Safety Glasses	☐ Chemic	al Goggles		Face Shield		Inner Gloves, Type:				
	Reflective Vests	☐ Eye Wa	sh		Safety Shower		First Aid Kit			PFD's	
	Hearing Protection	☐ Evacua	tion Plan		Communications		Properly Sloped Trench	Excavat	ion/	Ventilation	

FIRE SAFETY			
☐ Fire Extinguishers☐ Equipment Grounded & Bonde☐ Smoking Area Designated Local		☐ Fire Blanket ☐ Eliminate Ignition Sc ☐ Alarm Box in Area, L	
Fire Hose Laid Out			
ISOLATE EQUIPMENT		ELECTRICAL EQUI	
☐ Establish Exclusion Zone/Traff	fic Cones	☐ LockOut/TagO	
☐ Stop Transfers	☐ Caution Tape A	rea 🔲 Equipment Gro	ounded
☐ GFCIS	☐ Temporary Fen	cing	
AIR MONITORING	Type of Meter:		Date last calibrated:
SUBSTANCE	LEVEL B MAX.	ACTION LEVEL/LEVEL C	MAX. LEVEL D MAX.
Contaminants of Concern:			
HEALTH & SAFETY SIGNATURE:		_	Date:
Is there a Site-Specific or Generic	Health & Safety Plan availa	ble on-site? Yes	No 🗌
☐ HAZARD ZONES NOT APP	PLICABLE, GENERAL WORK	AREA	
Level D Modified	Level D Level C		
Anything above Level C, foreman	should use a Confined Spac	ce Permit/Form.	
		m 20# fire extinguisher. For considered a COC if no chem	reman or HSM must record at least on ical hazards are expected.
LEVEL C Respirator Type:			
Name	Zone	Time In Tim	ne Out Decon Type

Before performing Level C work, ALL employees must review HRP's Respiratory Protection Program - a copy of which must be on-site along with a HASP.

APPENDIX E Equipment Calibration Log



EQUIPMENT CALIBRATION LOG						
Instrument	Calibration Date	Calibrated By				



APPENDIX F Community Air Monitoring Plan



Appendix 1A New York State Department of Health Generic Community Air Monitoring Plan

Overview

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

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

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

Community Air Monitoring Plan

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

Continuous monitoring will be required for all <u>ground intrusive</u> 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 <u>non-intrusive</u> 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

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

VOC Monitoring, Response Levels, and Actions

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

- 1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- 2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- 3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
- 4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

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

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- 1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) 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/m³ above the upwind level and provided that no visible dust is migrating from the work area.
- 2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m³ 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/m³ of the upwind level and in preventing visible dust migration.
- 3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

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APPENDIX G

COVID-19 Health and Safety Guidelines



APPENDIX H

Safety Data Sheets (for chemicals brought to the site)



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