Community Air Monitoring Plan/Community and Environmental Protection Plan





45 Main Street, Suite 1018 | Brooklyn, New York 11201 | p 917-280-6364

Table of Contents

1.0	INTRODUCTION	4
2.0	PROJECT RESPONSIBILITIES	4
2.1	1 Site Location and Description	5
2.2	2 Potential Air Emissions Related to Remedial Activities	5
2.3	3 Air/Odor Emission Control Measures	5
3.0	COMMUNITY AIR MONITORING METHODOLOGY	6
3.1	1 Background Monitoring	6
3.2	2 Downwind Perimeter Monitoring	7
	3.2.1 Downwind Perimeter VOC Monitoring:	7
	3.2.2 Downwind Perimeter Fugitive Dust Monitoring:	8
3.3	3 Nearest Potential Receptor Monitoring/CAMP Special Requirements	8
3.4	4 Odor Monitoring	9
4.0	VAPOR EMISSION TO SENSITIVE RECEPTORS RESPONSE PLAN	10
5.0	REPORTING	10

- Figure 1 Proposed CAMP Monitoring Areas
- Figure 2 Proposed CAMP Monitoring Areas North
- Figure 3 Proposed CAMP Monitoring Areas South
- Figure 4 Proposed CAMP Monitoring Areas West
- Figure 5 Proposed CAMP Monitoring Areas East

Appendix A Generic CAMP

ACRONYMS

ACM	Asbestos Containing Materials
ВСР	Brownfield Cleanup Program
САМР	Community Air Monitoring Plan
СЕРР	Community and Environmental Protection Plan
cf	cubic feet
CLC	Conifer-LeChase Construction LLC
сос	Constituent of Concern
NYSDEC	New York Station Department of Environmental Conservation
NYSDOH	New York State Department of Health
OU	Operable Unit
PID	Photoionization Detector
ppm	parts per million
RAWP	Remedial Action Work Plan
VOC	volatile organic compound
µg/m³	micrograms per cubic meter

1.0 INTRODUCTION

This Community Air Monitoring Plan/Community and Environmental Protection Plan (CAMP/CEPP) has been prepared by LaBella Associates, D.P.C (LaBella) to support the implementation of remedial activities for the Warburton Dry Cleaners Site (Site), located at 321 Warburton Avenue in the City of Yonkers, Westchester County, New York. Details related to the remedial activities are presented in the Remedial Action Work Plan (RAWP). The Site is enrolled in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) (Site No. C360227).

The purpose of this CAMP/CEPP is to describe the air monitoring activities that will be conducted to monitor for potential airborne releases of constituents of concern (COCs) during the implementation of remedial activities described in the RAWP. This CAMP/CEPP addresses potential Volatile Organic Compound (VOC) vapor and particulate emissions that may occur during the remedial measures at the Site. This CAMP/CEPP specifies the air emission action levels, air monitoring procedures, data collection and reporting to be performed during remedial construction. This plan will be implemented during all remedial activities and future ground intrusive work.

This CAMP is based on the air monitoring specified in the New York State Department of Health (NYSDOH) Generic CAMP (included as Appendix 1A of the DER-10 NYSDEC Technical Guidance for Site Investigation and Remediation dated May 2010). However, this CAMP also includes New York State Department of Health (NYSDOH) special requirements for working close to sensitive receptors. The purpose of this CAMP/CEPP is to present a summary of the site monitoring and work practices that will be completed to address potential short-term impacts to the surrounding community, sensitive receptors, and/or environmental resources.

Section 2 of this CAMP/CEPP summarizes the monitoring to be conducted during remedial construction activities, and Section 3 describes site management and controls.

2.0 PROJECT RESPONSIBILITIES

Responsibilities of Conifer (Owner or Client), Conifer LeChase Construction LLC. (CLC) or their subcontractor, Terry Contracting (Remedial Contractor), and LaBella Associates (Qualified Environmental Professional/Engineer), as they relate to the implementation of this CAMP/CEPP, are as follows:

- Conifer (Owner or Client) Primary responsibility is to coordinate with CLC and LaBella Associates to implement the required work activities in conformance with the Remedial Design. Conifer is responsible for the administration of the work required and specified within the Contract Documents as well as contracting with CLC and LaBella Associates.
- CLC Primary responsibility is the Construction Manager and they coordinate between Owner and Remedial Contractor to complete remedial activities as presented in the Remedial Design. CLC is responsible for performing community air monitoring in accordance with this CAMP/CEPP and implementing controls to address community air monitoring exceedances or odors, if necessary. CLC or their subcontractor will conduct vibration monitoring during the demolition and excavation activities.
- LaBella Associates (Engineer) Responsibility is to provide staff to observe, monitor, and direct implementation of the remedial activities. In addition, LaBella is responsible for performing community air monitoring in accordance with this CAMP/CEPP. LaBella is also responsible for notifying and coordinating with Remedial Contractor to ensure implementing controls to address community air monitoring exceedances or odors, if necessary. LaBella has "stop work" authority in the event that air monitoring identifies exceedances.

• Terry Contracting (Remedial Contractor) – Responsibility is to implement the remedial work in accordance with the RAWP and all local, state and federal regulations. Remedial Contractor is also responsible for implementing all dust and VOC mitigation measures necessary to ensure compliance with this CAMP/CEPP.

2.1 Site Location and Description

The BCP Site (Site) is a $(\pm)1.166$ -acre property and comprised of 15 tax lots located in a mixed residential and commercial area of Yonkers, New York. The 15 tax lots will be merged into one following closing. The Site is comprised of undeveloped land, a vacant mixed-use (residential and commercial) building, a detached two-bay garage, and an unoccupied formerly residential building.

Various levels of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, and per- and polyfluoralykl substances (PFAS), (collectively referred to as "constituents of concern" (COCs)) have been detected in the soil and groundwater at the Site or are suspected to be contained in the soil and/or groundwater at the Site. The presence of these COCs through disturbance of soil and groundwater at the Site can potentially result in nuisance odors or fugitive emissions to the neighborhood in the immediate vicinity of the Site as well as to the various occupants of the Site.

2.2 Potential Air Emissions Related to Remedial Activities

As defined in the New York State Department of Health (NYSDOH) Generic CAMP (included as Attachment 1), intrusive remedial activities to be performed at the site have the potential to generate localized impacts to air quality. Remedial components that have the potential to generate air emissions include, but may not be limited to, the following:

- Excavation of source area soil;
- Import and Backfilling of approved imported material;
- Material handling (e.g., separation of listed hazardous waste from non-hazardous waste, stockpiling waste materials, loading waste materials for transport to the off-site treatment/disposal facility); and
- Other ground-intrusive activities.

2.3 Air/Odor Emission Control Measures

Air emissions control and fugitive dust suppression measures will be implemented by Remedial Contractor concurrently with the activities identified above (as needed) to limit the potential for organic vapor and dust emissions from the site. Air emissions associated with excavation/removal, backfilling, material handling and stockpiling and other ground intrusive activities will be controlled as described below. The following vapor and dust control measures may be used during these activities, depending upon specific circumstances, visual observations, and air monitoring results:

- 5,000-gallon water tank with pressurized water sprinkler;
- Polyethylene sheeting for covering material stockpiles;
- Wetting site haul roads and excavation faces as needed; and,
- Minimizing excavation surface area to be exposed at any given time.

Remedial Contractor will maintain a 5,000-gallon water tank for the duration of intrusive activities. Remedial Contractor will use the pressurized water sprinkler for dust suppression whenever visual dust is observed and/or if CAMP stations indicate high levels of dust.

Additional measures will be implemented if needed.

3.0 COMMUNITY AIR MONITORING METHODOLOGY

This CAMP has been designed for remedial activities at the Site. These activities, hereinafter referred to as "remedial activities," include, but are not limited to: soil excavation, bedrock excavation, soil borings via a Geoprobe, soil borings via a rotary drill rig, installation of monitoring wells, test pitting, soil sampling, and groundwater sampling. The CAMP is arranged in the following sections:

- Section 3.1: Background/Upwind Monitoring This section identifies the background monitoring (VOC and fugitive dust) to be completed at the beginning of each day and periodically throughout the day when remedial activities are being conducted. The background monitoring is used for comparing readings from the other monitoring locations.
- Section 3.2: Downwind Perimeter Monitoring This section identifies the downwind perimeter work area monitoring (VOC and fugitive dust) to be completed continuously during the remedial activities. Action levels are identified in this section.
- Section 3.3: Nearest Potential Receptor Monitoring This section identifies additional VOC monitoring that will be completed during remedial activities to provide an added measure of protection at this Site that would not normally be required by NYSDEC or NYSDOH (i.e., this is above and beyond the NYSDOH Generic CAMP). Action levels are identified in this section.

In addition to the above, this CAMP also contains a Vapor Emission to Sensitive Receptors Response Plan (Section 4.0). This includes actions to be taken if sustained exceedances of the specified action levels occur.

3.1 Background Monitoring

One (1) background/upwind monitoring location will be established each day. At the beginning of each workday during the remedial activities, the wind direction weather station installed in the downwind CAMP monitor will be used to monitor wind direction in the work areas. Based on daily wind conditions, a background monitoring station will be established. If the wind direction changes, the background monitoring station will be moved to an appropriate upwind location. It should also be noted that previous work has shown that the wind at this Site has been erratic. As such, one (1) background monitoring station will be located upwind and at least 25 feet away from the work area (if possible). After establishing the initial background measurements (VOC and particulate, see below), background measurements will be collected every 60 minutes during remedial activities for that day. The specific background monitoring is defined below:

- <u>Background VOC Monitoring</u>: A Photoionization Detector (PID) capable of data logging will be used to screen the ambient air or VOCs in the background location (i.e., upwind). The PID will be calibrated in accordance with the manufacturer's specifications and prior to collecting the background readings. The background readings will be collected by a 15-minute running average which will be used for comparison to the downwind perimeter monitoring (refer to Section 3.2) and the nearest potential receptor monitoring (refer to Section 3.3). After the initial reading, periodic background readings will be collected every 15 minutes.
- <u>Background Fugitive Dust Monitoring</u>: A DustTrakTM Model 8520 aerosol monitor, or equivalent, will be used for measuring particulates. The meter must be capable of measuring matter less than 10 micrometers in size (PM-10). The dust monitor will be calibrated routinely in accordance with the manufacturer's specifications and prior to collecting the background readings. The background dust

monitoring will consist of collecting measurements integrated over a 15-minute period and will be used for comparison to the downwind perimeter monitoring (refer to **Section 3.2**). After the initial reading, periodic background readings will be collected every 15 minutes.

3.2 Downwind Perimeter Monitoring

Two (2) downwind air monitoring locations will be established each day based on areas being worked and wind direction. If ground intrusive work is occurring on both the Warburton parcels and the Woodworth Avenue parcels, then a 3rd downwind monitor will also be used on the Woodworth Avenue parcels (i.e., 2 on Warburton and 1 on Woodworth Avenue).

After collecting the initial Background Monitoring measurements, continuous monitoring of the downwind perimeter of the work area (i.e., exclusion zone) will be conducted during the remedial activities that day. Due to the proximity of residential buildings surrounding the Site, multiple downwind perimeter stations will be established during remedial activities. The downwind perimeter stations will vary depending on the work; however, in general, the downwind perimeter stations will be placed along the property line downwind from the work area. The areas of downwind monitoring are shown on **Figure 1**, and **Figures 2-5** indicate monitoring locations based on wind direction for the cardinal directions. Winds between these directions will result in shifting monitoring locations accordingly.

3.2.1 Downwind Perimeter VOC Monitoring:

A MiniRae 3000 PID or equivalent will be used to continuously monitor for VOCs at the downwind perimeter locations. The PID will be calibrated in accordance with the manufacturer's specifications. An audible alarm will be set on the PID to sound if total organic vapors exceed 5 parts per million (ppm) above the background readings. For example, if the background reading is 2 ppm, then the alarm will be set for 7 ppm.

Actions for Elevated VOC Readings

- 1. In the event that the action level of 5 ppm above background is exceeded, then work activities will 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 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 (refer to Section 4.0 for engineering controls), and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200-feet downwind of the work area 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 (background based on the 15-minute average).
- 3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shut down and the Vapor Emission to Sensitive Receptors Response Plan initiated, refer to **Section 4.0.**

All the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request. Instantaneous readings, if any, that are used for decision purposes will also be recorded.

3.2.2 Downwind Perimeter Fugitive Dust Monitoring:

A DustTrakTM Model 8520 aerosol monitor, or equivalent, will be used for measuring particulates. The dust meter must be capable of measuring matter less than 10 micrometers in size (PM-10) and be equipped with an audible alarm. The dust meter will be calibrated in accordance with the manufacturer's specifications. The dust monitoring will be conducted continuously, and the measurements integrated over a 15-minute period. The results will be compared to the background monitoring (refer to **Section 3.1**). An audible alarm will be set on the dust meter to sound if particulate levels exceed 100 micrograms per cubic meter (μ g/m³) greater than background for the 15-minute period. For example, if the background reading is 100 μ g/m³, then the alarm will be set for 200 μ g/m³.

Actions for Elevated Particulate Readings

- 1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (µg/m³) greater than background (upwind) for the 15-minute period or if airborne dust is observed leaving the work area, then Fugitive Dust Control Techniques must be employed (see below). Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 µg/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 µg/m³ above the upwind level, work must be stopped, and the Fugitive Dust Control Techniques identified below will be reevaluated. In this event the NYSDEC Project Manager will be contacted immediately. Work can resume if dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 µg/m³ of the upwind level and in preventing visible dust migration.
- 3. All the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request.

Fugitive Dust Control Techniques

One or more of the following dust control measures will be implemented if the above action levels are exceeded:

- Apply water on exposed soils.
- Wetting equipment and test pit faces.
- Reducing test pit sizes.
- Immediately placing any investigation derived waste in drums and/or covering with plastic sheeting.

3.3 Nearest Potential Receptor Monitoring/CAMP Special Requirements

Due to the site layout and close proximity to adjacent residences, Nearest Potential Receptor Monitoring stations will also be established.

During work on the Warburton Avenue parcels, two (2) nearest receptor locations will be established in the following areas:

- 1. Adjacent to the residential apartment building located at 256-258 Woodworth Avenue, and
- 2. Adjacent to the residences to the south.

During work on the Woodworth Avenue Parcels one (1) nearest receptor monitoring station will be placed along the property line in a location along the property line between the work area and nearest residence at the time of work.

The nearest potential receptor CAMP stations will be located along the property line with the receptor. The specific location of the nearest potential receptor monitoring locations will be based on wind direction and areas of excavation. The areas of nearest potential receptor monitoring are depicted on **Figure 1. Figures 2**-**5** indicate monitoring locations based on wind direction for the cardinal directions. Winds between these directions will result in shifting monitoring locations accordingly.

The CAMP station will be operated continuously and evaluate 15-minute running averages to account for any drift.

Actions for Elevated VOC & Particulate Readings

- 1. In the event that the action level of 1 ppm above background is exceeded, then work activities will be temporarily halted and monitoring will continue. If the total organic vapor level readily decreases (per instantaneous readings) below 1 ppm over background at the Nearest Potential Receptor Monitoring Location work activities can resume with continued monitoring (assuming the downwind perimeter location is also below its action level, refer to **Section 3.2**).
- 2. If total organic vapor levels at the Nearest Potential Receptor Monitoring Location persist at levels in excess of 1 ppm over background but less than 10 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions (refer to **Section 4.0** for engineering controls), and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level at the Nearest Potential Receptor Monitoring Location is below 1 ppm over background (background based on the 15-minute average).
- 3. If the organic vapor level is above 10 ppm at the Nearest Potential Receptor Monitoring Location, activities must be shut down and the Vapor Emission to Sensitive Receptors Response Plan initiated, refer to **Section 4.0**.
- 4. If total particulate concentrations in proximity to occupied structures or next to intake vents exceed 150 μg/m³, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 μg/m³ or less at the monitoring point.

All of the 15-minute readings will be recorded and will be available to NYSDEC and NYSDOH for viewing upon request. Instantaneous readings, if any, that are used for decision purposes will also be recorded.

3.4 Odor Monitoring

During working hours, LaBella shall perform periodic walks around the perimeter of the work area to monitor for VOC-related odors in accordance with the CAMP/CEPP. The perimeter checks will be performed more frequently, as necessary, depending on the work being performed. If VOC-related odors are noticed along the perimeter of the work area, work will be halted, and odor, vapor, and dust suppression techniques employed to abate emissions. Additionally, construction techniques will be evaluated and modified, if necessary and appropriate, and more frequent checks of the work area perimeter for VOC-related odors will be performed. If VOC-related odors continue to be noticed at the perimeter of the work area, work will be stopped while activities are re-evaluated and the NYSDEC and NYSDOH will be notified. The source or cause of the VOC-related odors will be implemented. Work will resume provided the measures are successful at abating the odors noticed along the work area perimeter. Detailed requirements of odor monitoring are presented in this CAMP/CEPP.

4.0 VAPOR EMISSION TO SENSITIVE RECEPTORS RESPONSE PLAN

Engineering controls to abate VOC emissions source will immediately be put into effect if the action levels for VOC monitoring identified in **Section 3.0** are exceeded. These engineering controls may include:

- Vapor suppression utilizing foam vapor suppressants, polyethylene sheeting, or water.
- Backfilling of excavations (test pits).
- Covering emission sources with stockpiled materials.

If the measures taken to abate the emission source are ineffective and the total organic vapor readings continue to be above the specified action levels for more than 15 minutes (5 ppm at the downwind perimeter monitoring location or 1 ppm at the Nearest Potential Receptor Monitoring Location), then the following actions shall be placed into effect.

- Occupants of the commercial buildings on-site will be advised to stay inside their respective structure and to close all windows.
- All personnel listed in the Emergency Contacts section of the HASP for this project will be contacted.
- The Site Safety Supervisor will immediately contact the local authorities (fire department) and advise them of the circumstances.
- Continuous air monitoring will be conducted at the Downwind Perimeter Location, the Nearest Potential Receptor Monitoring Location and within the work zone and 1 minute average measurements will be recorded every 15 minutes. Air monitoring may be halted or modified by the Site Safety Supervisor when two successive measurements are below the specified action levels.

If readings remain elevated above the specified action levels for a period of 60 minutes (5 ppm at the downwind perimeter monitoring location or 1 ppm at the Nearest Potential Receptor Monitoring Location) the Site Safety Officer will request that local authorities evacuate the occupants of the buildings.

5.0 **REPORTING**

All CAMP data will be presented in daily reports and to be presented to NYSDEC by 12:00 of the following day. LaBella will prepare a monthly report, which will include a summary of community air monitoring exceedances (if any), work activities associated with the exceedances, and corrective actions implemented to address the exceedance.

The monthly summary will be submitted in an electronic format to the contacts listed in **Table 1** below.

Name	Affiliation	Contact Information
Caroline Jalanti	NYSDEC	T: 518.402.9650
		caroline.jalanti@dec.ny.gov
Christopher Budd	NYSDOH	T: 518.402.1769
		Christopher.Budd@health.ny.gov
Lauren Williams	Conifer	T: 856 793 2094
		lauren.williams@coniferllc.com
Michael Grispin	CLC	T: 914-758-2270
		michael.grispin@lechase.com

Table 1: CAMP/CEPP Contact List



FIGURES





Warburton Dry Cleaners Site City of Yonkers, Westchester County, NY

Remedial Action Work Plan



Legend

Nearest Receptor Monitoring Areas
 Downwind Perimeter Monitoring Areas
Site Boundary
SubjectPropEast
 Streets

Proposed CAMP Monitoring Areas

FIGURE 1





Warburton Dry Cleaners Site City of Yonkers, Westchester County, NY

Remedial Action Work Plan



Legend

 Nearest Receptor Monitoring Areas
 Downwind Perimeter Monitoring Areas
Site Boundary
SubjectPropEast
 Streets
CAMP Station
Upwind Station

Proposed CAMP Monitoring Areas - North

FIGURE 2





Warburton Dry Cleaners Site City of Yonkers, Westchester County, NY

Remedial Action Work Plan



Legend

Nearest Receptor Monitoring Areas
 Downwind Perimeter Monitoring Areas
Site Boundary
SubjectPropEast
 Streets
CAMP Station
Upwind Station

Proposed CAMP Monitoring Areas - South

FIGURE 3





Warburton Dry Cleaners Site City of Yonkers, Westchester County, NY

Remedial Action Work Plan



Legend

 Nearest Receptor Monitoring Areas
 Downwind Perimeter Monitoring Areas
Site Boundary
SubjectPropEast
 Streets
CAMP Station
Upwind Station

Proposed CAMP Monitoring Areas - West

FIGURE 4





Warburton Dry Cleaners Site City of Yonkers, Westchester County, NY

Remedial Action Work Plan



Legend

 Nearest Receptor Monitoring Areas
 Downwind Perimeter Monitoring Areas
Site Boundary
SubjectPropEast
 Streets
CAMP Station
Upwind Station

Proposed CAMP Monitoring Areas - East

FIGURE 5