Community Air Monitoring Plan

Prepared for**:**

Review Avenue Development Properties
Long Island City, Queens, New York

Review Avenue Development (RAD) I
37-30 Review Avenue
(BCA # 241089)

and

Review Avenue Development (RAD) II
37-80 Review Avenue
(BCA # 241005)

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Table of Contents

1 INTRODUCTION 1

1.1 Overview 1

1.2 Community Air Monitoring Plan 1

1.3 VOC Monitoring, Response Levels, and Actions 1

1.4 Particulate Monitoring, Response Levels, and Actions 2

1.5 Meteorological Monitoring 2

1.6 Available Suppression Techniques 2

1.7 Reporting 3

1 INTRODUCTION

1.1 Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for total organic vapors 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 remedial construction work activities and monitoring 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 do not spread contamination off-site through the air.

This generic CAMP is designed to cover monitoring activities for any ground intrusive activities that may occur at the Review Avenue Development (RAD) Sites RAD I and RAD II, located on Review Avenue, Long Island City, Queens County, New York. Reliance on this CAMP will not preclude simple, common-sense measures to keep organic vapors, dust, and odors at a minimum around the work areas.

1.2 Community Air Monitoring Plan

Because petroleum-related volatile organic compounds (VOC), petroleum-related semi-volatile organic compounds (SVOCs), chlorinated solvent VOC, heavy metals, and polychlorinated biphenyls (PCB) have previously been detected in soil and groundwater samples collected at the Site, real-time air monitoring for total organic vapors and particulate levels at the perimeter of the work area will be implemented. Radiological contamination has not been identified as a concern at the Site.

Continuous monitoring for total organic vapors and particulates will be conducted for the construction activities associated with the installation of the LNAPL recovery system, the advancement of boreholes for monitoring wells, and construction modifications and repairs to the LNAPL recovery system.

Periodic monitoring for total organic vapors will be required during the collection of LNAPL samples and the collection of groundwater samples from recovery wells and monitoring wells. Monitoring during sample collection will consist of taking a reading upon arrival at a sample location, monitoring while opening the caps of the recovery wells and monitoring wells, monitoring during well purging, and taking a reading prior to leaving a sample location.

1.3 Total Organic Vapor Monitoring, Response Levels, and Actions

Total organic vapors will be monitored at the downwind perimeter of the immediate work area on a continuous basis, or as otherwise specified, using equipment appropriate to measure the types of contaminants known or suspected to be present. A minimum of two monitors will be set up daily. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern. The equipment will 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 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 will 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 will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will 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 will be shutdown.

4. All 15-minute readings will be recorded and be available for the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

1.4 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the immediate work area 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 should be visually assessed during all work activities.

1.5 Meteorological Monitoring

Meteorological data will be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The meteorological data to be monitored consists of wind speed, wind direction, temperature, barometric pressure, and relative humidity. Wind direction measurements will be utilized to position the total organic vapor and particulate monitoring equipment in appropriate upwind and downwind locations. A wireless instrument station or equivalent will be used to measure and log the meteorological data.

1.6 Available Suppression Techniques

A potable water (mist) or vapor suppression foam will be applied to areas where the generation of total organic vapors and odors, or particulates may be released into the air at unacceptable levels during intrusive activities in order to mitigate potential airborne contaminant releases. Potable water misting via dedicated hose will be utilized as a daily site control measure to mitigate the potential for particulate/dust released into non-contaminated areas and roadways. Excavation methods and material staging and loading methods will be continually evaluated and modified (as necessary) to alleviate the potential for total organic vapors, odor, and particulate releases.

1.7 Reporting

All recorded monitoring data will be downloaded and field logged daily, including Action Limit Reports (if any) and daily CAMP monitoring location plans. All records will be maintained onsite for NYSDEC and NYSDOH to review. A description of the CAMP-related activities will also be included in the Monthly Progress Report submitted to the NYSDEC. Additionally, all CAMP monitoring records will be included in the overall report that will be submitted to the NYSDEC. If work stoppage is necessitated by inability to practically control fugitive emissions to below the action limit, the NYSDEC will be notified within twenty-four hours of the work stoppage.

Table 1. Summary of CAMP Monitoring Action Levels

PARAMETER	RANGE	ACTION REQUIRED
Total Organic Vapors	0 ppm to <1 ppm above background at perimeter	Normal operations will continue with breathing zone monitoring.
	>5 ppm peak above background at perimeter	Work activities will be halted and monitoring will be continued. If instantaneous readings steadily decrease, work may resume.
	>25 ppm above background in work area	Work activates will be halted and the source of vapors will be identified. Corrective actions will be taken to abate emissions and monitoring will be continued.
Particulates	<150 µg/m^3 at downwind perimeter	Normal operations.
	>150 µg/m^3 average sustained for more than 15 minutes at downwind perimeter	Collect upwind perimeter reading for comparison with downwind reading.
	>100 µg/m^3 above upwind background, or visible dust migrating from disturbance area beyond perimeter	Employ dust suppression techniques.
	Dust suppression cannot control downwind levels to <100 µg/L compared with Upwind	Work activities will be halted and corrective actions taken.