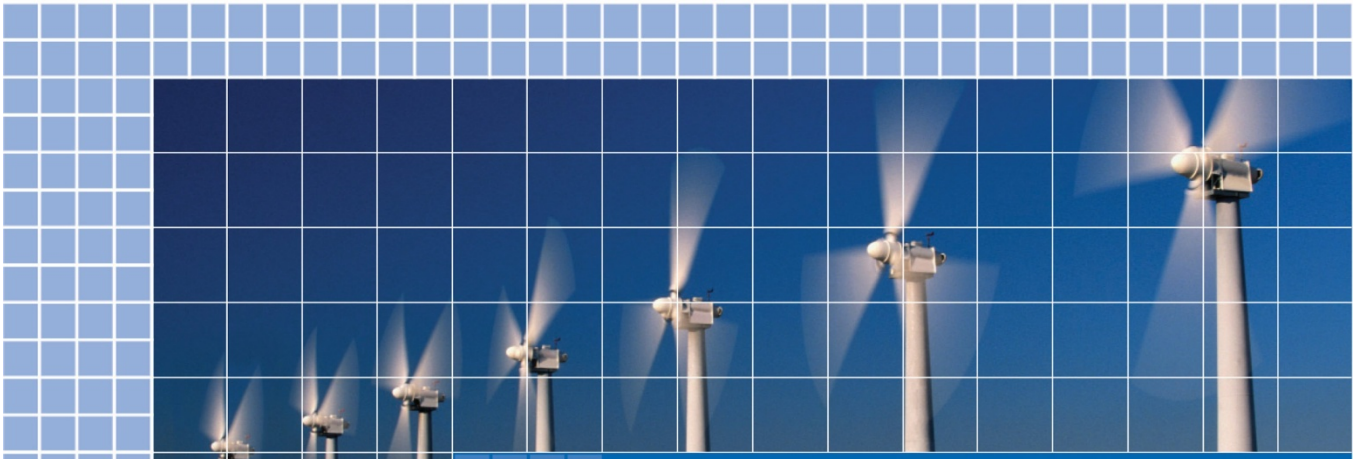

COMMUNITY AIR MONITORING PLAN
SEWER RESTORATION PROJECT
EAST SPENCER STREET AND TURNER PLACE
ITHACA, NEW YORK

July 15, 2011

REVISED

PREPARED

BY

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1 Introduction

WSP Environment & Energy, on behalf of Emerson and its subsidiary, Emerson Power Transmission Corp. (EPT), has prepared this Community Air Monitoring Plan (CAMP), which presents a scope of work for monitoring ambient air quality to protect receptors in the South Hill community during the implementation of the remedial action for Operable Unit No.3 (OU No. 3) at the Morse Industrial Corporation Site in Ithaca, New York. Specifically, the proposed air monitoring plan is designed to ascertain whether the sewer excavation and replacement work may be give rise to chlorinated volatile organic compounds (VOCs) that could affect ambient air quality within the South Hill community. This work plan was prepared in accordance with requirements outlined in the July 13, 1987, Consent Order (Index # A7-0125-87-09) entered into by the NYSDEC and EPT.

The New York State Department of Health (NYSDOH) requires the implementation of a CAMP for sites where ground intrusive activities, including the excavation and handling of contaminated soil, is performed. The CAMP for the sewer excavation and replacement project for OU No. 3 addresses both VOC and particulate monitoring in accordance with NYSDOH requirements. CAMP requirements consist of periodic and continuous monitoring, based primarily on the type of intrusive work being performed. Activities to be performed for the sewer restoration project fulfill both types of monitoring, which are described in detail below.

This work plan provides background information on the site, the work plan objective, the scope of work for the proposed sampling activities, and information regarding report preparation and project schedule.

1.1 SELECTION OF CAMP MONITORING LOCATIONS

Since the purpose of CAMP is to protect potential receptors from contaminants generated during the sewer excavation and replacement work, monitoring locations will be positioned at project (i.e., perimeter) areas downwind of potential contaminant-generating activities. Two monitoring locations will be placed +/-30 degrees of the predominant down wind direction, as established by local weather station data. At least one of these receptors must be positioned between the work zone and nearest receptor. Two upwind monitoring locations will be positioned opposite the down wind direction (i.e., +/-180 degrees) to determine background VOC and particulate concentrations entering the site. Both periodic and continuous monitoring will be performed at these locations.

In the event that site conditions change or the predominant wind direction experienced during site work appears significantly different than reported locally, the monitoring locations may be moved to perimeter locations most likely to detect generated contaminants.

1.2 PERIODIC MONITORING

WSP will collect instantaneous VOC measurements at the initiation and during the sewer excavation and replacement activities. Intermittent VOC measurements will also be collected when health-related monitoring in the work area detects VOCs above the CAMP action level.

1.3 CONTINUOUS MONITORING

Continuous monitoring for VOCs and particulate will be conducted during ground intrusive activities, primarily during excavation work during the sewer restoration project. Appropriate monitoring equipment will be employed to continuously monitor these parameters, as well as data log for CAMP recordkeeping requirements.

For VOCs, a photoionization detector (PID) will be used for continuous monitoring. A PID will detect VOCs at a level well below the CAMP VOC action level, and be programmed to perform data logging. The PID will be placed at an approximate breath zone height, estimated at 4 feet above ground surface.

Continuous particulate monitoring will be performed using a MIE PDM-3 Minram direct sensing, real-time monitor or equivalent, with data logging capabilities. This device can detect airborne particulate at levels well below the CAMP particulate action level, and be placed at breathing zone height.

1.4 NOTIFICATION OF RESULTS

WSP will provide NYSDOH with CAMP monitoring results on a periodic basis during the execution of the work. At a minimum, WSP will submit CAMP monitoring results electronically to NYSDOH on a weekly basis that will include prevailing wind direction, monitoring station locations, and measured concentrations.

2 Action and Response Levels

CAMP specifies action and response levels for VOC and particulate concentrations detected during continuous monitoring. All equipment must be capable of calculating 15 minute running averages. The detailed requirements are described below.

2.1 VOCS

- If ambient VOC concentrations at a downwind perimeter monitor exceeds 5 ppm above background for a 15-minute average, work activities must be temporarily halted and monitoring continued. If the VOC concentrations readily decrease, as demonstrated by instantaneous readings, to below 5 ppm over background, then work activities may resume with continued monitoring.
- If ambient VOC concentrations at a downwind perimeter monitor persist at levels above 5 ppm over background, but below 25 ppm, work activities must be halted, the source of VOCs identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the VOC level 200 feet down wind 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 a 15 minute average.
- If VOC levels exceed 25 ppm at the perimeter of the work area, then activities must be discontinued.

All 15-minute measurements must be recorded and made available for New York State personnel to review, including but not limited to, NYSDEC and NYSDOH. Any instantaneous measurements used for decision purposes should also be recorded.

2.2 PARTICULATE

- If ambient particulate concentrations at a downwind perimeter monitor exceed 100 micrograms per cubic meter ($\mu g/m^3$) above background for a 15-minute average, or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work activities may resume with dust suppression techniques provided that downwind particulate levels do not exceed 150 $\mu g/m^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If after implementation of dust suppression techniques, downwind particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures or other controls adequately reduce downwind particulate concentrations to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration offsite.

All measurements must be recorded and made available for New York State personnel to review, including but not limited to, NYSDEC and NYSDOH.

3 References

New York State Department of Health. 2000. Generic Community Air Monitoring Plan. June.

WSP Engineering of New York, P.C. 2011. Remedial Design Report – Emerson Power Transmission – Operabe Unit No., Ithaca, New York. May 13.

4 Acronyms

CAMP	Community Air Monitoring Plan
EPT	Emerson Power Transmission
µg/m^3	micrograms per cubic meter
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PID	photoionization detector
ppm	parts per million
TCE	trichloroethene
VOC	volatile organic compounds

Figures

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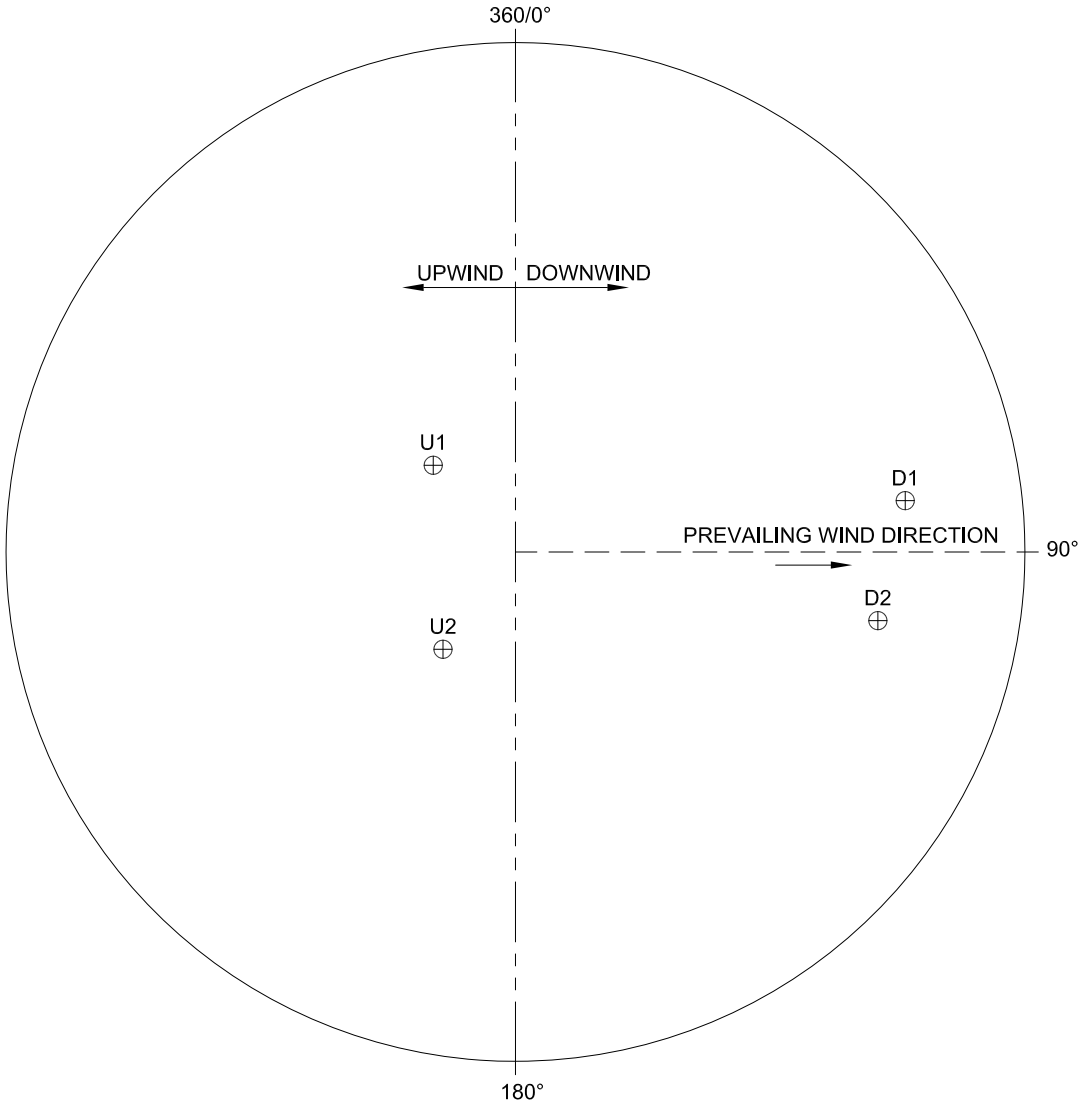
LEGEND

U# UPWIND SAMPLE LOCATION

D# DOWNWIND SAMPLE LOCATION



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WSP Engineering of New York, P.C.

Figure 1

EXAMPLE OF AIR MONITORING LOCATIONS

EMERSON POWER TRANSMISSION
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