

## Appendix E

---

### Community Air Monitoring Plan

## Community Air-Monitoring Plan Williamsburg Former MGP Site

In accordance with NYSDEC and NYSDOH requirements for a CAMP, a perimeter air-monitoring plan will be implemented at the site during each phase of the field activities. The objective of the perimeter air-monitoring plan 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 involved with the site field activities) from potential airborne contaminant releases as a direct result of field activities. The perimeter air-monitoring plan is a stand-alone document and will be available on site. The VOC Monitoring, Response Levels, and Actions are presented as follows.

---

### Air Monitoring Response Levels and Actions

---

#### VOCs

Response Level	Actions
>5 ppm above background for 15-minute average	<ul style="list-style-type: none"> <li>▪ Temporarily halt work activities</li> <li>▪ Continue monitoring</li> <li>▪ If VOC levels decrease (per instantaneous readings) below 5 ppm over background, work activities can resume</li> </ul>
Persistent levels >5 ppm over background <25 ppm	<ul style="list-style-type: none"> <li>▪ Halt work activities</li> <li>▪ Identify source of vapors</li> <li>▪ Corrective action to abate emissions</li> <li>▪ Continue monitoring</li> <li>▪ Resume work activities if VOC levels 200 feet downwind of the property boundary or half the distance to the nearest potential receptor is &lt;5 ppm for a 15-minute average</li> <li>▪ If VOC levels are &gt;25 ppm at the perimeter of the work area, activities must be shutdown</li> </ul>

#### Particulates

Response Level	Actions
>100 mcg/m <sup>3</sup> above background for 15-minute average or visual dust observed leaving the site	<ul style="list-style-type: none"> <li>▪ Apply dust suppression</li> <li>▪ Continue monitoring</li> <li>▪ Continue work if downwind PM-10 particulate levels are &lt;150 mcg/m<sup>3</sup> above upwind levels and no visual dust leaving site</li> </ul>
>150 mcg/m <sup>3</sup> above background for 15-minute average	<ul style="list-style-type: none"> <li>▪ Stop work</li> <li>▪ Re-evaluate activities</li> <li>▪ Continue monitoring</li> <li>▪ Continue work if downwind PM-10 particulate levels are &lt;150 mcg/m<sup>3</sup> above upwind levels and no visual dust leaving site</li> </ul>

#### Sources:

New York State Department of Health Community Air Monitoring Plan, June 20, 2000.  
 New York State Department of Environmental Conservation Technical and Administrative Guidance Memorandum - Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites, October 27, 1989.

---

During excavating and materials handling operations, the air in work areas will also be sampled periodically for the presence of contaminants. A portable PID will be utilized to periodically monitor the levels of organic vapors in the ambient air and a Mini RAM<sup>TM</sup> PM-10 (or equivalent) particle detector will be used to count inhalable particles (0.1-10 micrometer range) of dust during the fieldwork. PID and Mini RAM readings will be taken hourly during excavation or more frequently if air quality measurements approach action levels as defined herein. Measurements will be monitored from the

breathing zone (4 to 5 feet aboveground level) at worker locations to determine working conditions (and whether there is a need to change levels of worker protection).

In addition to VOCs and particulates, cyanide will be monitored in the work zone. The cyanide monitoring methods will be determined prior to mobilization.

In order to make a conservative assessment of when different levels of respiratory protection are needed during the fieldwork, it will be assumed that the organic vapors detected by the air monitoring instruments consist of the most toxic volatile compounds expected to be found on the site. Preliminary evaluation of the risks expected at the site indicates that the most toxic volatiles that are probably present are VOCs (particularly Benzene, Toluene, Ethylbenzene, Xylene [BTEX]). Based on data published by the Occupational Safety and Health Administration (OSHA) and the American Conference of Government Industrial Hygienists (ACGIH), and previous experience with manufactured gas plant (MGP) wastes, the following personal protective equipment (PPE) will be employed when the given concentrations of organic vapor are detected in the breathing zone.

Compound of Concern	Level D	Level C	Level B
Chemical Name	M<X	X<M<Y	M>Y
BTEX and other photoionizable VOCs	M <5 ppm	5 ppm <M <50 ppm	M >50 ppm
Where: M	= concentration of organic vapor measured in the field		
X, Y	= concentrations at which different levels of respiratory protection are necessary.		

The PPE requirements may be modified based on compound-specific monitoring results information, with the written approval of the Corporate Health and Safety Specialist (CHSS).

Respiratory protection from dusts will be required when inhalable particulate concentrations from potentially contaminated sources exceed 150  $\mu\text{g}/\text{m}^3$ .

Odors or dusts derived from site contaminants may cause nausea in some site workers, even though the contaminants are at levels well below the safety limits as defined above. Workers may use dust masks or respirators to mitigate nuisance odors with the approval of the site safety officer (SSO).

Whenever practical, work areas should be positioned upwind of organic vapor and dust sources to reduce the potential for worker exposure.