



455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Ph: (860) 368-5300
Fax: (860) 368-5307

Memorandum

To: Andrew Prophete (National Grid NY)

From: Brian Skelly

Copy to: Richard Dana, R. Scott Deyette (NYSDEC), and Chris Schroer (EA Engineering)
Stephanie Selmer (NYSDOH)
Dave Boram and Thor Helgason (de maximis)
Ted Leissing (National Grid NY)
Shail Pandya (AECOM)
Ronell Marshall (GEI Consultants, Inc.)

Date: March 7, 2012

Regarding: Weekly Community Air Monitoring Report
Clifton Former MGP Site - Operable Unit 2 (OU-2)
February 27, 2012 through March 2, 2012

Dear Andrew:

This report includes a summary of data collected during implementation of the Community Air Monitoring Plan (CAMP) at the Clifton Former MGP Site Operable Unit 2 (OU-2) in Staten Island, New York. Data collected are discussed in relation to remediation activities that occurred between February 27 and March 2, 2012.

There were no fifteen-minute exceedances of the CAMP action levels associated with site activities during this reporting period. Fifteen-minute averages of Total Volatile Organic Compounds (TVOC), odor intensity, and Particulate Matter (PM-10) [dust] data remained at a Site Condition 1. Some elevated dust measurements were noted after work hours or due to diesel exhaust. The tables and figures accompanying this report summarize air monitoring results related to the action levels described by the CAMP Work Plan (AECOM, 2011 and GEI, 2012).

The following information is summarized in this report:

- Site construction activities
- Daily maximum 15-minute average concentrations of TVOC and PM-10 (dust) at each fixed station
- Elevated concentrations (if any)
- Meteorological data

Site Construction Activities

Construction activities during this reporting period included:

- Site wide mobilization in Operable Unit 1 (OU-1) and OU-2
- Site wide Level "A" subsurface investigation
- Temporary fabric structure construction in OU-2
- Clearing, test-pitting, and jack-hammering in OU-2
- Removal of internal components in the warehouse in OU-2
- Wastewater treatment plant construction in OU-1

Data collection

Real-time fixed station monitoring for TVOC and PM₁₀ (dust) was performed on the OU-2 site perimeter at six locations (FAM#1 through FAM#6). FAM#3 was located in the northeast corner of the 40 Willow Avenue Property at during the week.

Table 1 summarizes the target concentrations for action levels and Site Conditions described by the CAMP. Table 2 provides a daily summary of maximum fifteen-minute average ambient air concentrations from each station. Table 3 depicts a more detailed and time-specific comparison of upwind and downwind measurements that is needed to determine the Site Condition.

Upwind and downwind ambient air verification samples were not collected this week since very little ground intrusive activity took place. Ambient air verification sampling will resume the following week. Meteorological data collected at the on-site weather station are included in this report as Figures 1 through 4 which show a directional wind rose for the period, temperature, relative humidity, and wind speed time series for the period.

A short period of elevated concentrations of PM-10 (dust) was recorded at FAM#4 adjacent to Willow Avenue after work hours. A Site Condition 1 remained and dust level measurements returned below the alert and action levels prior to the start of site construction activities.

If you have any questions regarding the information in this report, please contact me.

References

AECOM (2011). Appendix A of CERP Community Air Monitoring Plan (CAMP) Former Manufactured Gas Plant Operable Unit - 2 Remediation. Clifton, New York. August.

GEI Consultants, Inc (2012). Community Air Monitoring Plan: Clifton Former Manufactured Gas Plant Site – Operable Unit 2, Borough of Staten Island, New York. February.

New York State Department of Environmental Conservation (2010). DER-10 / Technical Guidance for Site Remediation and Investigation. Washington: Division of Environmental Remediation, December. Appendix 1-A. May.

Table 1
Action Levels and Site Conditions
Weekly Community Air Monitoring Report
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

	Alert Level	Action Level	Site Condition 1	Site Condition 2	Site Condition 3
TVOC (15-minute)	3.7 ppm	5.0 ppm	< 3.7 ppm	≥ 3.7 ppm, < 5.0 ppm	≥ 5.0 ppm
TVOC (1-minute)	NA	25 ppm	< 25 ppm	NA	≥ 25 ppm
PM-10 (15-minute)	100 ug/m ³	150 ug/m ³	< 100 ug/m ³	≥ 100 ug/m ³ , < 150 ug/m ³	≥ 150 ug/m ³
Odor (15-minute)	Odors / Complaints	NA	No odors	NA	3 (n-butanol)
HCN (15-minute)	Visual Detection	NA	< 0.6 ppm	≥ 0.6 ppm (4-gas meter)	≥ 0.6 ppm (Dräger tube)
Naphthalene (15-minute)	NA	NA	< 440 ug/m ³	≥ 330 ug/m ³ , < 440 ug/m ³	≥ 440 ug/m ³

Notes:

¹ Alert Levels are not established by the NYSDOH or NYSDEC and are internally established concentration levels for total volatile organic compounds. Alert Levels are set below the levels established by the NYSDOH so that actions can be taken prior to exceeding a NYSDOH threshold. An Alert Level serves as a screening tool to trigger contingent measures if necessary, to assist in minimizing off-site transport of contaminants during remedial activities

² Response Levels and Action Levels are not defined in Appendix 1A of the New York State Department of Environmental Conservation *DER-10 / Technical Guidance for Site Investigation and Remediation* (NYSDEC, 2010)

ug/m³ - micrograms per cubic meter

ppmv - parts per million by volume

TVOC - total volatile organic compounds

PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter

HCN - hydrogen cyanide

NA - not applicable

Table 2
 Daily Maximum 15-Minute Average Concentrations of TVOC and PM-10
 Weekly Community Air Monitoring Report
 Clifton Former MGP Site Operable Unit 2
 Borough of Staten Island, New York

Date	TVOC						PM-10					
	(ppm)						(ug/m ³)					
	FAM-1	FAM-2	FAM-3	FAM-4	FAM-5	FAM-6	FAM-1	FAM-2	FAM-3	FAM-4	FAM-5	FAM-6
2/27/2012	0.2	0.1	0.3	0.4	0.0	0.2	73	62	67	58	70	57
2/28/2012	0.1	0.1	0.2	0.1	0.0	0.0	29	52	46	107	34	23
2/29/2012	0.1	0.1	0.1	0.1	0.0	0.1	57	54	56	67	53	104
3/1/2012	0.1	0.1	0.2	0.1	0.0	0.0	75	63	54	56	50	43
3/2/2012	0.1	0.1	0.1	0.2	0.0	0.0	52	28	50	38	23	37

Notes:

FAM - Fixed Air Monitoring station location
 ug/m³ - micrograms per cubic meter
 ppmv - parts per million by volume
 TVOC - total volatile organic compounds
 PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter

Table 3
 Summary of Elevated Concentrations of TVOC and PM-10
 Weekly Community Air Monitoring Report
 Clifton Former MGP Site Operable Unit 2
 Borough of Staten Island, New York

Date	Station	Start Time (H:mm)	End Time (H:mm)	Duration (hrs)	Alert Trigger	Approx. Start Dir*	Approx. End Dir*	Upwind/ Downwind	Upwind Station(s)	15-Minute Downwind- Upwind Conc.		Site Condition	Site Activity During the Period (if applicable)	Actions Taken
										Min**	Max**			
2/28/2012	FAM#4	3:01	3:08	0:07	PM-10	348 : N	311 : NW	Downwind	FAM#6	3	322	1	After hours, no activity	Continued monitoring
2/29/2012	FAM#6	7:18	7:20	0:02	PM-10	24 : NE	127 : SE	Upwind	NA	NA	NA	1	Diesel exhaust from excavator parked next to the station	Continued monitoring

Notes:

* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).

** Upwind minus downwind concentrations are a time-specific comparison.

FAM - Fixed Air Monitoring station location

ug/m³ - micrograms per cubic meter

ppmv - parts per million by volume

TVOC - total volatile organic compounds

PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter

NA - not applicable

ND - no data available

Figures 1-4
Meteorological Data
Weekly Community Air Monitoring Report
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

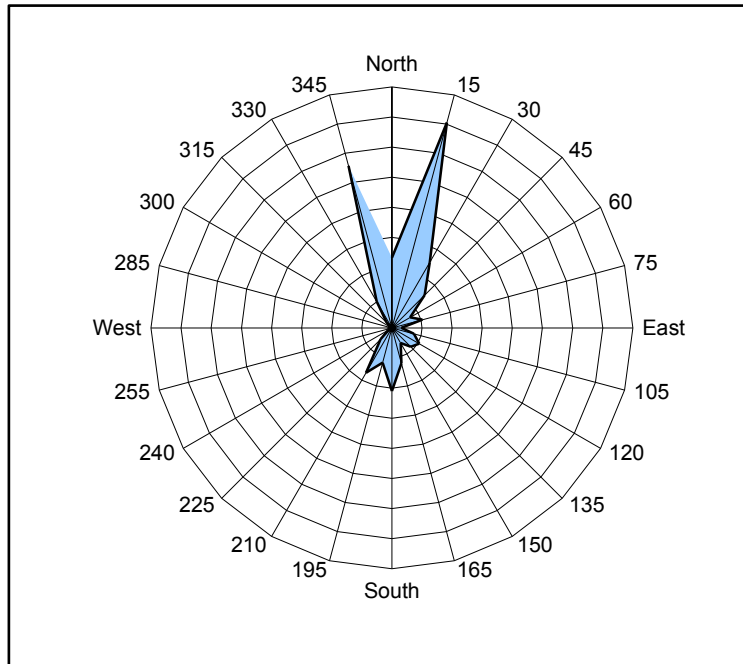


Figure 1. Wind rose for the period 02/27/12 through 03/02/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Wind direction data used to create the wind rose were calculated from 15-minute averages.

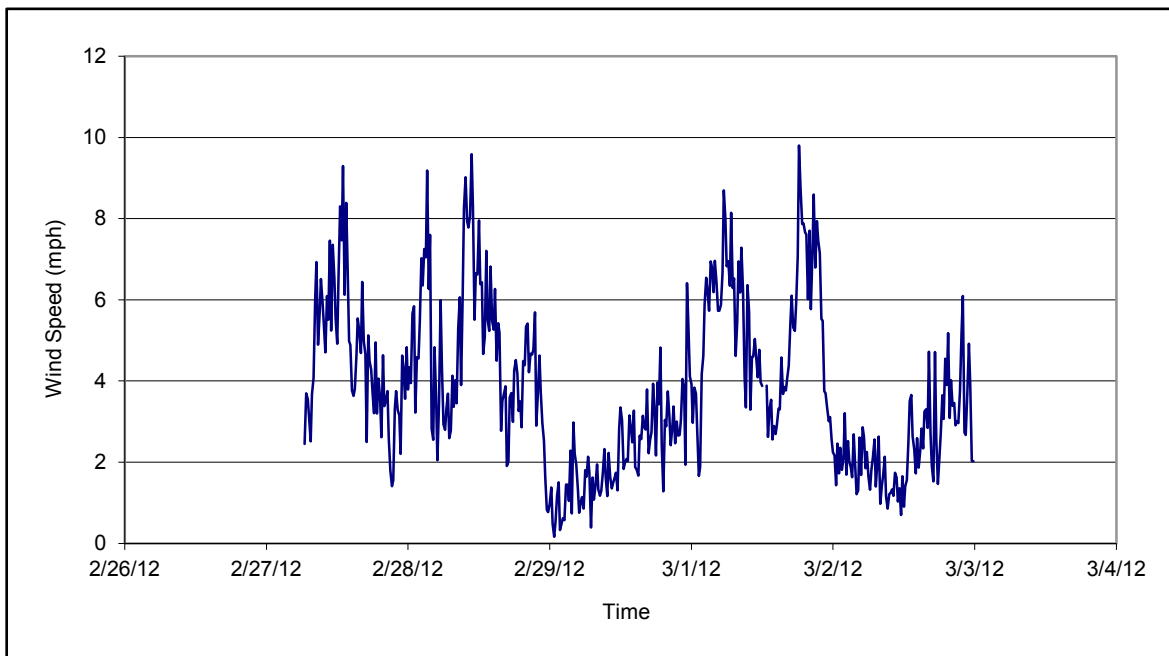


Figure 2. Wind speed for the period 02/27/12 through 03/02/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

Figures 1-4
Meteorological Data
Weekly Community Air Monitoring Report
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

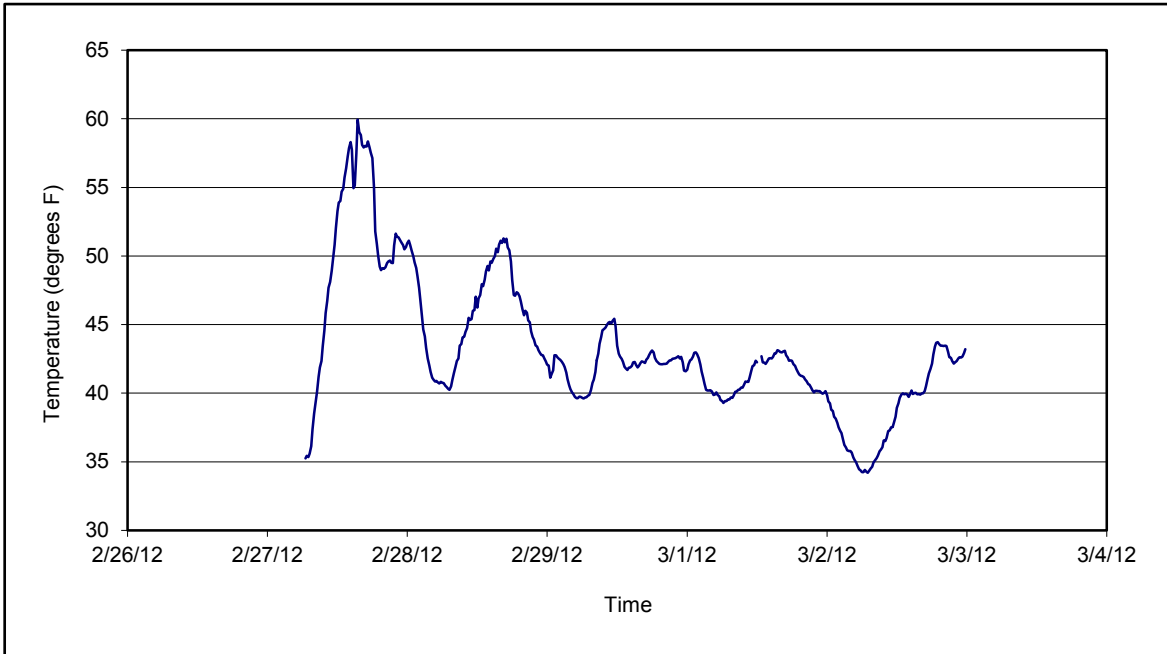


Figure 3. Temperature for the period 02/27/12 through 03/02/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

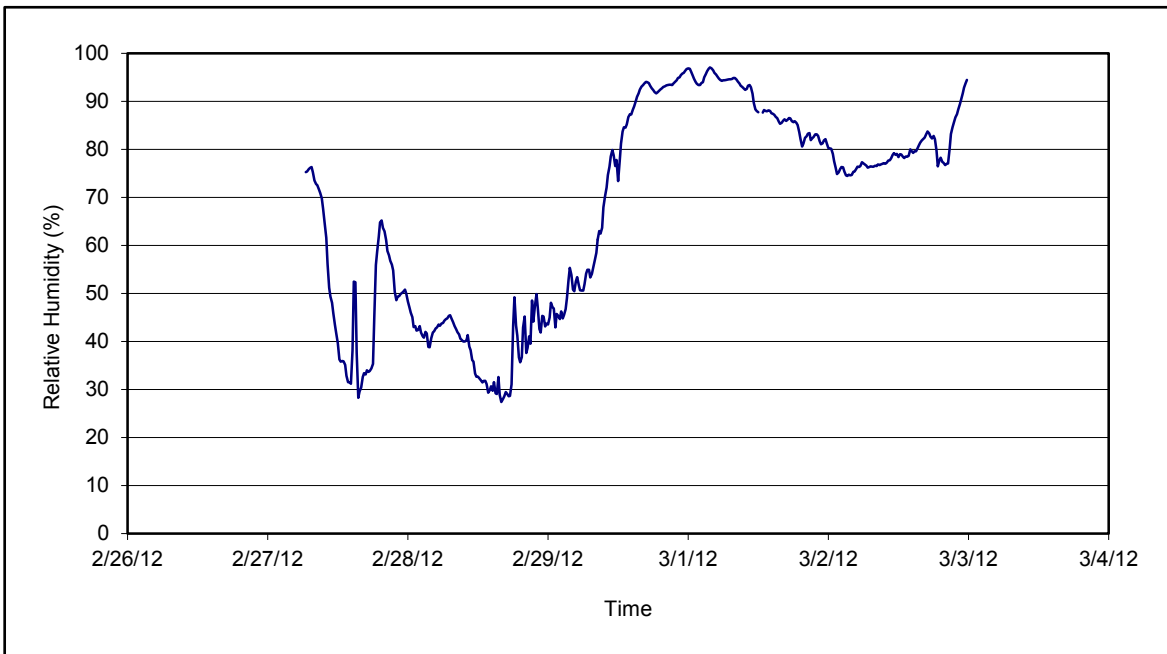


Figure 4. Relative humidity for the period 02/27/12 through 03/02/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.