

## Memorandum

To: Andrew Prophete (National Grid NY)

From: Brian Skelly

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

Date: August 21, 2012

Regarding: Weekly Community Air Monitoring Report  
Clifton Former MGP Site - Operable Unit 2 (OU-2)  
August 4, 2012 through August 10, 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 August 4, 2012 and August 10, 2012.

There were no fifteen-minute exceedances of the Total Volatile Organic Compounds (TVOC), Particulate Matter (PM-10) [dust], or odor action levels associated with ground intrusive site activities during this reporting period. 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:

- Excavated in Temporary Fabric Structure (TFS)
- Backfilled in TFS
- Completed backfilling of TFS area 2
- Deconned delivery dump trucks
- Deconned load out dump trucks
- Installed gravel road near decon pad
- Installed TIGG unit
- Leveled terrain using Sweepster attachment
- Load out soil from site via tarped dumptrucks
- Operated odor and dust suppressant systems
- Received delivery of clean backfill, gravel, equipment, and materials
- Relocated frac tank, TFS, and TIGG unit
- Secured perimeter of TFS with jersey blocks
- Surveyed site near decon pad
- Tarped dump trucks
- Transported jersey blocks around TFS
- Surveyed around OU-2
- Surveyed inside TFS
- Transported clean soil into TFS

### **Data collection**

Real-time fixed station monitoring for TVOC and PM-10 (dust) was performed on the OU-2 site perimeter at six locations (FAM#1 through FAM#6). Four AirLogics Classic stations equipped with gas chromatographs (GCs) were operated at FAM#2, FAM#3, FAM#4, and FAM#5 and two AirLogics Light stations were operated at FAM#1 and FAM#6.

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. The daily reports appended to this report depict more detailed and time-specific comparison of upwind and downwind measurements and site activities that is needed to determine the Site Condition.

Upwind and downwind ambient air verification samples were collected on August 8, 2012. 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 and temperature, relative humidity, and wind speed time series for the period.

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

Weekly Community Air Monitoring Report  
Clifton Former MGP Site Operable Unit 2 (OU-2)  
August 4, 2012 through August 10, 2012  
August 21, 2012  
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## **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  
Community Air Monitoring Program  
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 <sup>3</sup>	150 ug/m <sup>3</sup>	< 100 ug/m <sup>3</sup>	≥ 100 ug/m <sup>3</sup> , < 150 ug/m <sup>3</sup>	≥ 150 ug/m <sup>3</sup>
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 (Draeger tube)
Naphthalene (15-minute)	NA	NA	< 440 ug/m <sup>3</sup>	≥ 330 ug/m <sup>3</sup> , < 440 ug/m <sup>3</sup>	≥ 440 ug/m <sup>3</sup>

**Notes:**

<sup>1</sup> 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

<sup>2</sup> 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/m<sup>3</sup> - 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  
 Community Air Monitoring Program  
 Clifton Former MGP Site Operable Unit 2  
 Borough of Staten Island, New York

Date	TVOC						PM-10					
	(ppm)						(ug/m <sup>3</sup> )					
	FAM#1	FAM#2	FAM#3	FAM#4	FAM#5	FAM#6	FAM#1	FAM#2	FAM#3	FAM#4	FAM#5	FAM#6
8/4/2012	0.1	0.3	1.0	1.0	0.1	0.1	64	25	1	11	46	35
8/5/2012	0.1	0.1	0.1	0.1	0.1	0.1	49	129	1	3	47	81
8/6/2012	0.1	0.1	0.1	0.5	0.1	0.2	51	35	0	8	49	40
8/7/2012	0.1	0.1	0.2	0.4	0.1	0.1	36	40	0	1	45	39
8/8/2012	0.1	0.2	0.1	0.0	0.1	0.1	64	36	1	19	47	76
8/9/2012	0.1	0.0	0.1	0.3	0.0	0.1	74	38	3	12	91	44
8/10/2012	0.2	0.0	0.1	0.0	0.0	0.1	58	41	2	12	28	41
Average	0.1	0.1	0.2	0.3	0.1	0.1	57	49	1	9	50	51
Maximum	0.2	0.3	1.0	1.0	0.1	0.2	74	129	3	19	91	81

**Notes:**

FAM - fixed air monitoring station location

ug/m<sup>3</sup> - 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

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

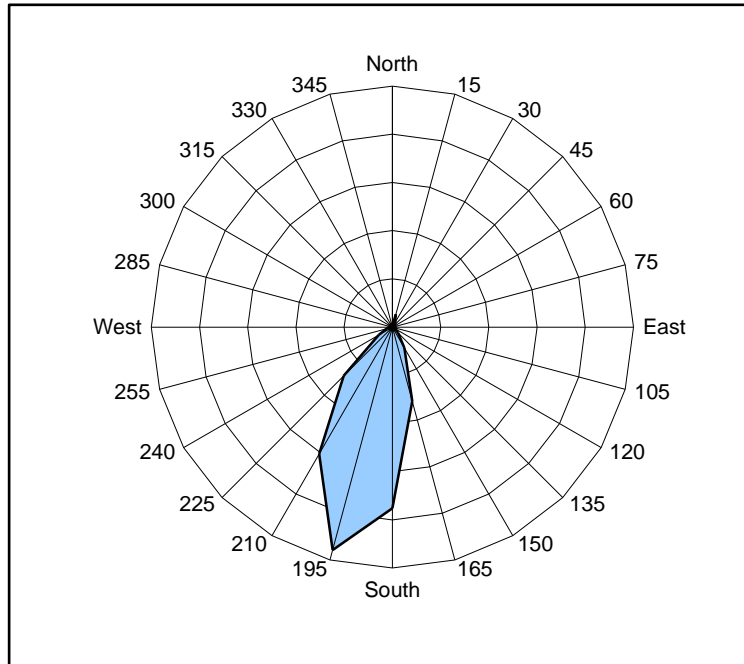


Figure 1. Wind rose for the period 08/04/12 through 08/10/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Wind direction data used to create the wind rose were calculated from 1-minute data.

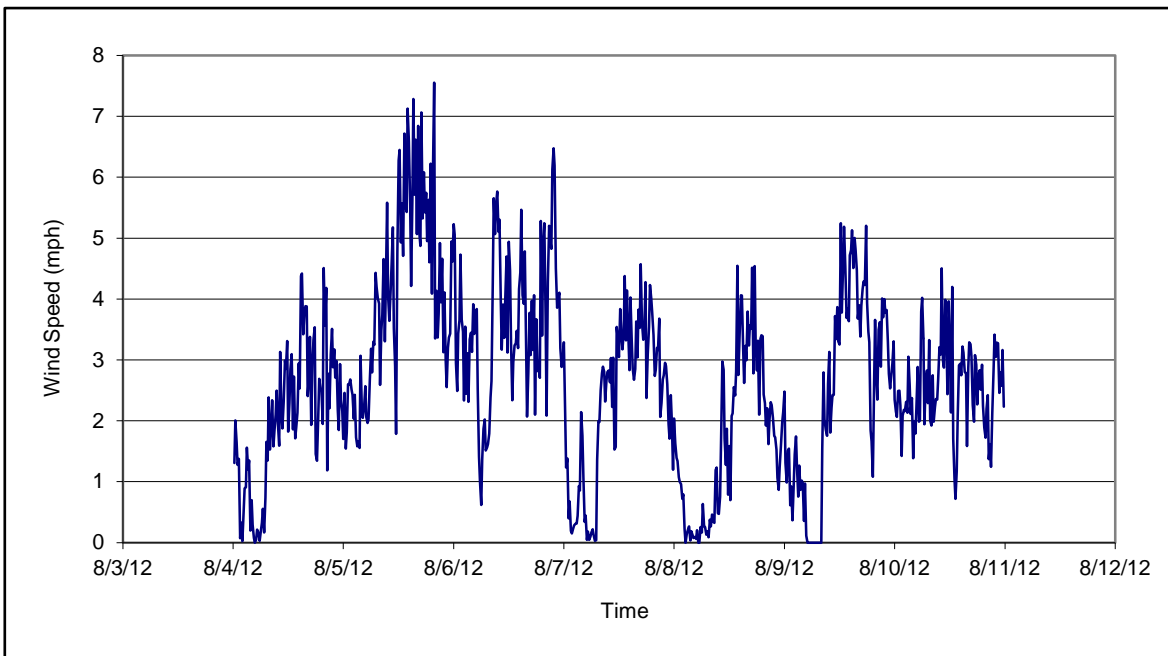


Figure 2. Wind speed for the period 08/04/12 through 08/10/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

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

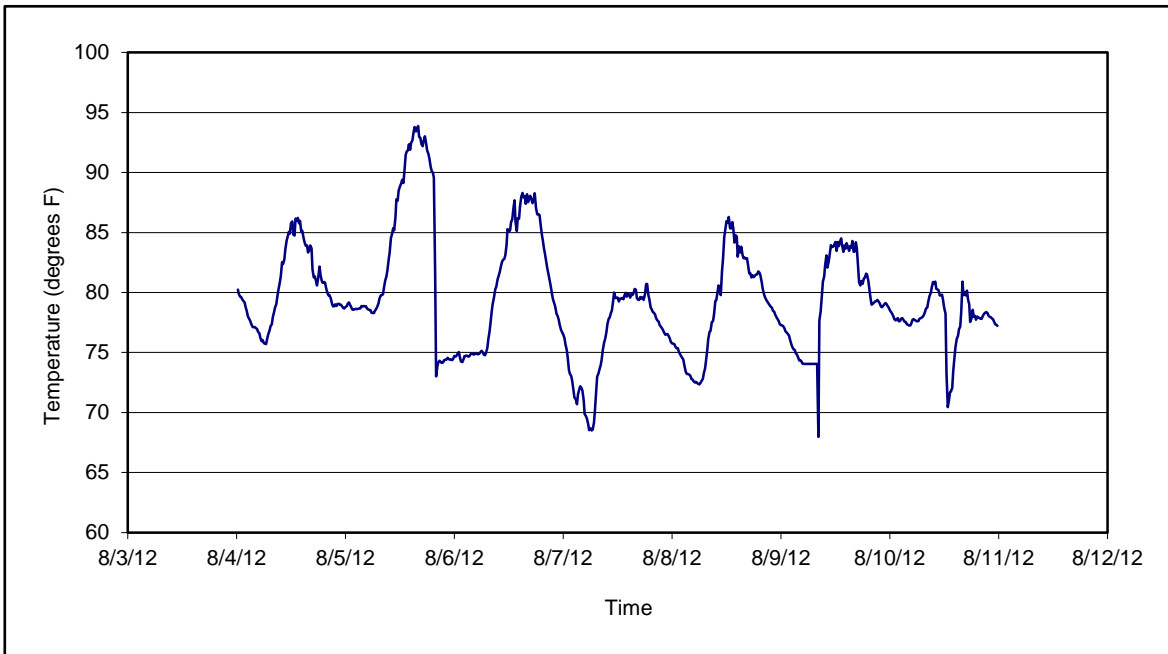


Figure 3. Temperature for the period 08/04/12 through 08/10/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

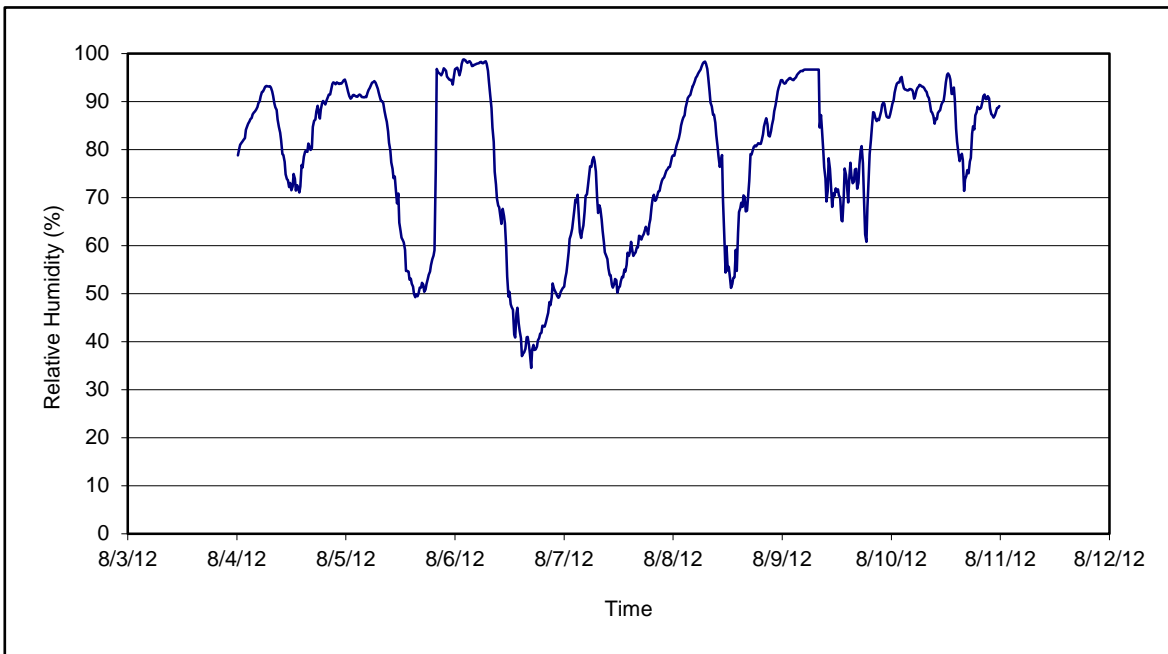


Figure 4. Relative humidity for the period 08/04/12 through 08/10/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.







**Daily Field Report**  
**Community Air Monitoring Program**  
**Clifton Former MGP Site Operable Unit 2**  
**Borough of Staten Island, New York**

<b>System Operations</b>					<b>General Observations</b>							
Sampling Date	8/8/2012				<b>General Weather Conditions:</b> Sun & Clouds -84°F  <b>General Description of Site Activities:</b> Health & Safety Meeting Continuous Air Monitoring Decconned load out dump trucks Load out soil from site via tarped dumptrucks Transported clean backfill into TFS Backfilled in TFS  Decconned dump trucks Received delivery of clean backfill Operated odor and dust suppressant systems Tarped dump trucks							
System Start Time	continuous											
System Stop Time	continuous											
Total Hrs Monitored	24											
System Calibrations (Time/Status)	Ok 0922-1123											

Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration		Site Condition	Site Activity During the Period (if applicable)	Actions Taken
									Min**	Max**			
8/8/2012	No exceedances												

**Comments:**

	<b>PM-10 (15-min)</b>	<b>TVOC (15-min)</b>	<b>TVOC (1-min)</b>	<b>Odor Intensity (15-min)</b>
Alert Limit:	100 ug/m <sup>3</sup>	3.7 ppm	-	-
Action Limit:	150 ug/m <sup>3</sup>	5.0 ppm	25 ppm	3 (n-butanol scale)

**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/m<sup>3</sup> - micrograms per cubic meter  
 ppmv - parts per million by volume

PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter  
 TVOC - total volatile organic compounds  
 NA - not applicable  
 ND - no data available

Field Representative: S. Ou  
 Date: 8/8/2012



**Daily Field Report**  
**Community Air Monitoring Program**  
**Clifton Former MGP Site Operable Unit 2**  
**Borough of Staten Island, New York**

<b>System Operations</b>						<b>General Observations</b>								
Sampling Date		8/9/2012		<b>General Weather Conditions:</b> Clear - ~74°F - ~84°F  <b>General Description of Site Activities:</b> Health & Safety Meeting   Received delivery of gravel Continuous Air Monitoring   Received delivery of clean backfill Relocated Temporary Fabric Structure (TFS)                                    Operated odor and dust suppressant systems Secured perimeter of TFS with jersey blocks                                  Decconned delivery dump trucks Transported jersey blocks around TFS Leveling terrain using Sweepster attachment										
System Start Time		continuous												
System Stop Time		continuous												
Total Hrs Monitored		24												
System Calibrations (Time/Status)		Ok 0922-1123												
Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration Min**     Max**		Site Condition	Site Activity During the Period (if applicable)	Actions Taken	
8/9/2012	No exceedances												None taken	
<b>Comments:</b>														
					<b>PM-10 (15-min)</b>			<b>TVOC (15-min)</b>			<b>TVOC (1-min)</b>			<b>Odor Intensity (15-min)</b>
					Alert Limit:	100 ug/m <sup>3</sup>		3.7 ppm			-			-
					Action Limit:	150 ug/m <sup>3</sup>		5.0 ppm			25 ppm			3 (n-butanol scale)
<b>Notes:</b>														
* 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.						PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter TVOC - total volatile organic compounds NA - not applicable ND - no data available						Field Representative: R. Marshall Date: 8/9/2012		
FAM - Fixed Air Monitoring station location ug/m <sup>3</sup> - micrograms per cubic meter ppmv - parts per million by volume														



Daily Field Report  
Community Air Monitoring Program  
Clifton Former MGP Site Operable Unit 2  
Borough of Staten Island, New York

System Operations					General Observations							
Sampling Date	8/10/2012				General Weather Conditions: Clear - cloudy w/rain - ~74°F - ~80°F  General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Completed backfilling of TFS area 2 Relocated frac tank Relocated Tig unit Leveling terrain using Sweepster attachment  Received delivery of gravel Installed Tig unit Operated odor and dust suppressant systems Decconned delivery dump trucks							
System Start Time	continuous											
System Stop Time	continuous											
Total Hrs Monitored	24											
System Calibrations (Time/Status)	Ok 0740-0920											

Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration		Site Condition	Site Activity During the Period (if applicable)	Actions Taken
									Min**	Max**			
8/10/2012	No exceedances												None taken

**Comments:**

	<b>PM-10 (15-min)</b>	<b>TVOC (15-min)</b>	<b>TVOC (1-min)</b>	<b>Odor Intensity (15-min)</b>
Alert Limit:	100 ug/m <sup>3</sup>	3.7 ppm	-	-
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Field Representative: R. Marshall  
 Date: 8/10/2012

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