

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: January 8, 2013

Regarding: Weekly Community Air Monitoring Report
Clifton Former MGP Site - Operable Unit 2 (OU-2)
December 29, 2012 through January 4, 2013

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 December 29, 2012 and January 4, 2013

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:

- Backfilled in Temporary Fabric Structure (TFS)
- Relocated TFS
- Tarped dump trucks
- Deconned dump trucks
- Installed plywood sound barriers along Willow Avenue
- Leveled terrain along south of TFS
- Loaded out clean backfill east of TFS
- Loaded out soil from TFS
- Moved deadmans across OU-2 in prep for TFS move
- Moved deadmans across OU-2 to secure TFS after the move.
- Prepared TFS for move
- Received delivery of clean backfill
- Received delivery of gravel
- Relocated decon pad
- Relocated frac tanks
- Relocated jersey blocks

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.

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.

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 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 (Draeger 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
 Community Air Monitoring Program
 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
12/29/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12/30/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12/31/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/1/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/2/2013	0.1	0.1	0.2	0.1	0.1	0.0	19	12	2	6	13	11
1/3/2013	0.1	0.1	0.3	0.1	0.1	0.1	27	24	12	18	29	45
1/4/2013	0.3	0.1	0.2	0.1	0.1	0.1	29	23	12	16	28	38
Average	0.2	0.1	0.2	0.1	0.1	0.1	25	20	9	13	23	31
Maximum	0.3	0.1	0.3	0.1	0.1	0.1	29	24	12	18	29	45

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

N/A - no site activity/CAMP due to holiday

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

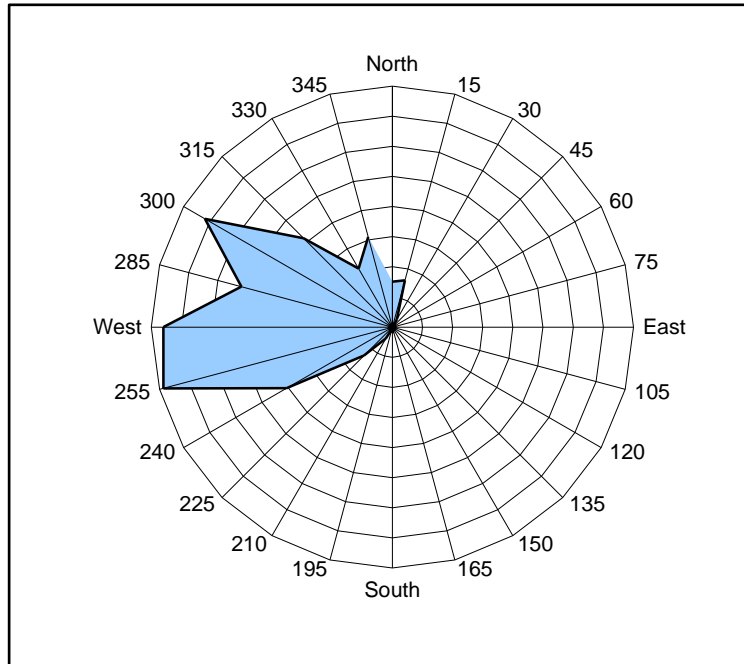


Figure 1. Wind rose for the period 12/29/12 through 01/04/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Wind direction data used to create the wind rose were calculated from 1-minute data.

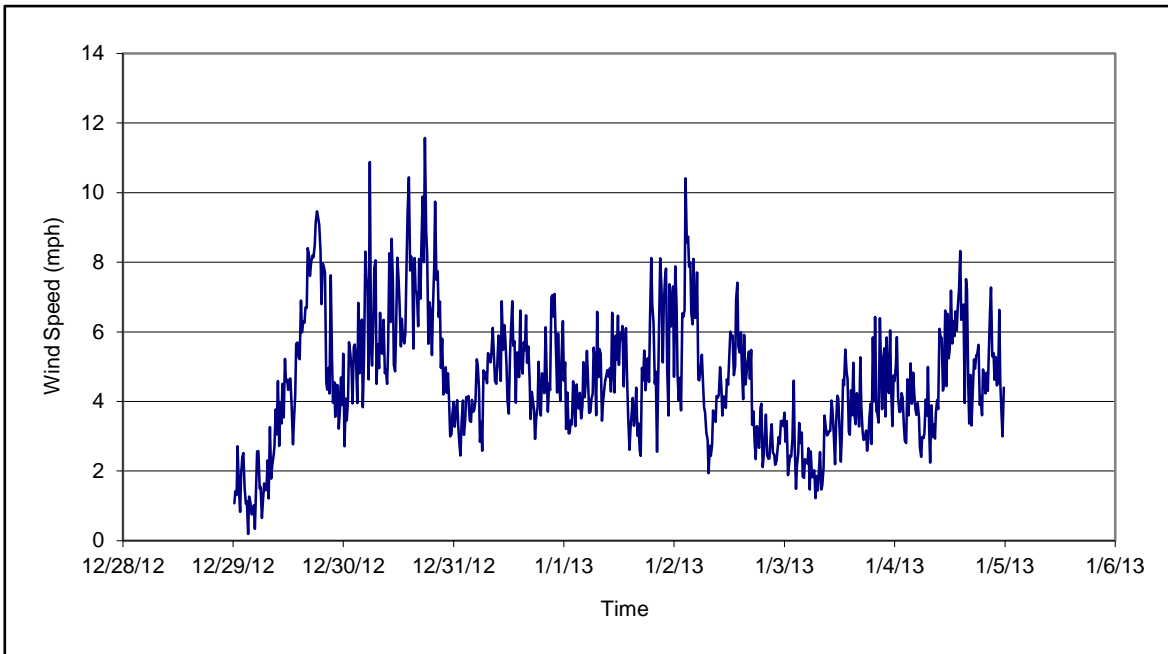


Figure 2. Wind speed for the period 12/29/12 through 01/04/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

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

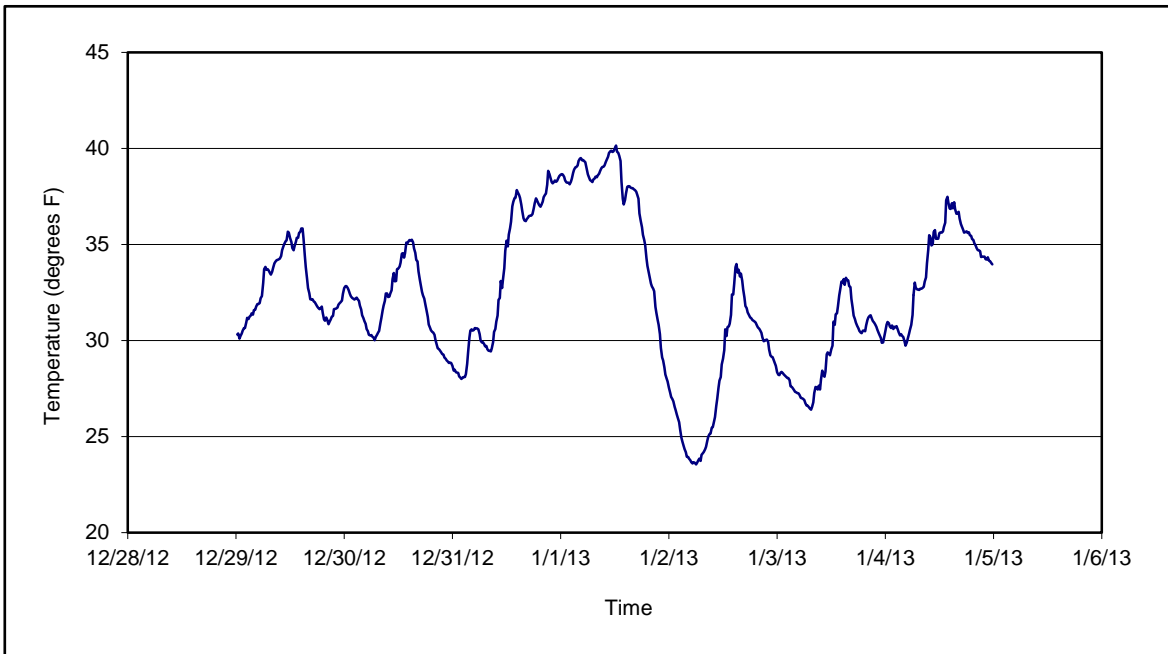


Figure 3. Temperature for the period 12/29/12 through 01/04/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

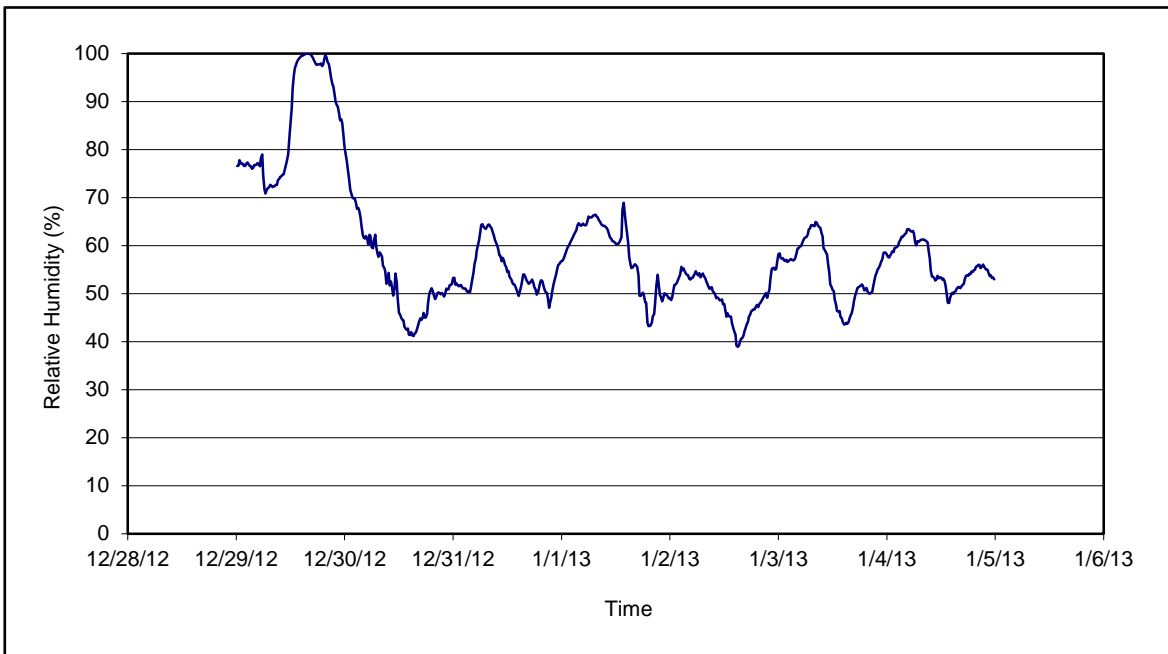


Figure 4. Relative humidity for the period 12/29/12 through 01/04/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

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

System Operations					General Observations								
Sampling Date		1/2/2013			General Weather Conditions:								
System Start Time		continuous			Clear- ~ 24°F - ~30°F								
System Stop Time		continuous			General Description of Site Activities:								
Total Hrs Monitored		24			Health & Safety Meeting Continuous Air Monitoring Backfilled in Temporary Fabric Structure (TFS) Decommed dump trucks Loaded out soil from TFS Tarpdump trucks								
System Calibrations (Time/Status)		Ok 0821-1118			Relocated frac tanks Leveled terrain along North of TFS								
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
01/02/13	No exceedances												None taken
Comments:													
					PM-10 (15-min)		TVOC (15-min)		TVOC (1-min)		Odor Intensity (15-min)		
					Alert Limit:	100 ug/m ³	3.7 ppm	-	-				
					Action Limit:	150 ug/m ³	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).					PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter								
** Upwind minus downwind concentrations are a time specific comparison.					TVOC - total volatile organic compounds								
FAM - Fixed Air Monitoring station location					NA - not applicable								
ug/m ³ - micrograms per cubic meter					ND - no data available								
ppmv - parts per million by volume					Field Representative: R.Marshall								
					Date: 1/2/2013								



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		1/3/2013		General Weather Conditions: Clear- ~ 26°F - -31°F										
System Start Time		continuous		General Description of Site Activities: Health & Safety Meeting Relocated decon pad Relocated jersey blocks Continuous Air Monitoring Leveled terrain along south of TFS Backfilled in Temporary Fabric Structure (TFS) Received delivery of gravel Prepared TFS for move Received delivery of clean backfill Moved Deadmans across OU-2 in prep for TFS move Load out of Clean backfill south of TFS Installed plywood sound barriers along Willow Ave.										
System Stop Time		continuous												
Total Hrs Monitored		24												
System Calibrations (Time/Status)		Ok 0646-0802												
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	
01/03/13	No Exceedences												Non Taken	
Comments:														
					PM-10 (15-min)			TVOC (15-min)			TVOC (1-min)			Odor Intensity (15-min)
					Alert Limit:	100 ug/m ³		3.7 ppm			-			-
					Action Limit:	150 ug/m ³		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).					PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter									
** Upwind minus downwind concentrations are a time specific comparison.					TVOC - total volatile organic compounds									
FAM - Fixed Air Monitoring station location					NA - not applicable									
ug/m ³ - micrograms per cubic meter					ND - no data available									
ppmv - parts per million by volume										Field Representative: Cjohn				
										Date: 1/3/2013				



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	1/4/2013				General Weather Conditions: Clear- - 32°F - -36°F									
System Start Time	continuous				General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Relocated Jersey Blocks to set up new location for deconpad Received delivery of clean backfill Loaded out clean backfill east of TFS Relocated Temporary Fabric Structure (TFS) South 50ft Secured TFS after the move. Moved Deadmans across OU-2 to secure TFS after the move. Installed plywood sound barriers along Willow Ave.									
System Stop Time	continuous													
Total Hrs Monitored	24													
System Calibrations (Time/Status)	Ok 0820-1011													
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	
01/04/13	No Exceedences												Non Taken	
Comments:														
Alert Limit:			PM-10 (15-min)			TVOC (15-min)			TVOC (1-min)			Odor Intensity (15-min)		
Action Limit:			100 ug/m ³			3.7 ppm			-			-		
			150 ug/m ³			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 ³ - 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: Cjohn		
												Date: 1/4/2013		

