

455 Winding Brook Drive Suite 201 Glastonbury, CT 06033

Fax: (860) 368-5307

Ph: (860) 368-5300

## 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: June 19, 2012

Regarding: Weekly Community Air Monitoring Report

Clifton Former MGP Site - Operable Unit 2 (OU-2)

June 9, 2012 through June 15, 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 June 9 and June 15, 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. There were some elevated levels of dust measured that were attributed to batch plant operations, and onsite vehicular traffic. 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

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## **Site Construction Activities**

Construction activities during this reporting period included:

- Deconned dump trucks for soil load out
- Demolition of one-story building
- Excavated along Bay St.
- Excavated along Willow Avenue for buttress wall installation
- Load out demolished scrap metal from site via construction vehicle
- Load out soil from site via tarped dump trucks
- Loaded demolished waste into roll off dumpster
- Mixed slurry at batch plant in OU-2
- Mixed soil inside the Temporary Fabric Structure (TFS) with kiln-dust
- Operated mist odor suppressant along Willow Avenue
- Removed demolition debris from site via construction vehicle
- Stockpiled clean soil on North side of TFS
- Surveyed site on Willow Avenue
- Transported soil from excavation operations along Willow Avenue to the TFS via dump trucks

### **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). FAM#3 was located in the northeast corner of the 40 Willow Avenue Property during the week. Due to work progressing along Willow Avenue, FAM#4 was temporarily relocated on Operable Unit 1 along Willow Avenue west of the wastewater treatment plant near the brick buildings. 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 June 13, 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.

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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/m³, < 150 ug/m³	≥ 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/m³, < 440 ug/m³	≥ 440 ug/m <sup>3</sup>

#### Notes:

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



<sup>&</sup>lt;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>&</sup>lt;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)

## 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

			TV	ос			PM-10						
Date			(pp	om)			(ug/m³)						
	FAM#1	FAM#2	FAM#3	FAM#4	FAM#5	FAM#6	FAM#1	FAM#2	FAM#3	FAM#4	FAM#5	FAM#6	
6/9/2012	0.1	0.2	ND	0.1	0.1	0.1	44	17	4	0	2	37	
6/10/2012	0.1	0.1	ND	0.0	0.7	0.2	66	28	6	9	7	66	
6/11/2012	0.0	0.1	0.2	0.2	0.1	0.1	78	22	3	8	2	75	
6/12/2012	0.1	0.1	0.0	0.5	0.0	0.1	87	44	3	1	0	51	
6/13/2012	0.1	0.2	0.2	0.3	0.2	0.1	32	18	37	14	4	87	
6/14/2012	0.2	0.8	0.7	0.6 <sup>(a)</sup>	0.4	0.1	52	22	11	7	4	76	
6/15/2012	0.5	0.2	3.4	ND <sup>(a)</sup>	1.0	0.2	73	26	6	13	6	120	
Average	0.1	0.2	0.9	0.2	0.4	0.1	62	25	10	7	4	73	
Maximum	0.5	0.8	3.4	0.5	1.0	0.2	87	44	37	14	7	120	

#### 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



<sup>(</sup>a) Due to an equipment malfunction, no TVOC data were recorded @ FAM#4 from 10:26 on 6/14/2012 through 6:14 on 6/15/2012.

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

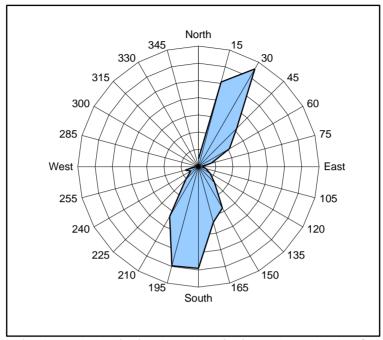


Figure 1. Wind rose for the period 04/07/12 through 04/13/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Wind direction data used to create the wind rose were calculated from 1-minute data.

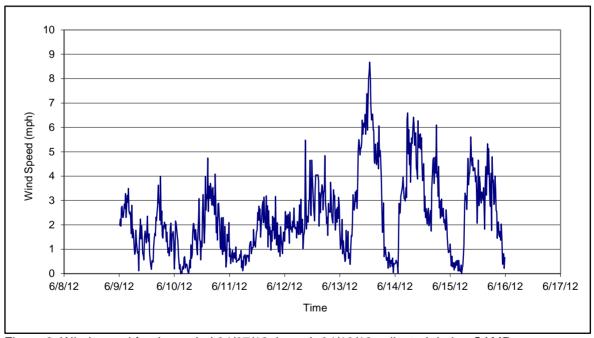


Figure 2. Wind speed for the period 04/07/12 through 04/13/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

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

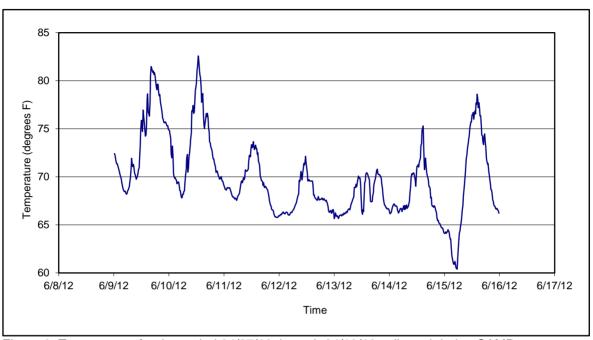


Figure 3. Temperature for the period 04/07/12 through 04/13/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.



Figure 4. Relative humidity for the period 04/07/12 through 04/13/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

											General Observations		
	Sa	mpling Date	6/11/	/2012	General We	eather Co	onditions:						
	Systen	m Start Time	conti	nuous	Clear- ~6	8°F- ~71	°F						
	Syster	m Stop Time	conti	nuous									
	Total Hr	rs Monitored	2	24			of Site Activities:						
					Health &	Safety M	leeting						
		Calibrations		)k	Continuo						arped dumptrucks		
(Time/Status) 0715-0937 Operated hoe-ram at Willow Avenue excavation Demolition of or													
	Mixed slurry at batch plant in OU-2 Surveyed site on Willow Avenue												
								ess wall installation			orary Fabric Structure (TI		
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					# of					-Minute			
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mments:													
						PM-10	(15-min)	TVOC (15-mi	in)	T	/OC (1-min)	Odor Intensity (15-min)	
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	ncroarams	per cubic me	etet.						ND - no da	a avaliable		Field Representative:	R. Marshall
-	-	llion by volun										Date:	6/11/2012



	Syste	m Operation	ıs								General Observations					
		mpling Date	6/12/	/2012	General W	eather C	onditions:									
	Syster	n Start Time	contir	nuous	Overcats	w/rain-	~67°F- ~72°F									
		n Stop Time		nuous												
	Total Hr	s Monitored	2	24	General De	scription	of Site Activities:									
					Health &			Stockpiled clean soil								
	System	Calibrations	C	)k	Continuo			Deconned load out dump trucks								
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6/15/2012	PM-10	FAM#6	15:46	15:59	4	SSE	DW	FAM#4	106	106	2	Onsite vehicular traffic	Notified construction manager Water was sprayed			
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		nitoring statio			•	·			NA - not app	licable	•					

FAM - Fixed Air Monitoring station location ug/m³ - micrograms per cubic meter ppmv - parts per million by volume NA - not applicable ND - no data available

Field Representative: Date: C. John 6/15/2012

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