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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: April 29, 2013

Regarding: Weekly Community Air Monitoring Report
Clifton Former MGP Site - Operable Unit 2 (OU-2)
April 18, 2013 and April 19, 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 April 18, 2013 to April 19, 2013. During the week, air monitoring was completed using mobile tripod-mounted CAMP stations equipped with a photo-ionization detector (PID) to measure total volatile organic compounds (TVOCs), and particulate matter (PM-10) [dust]. The mobile station was positioned downwind of intrusive activities. CAMP activities were completed on April 19, 2013.

There were no fifteen-minute exceedances of the TVOCs, PM-10 [dust], or odor action levels associated with ground intrusive site activities during this reporting period. The tables 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)

Site Construction Activities

Construction activities during this reporting period included:

- Installed dense non-aqueous phase liquid (DNAPL) recovery wells
- Disassembled waste water treatment plant at OU-1
- Installed of concrete well pads
- Demobilized Airlogics' equipment offsite
- Received delivery of gravel and clean fill
- Received delivery of equipment
- Developed newly installed DNAPL recovery wells

Data collection

TVOC and PM-10 [dust] monitoring was performed downwind of intrusive activities completed between April 18 and April 19, 2013. Upwind (background) concentrations were monitored at the beginning of the day (UW-1) prior to the start of intrusive activities. One (1) mobile CAMP unit (DW-1) was positioned downwind of DNAPL recovery well drill rig during well installation activities.

On April 19, 2013, intrusive activities at OU-2 were completed and CAMP monitoring was discontinued at the end of the day.

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 April 19, 2013.

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

Weekly Community Air Monitoring Report
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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 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)					
	DW1						DW1					
4/18/2013	0.2						12					
4/19/2013	0.0						19					
Average	0.1						16					
Maximum	0.2						19					

Notes:

DW-Mobile Tripod CAMP stations (DW1 located downwind of drill rig 1)
 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

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 4/18/2013 System Start Time 7:10 System Stop Time 12:52 Total Hrs. Monitored 24 System Calibrations Ok (Time/Status) 0700-0708					General Weather Conditions: Overcast - ~ 52°F - ~65°F General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring-with mobile tripod units Installed NAPL recovery well Installed concrete well pads Disassembled Waste Water Treatment Plant (WWTP) at OU1 Grouted newly installed wells Developed wells Received deliveries of soil Loaded Airlogics' stations offsite								
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
4/18/13	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: 4/18/2013			



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						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). ** 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: R. Marshall Date: 4/19/2013	