

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: September 18, 2012

Regarding: Weekly Community Air Monitoring Report
Clifton Former MGP Site - Operable Unit 2 (OU-2)
September 8, 2012 through September 14, 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 September 8, 2012 and September 14, 2012.

There were no fifteen-minute exceedances of the Particulate Matter (PM-10) [dust] or odor action levels associated with ground intrusive site activities during this reporting period. There was one fifteen-minute period of Total Volatile Organic Compounds (TVOC) exceedances caused by intrusive work in a trench northwest of the temporary fabric structure. The construction manager was notified and intrusive work in the trench was halted while the bottom of the trench was tarped and foam was sprayed. Levels of TVOC dropped below the action and alert levels within fifteen minutes and work proceeded. 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)
- Completed relocation of TFS
- Deconned dump trucks
- Loaded concrete waste into dump trucks
- Loaded out concrete waste off site
- Loaded out contaminated soil from TFS off site
- Operated hoe-ram on foundation of one-story building
- Operated odor suppressant systems
- Operated street sweeper on Willow Avenue
- Received deliveries of clean soil
- Relocated TFS
- Stockpiled clean backfill

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 September 12, 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)
September 8, 2012 through September 14, 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 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
9/8/2012	0.1	0.0	0.0	0.2	0.1	0.2	44	9	3	2	12	0
9/9/2012	0.0	0.0	0.1	0.0	0.1	0.1	26	6	3	0	1	0
9/10/2012	0.1	0.1	0.1	0.1	0.1	0.2	16	8	3	6	15	0
9/11/2012	0.1	0.2	0.1	0.1	0.3	0.3	19	8	3	10	25	1
9/12/2012	0.4	0.2	0.2	0.2	0.3	1.8	35	15	9	28	36	67
9/13/2012	0.3	0.2	0.2	0.3	0.2	8.0	34	7	2	1	7	22
9/14/2012	0.1	0.2	0.4	0.3	0.3	0.4	21	6	2	0	5	13
Average	0.1	0.1	0.2	0.2	0.2	1.6	28	8	4	7	14	15
Maximum	0.4	0.2	0.4	0.3	0.3	8.0	44	15	9	28	36	67

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

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: 9/12/2012 System Start Time: continuous System Stop Time: continuous Total Hrs Monitored: 24 System Calibrations (Time/Status): Ok 0625-0749	General Weather Conditions: Clear - ~ 59°F - ~78°F General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Stockpiled clean soil Excavated in Temporary Fabric Structure (TFS) Operated odor suppressant systems Decconned dump trucks Transported clean soil into TFS via West door Loaded out impacted soil off site via dump trucks Received deliveries of clean backfill Operated hoe-ram on foundation of former one-story building Excavated outside near West side of TFS Tarped dump trucks Stockpiled concrete waste Delivery of Clean Backfill

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**			
9/12/2012	No exceedances												

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).
 ** 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

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: 9/12/2012



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: 9/13/2012 System Start Time: continuous System Stop Time: continuous Total Hrs Monitored: 24 System Calibrations (Time/Status): Ok 0735-0925	General Weather Conditions: Clear - ~ 63°F - ~76°F General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Stockpiled clean soil Deconned dump trucks Transported clean soil into TFS via West door Received deliveries of clean backfill Operated hoe-ran on foundation of former one-story building Excavated outside near West side of TFS Tarped dump trucks Stockpiled concrete waste

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**			
9/13/2012	TVOC	FAM#6	10:58	11:11	14	S	DW	FAM#4	5.6	8.0	3	Intrusive work in trench NW of TFS	The construction manager was notified and intrusive work in the trench was halted while the bottom of the trench was tarped and foam was applied

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)

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PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter
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NA - not applicable
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Field Representative: C. John
 Date: 9/13/2012



