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Memorandum

To: Andrew Prophete (National Grid NY)

From: Brian Skelly

Copy to: Richard Dana and R. Scott Deyette (NYSDEC)
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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 17, 2012

Regarding: Weekly Community Air Monitoring Report
Clifton Former MGP Site - Operable Unit 2 (OU-2)
September 1, 2012 through September 7, 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 1, 2012 and September 7, 2012.

There were no fifteen-minute exceedances of the Total Volatile Organic Compounds (TVOC) or odor action levels associated with ground intrusive site activities during this reporting period. There were fifteen-minute exceedances for Particulate Matter (PM-10) [dust]. The elevated levels were caused by stockpiling clean backfill in near the former one-story building area. The construction manager was notified, water was sprayed, and the levels dropped below the action and alert levels. 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 5, 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 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
9/1/2012	0.1	0.1	0.1	0.0	0.1	0.1	66	192	4	8	46	0
9/2/2012	0.1	0.0	0.1	ND*	0.1	0.0	63	16	3	8	14	0
9/3/2012	0.0	0.1	0.1	ND*	0.1	0.0	26	12	4	29	7	1
9/4/2012	0.1	0.1	0.1	0.1	0.1	0.1	137	7	13	18	17	3
9/5/2012	0.1	0.0	1.0	0.1	0.1	0.1	58	10	3	17	20	0
9/6/2012	0.1	0.1	0.1	0.1	0.1	0.1	27	6	3	9	15	28
9/7/2012	0.2	0.1	0.1	0.2	0.2	0.4	57	17	3	30	61	106
Average	0.1	0.1	0.2	0.1	0.1	0.1	62	37	5	17	26	20
Maximum	0.2	0.1	1.0	0.2	0.2	0.4	137	192	13	30	61	106

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

Due to equipment malfunction there is no recordable data for PM-10 @ FAM#4 on 9/2/12 or 9/3/12.

Figures 1-4
Meteorological Data
Weekly Community Air Monitoring Report
Clifton Former MGP Site Operable Unit 2
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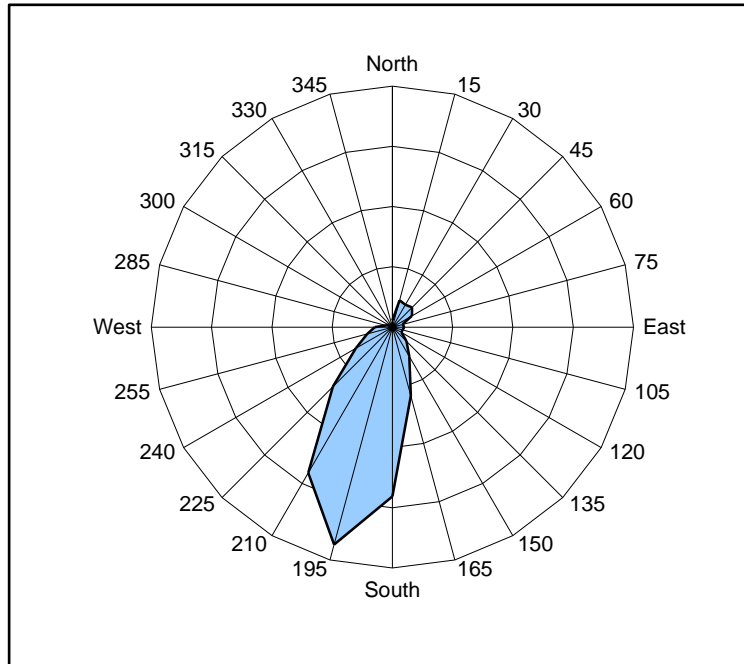


Figure 1. Wind rose for the period 09/01/12 through 09/07/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Wind direction data used to create the wind rose were calculated from 1-minute data.

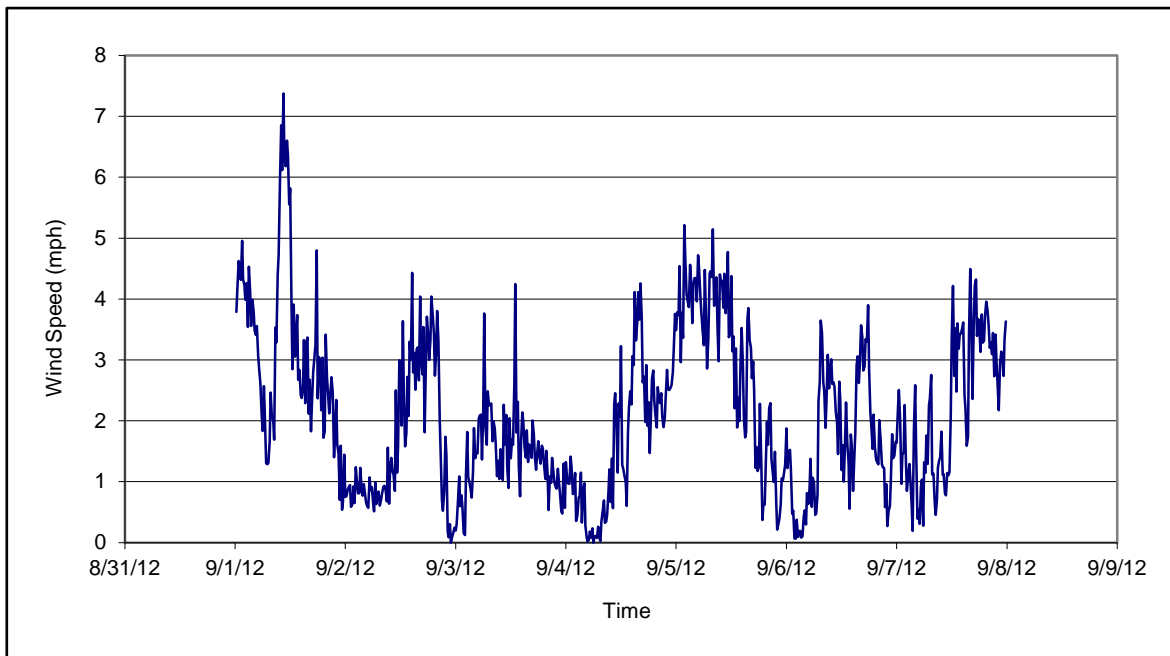


Figure 2. Wind speed for the period 09/01/12 through 09/07/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

Figures 1-4
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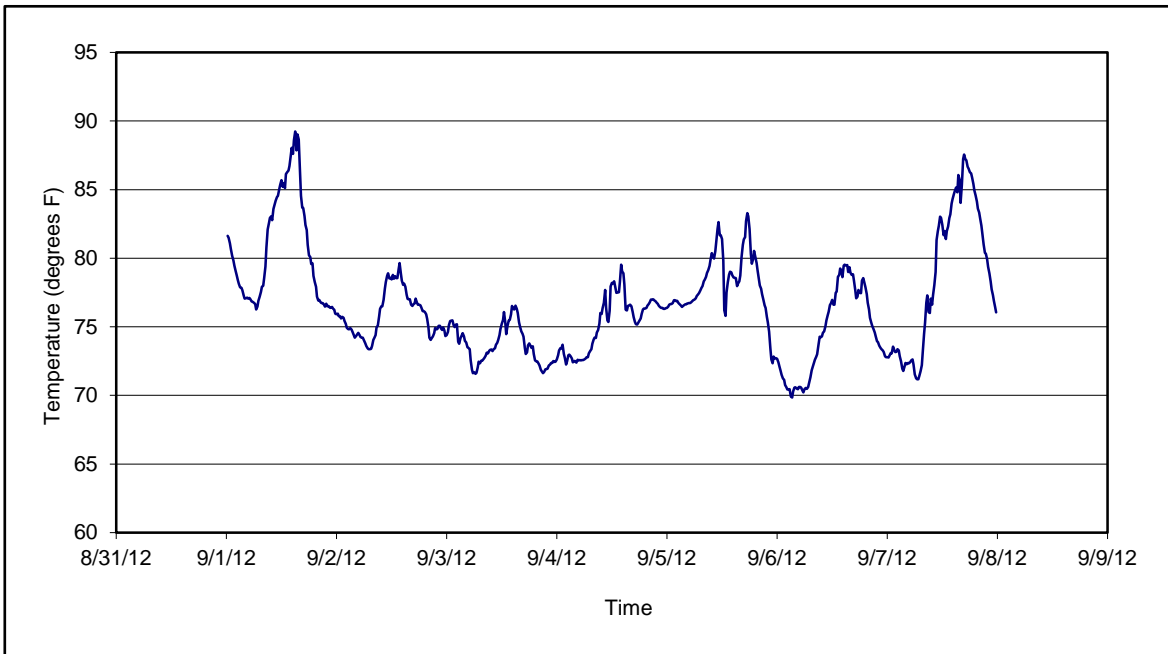


Figure 3. Temperature for the period 09/01/12 through 09/07/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

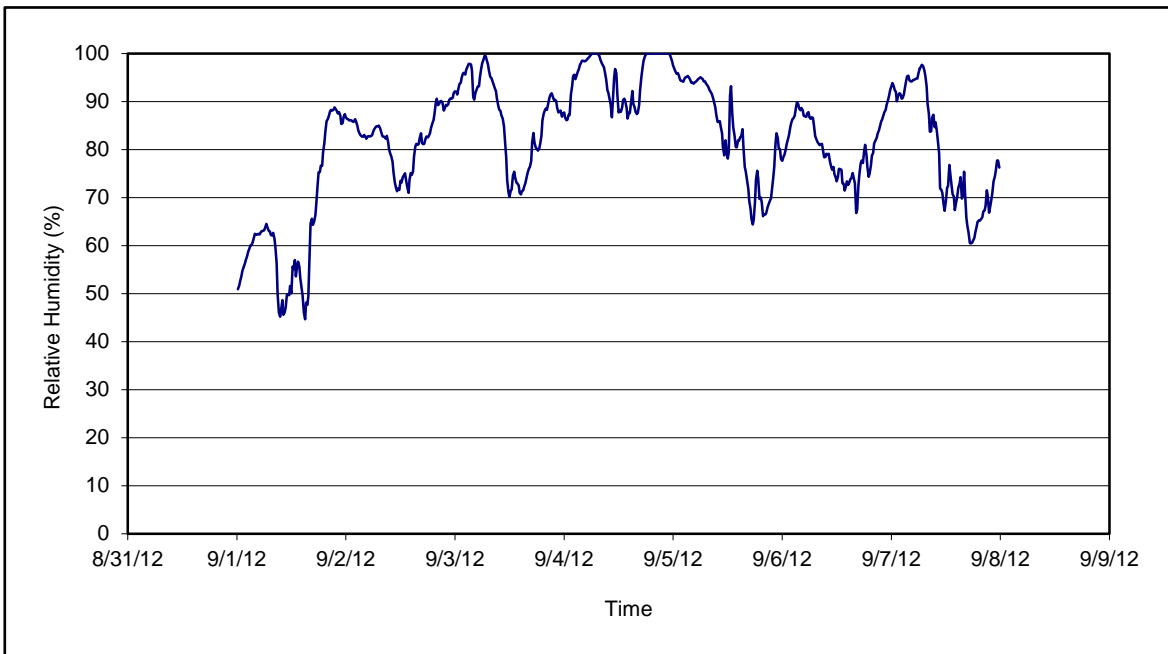


Figure 4. Relative humidity for the period 09/01/12 through 09/07/12 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

