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May 13, 2009

Mr. David Ellis  
Department of Environmental Protection  
Southeast Regional Office  
20 Riverside Drive  
Lakeville, Massachusetts 02347

Subject: Summary of Landfill Gas Sampling Results  
Nantucket Landfill – October 2008

Dear Mr. Ellis:

On May 4, 2009 personnel from Camp Dresser & McKee Inc. (CDM) conducted environmental monitoring at the Nantucket Landfill. The environmental monitoring included field screening for landfill gas. The environmental sampling was conducted in accordance with the approved Environmental Monitoring Plan, prepared by SECOR International Inc. in July 1999 and in conformance with the Solid Waste Management Regulations (310 CMR 19.132).

As part of the closure construction at the landfill, the environmental monitoring network was expanded by the addition of seventeen landfill gas wells (LGW-1 through LGW-17). See the site plan for locations of the landfill gas monitoring locations.

Landfill gas wells were screened in the field for the following parameters:

- Hydrogen Sulfide (H<sub>2</sub>S);
- Methane (CH<sub>4</sub>)
- Lower Explosive Limit (LEL);
- Carbon Dioxide (CO<sub>2</sub>);
- Oxygen (O<sub>2</sub>) and
- Volatile Organics (VOCs).

## Evaluation of Results

Landfill gas wells were screened for the parameters indicated previously in this report. Prior to purging the wells, initial readings were taken at each location. Following recording of the

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initial readings, approximately 10 minutes was allowed for purging before final readings were recorded.

Methane was not detected in any of the perimeter wells. Methane was detected in wells LGW-15 through LGW-17 at concentrations ranging from 428% to 1344% of the LEL. Wells LGW-15 through LGW-17 are located between Phase I and Phase 2A of the landfill. These wells are most likely located in waste or immediately adjacent to waste. LGW-1, LGW-10 and LGW-11 are located between the landfill and property line/buildings. Methane was not detected in these wells, indicating landfill gas migration is not currently violating solid waste regulations.

Landfill gas has intermittently been detected in well LGW-8. Landfill was not detected in this well during the May sampling round. Sampling of nearby utilities and inside the adjacent building was not warranted. CDM also did not conduct the probe which is used to determine the extent of migration near LGW-8.

Carbon dioxide was detected in most well locations at concentrations ranging from 0.1 to 30.1 percent. Hydrogen sulfide was not detected in any sampling locations. VOCs were not detected in any sampling locations. Sampling locations are shown on the attached plan and complete sampling results are summarized in Table 1.

The next quarterly landfill gas screening is scheduled for August 2009.

Please do not hesitate to call me at (617) 452-6659 if you have any questions or require additional information.

Very truly yours,

A handwritten signature in blue ink that reads "Vincent M. Recchia".

Vincent M. Recchia, P.E.  
Camp Dresser & McKee Inc.

Attachments

cc: Jeff Willet, Nantucket  
Tracy Sundell, Nantucket  
Whitney Hall, Waste Options

TABLE 5  
 NANTUCKET LANDFILL  
 NANTUCKET, MASSACHUSETTS  
 GAS WELL MONITORING - MAY 2009

Gas Well No.	Type	Date	OVM (ppm)		H <sub>2</sub> S (ppm)		CH <sub>4</sub> (%)		%LEL		CO <sub>2</sub> (%)		O <sub>2</sub>	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
LGW-1	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.4	19.2	19.0
LGW-2	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	2.1	19.0	18.9
LGW-3	Well	5/4/2009	0.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	20.5	19.9
LGW-4	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	20.1	20.2
LGW-5	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8	20.5
LGW-6	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	10.6	9.8	9.6
LGW-7	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.6	15.8	15.1
LGW-8	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8	20.9
LGW-9	Well	5/4/2009	0.0	0.0	0.0	0.0	1.0	0.0	20.0	0.0	3.2	0.1	16.3	20.7
LGW-10	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	19.9	19.9
LGW-11	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.5	20.6
LGW-12	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.2	19.7	19.5
LGW-13	Well	5/4/2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	20.0	20.3
LGW-14	Well	5/4/2009	0.0	0.0	0.0	0.0	59.8	59.8	1196.0	1196.0	30.9	30.1	0.0	0.0
LGW-15	Well	5/4/2009	0.0	0.0	0.0	0.0	68.1	67.2	1362.0	1344.0	28.4	28.3	0.7	0.0
LGW-16	Well	5/4/2009	6.0	7.1	0.0	0.0	60.3	59.6	1206.0	1192.0	4.4	4.3	0.0	0.0
LGW-17	Well	5/4/2009	0.0	0.0	0.0	0.0	64.3	65.0	1286.0	1300.0	28.4	28.5	0.3	0.0
PROBE	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
STORAGE ROOM	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
STOCK PILE ROOM	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FIRE PUMP ROOM	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FIRE PUMP ROOM DRAIN	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
LUNCH ROOM	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MEN'S ROOM	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MEN'S ROOM DRAIN	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MEN'S ROOM SINK	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WOMEN'S ROOM	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WOMEN'S ROOM DRAIN	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WOMEN'S ROOM SINK	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OUTSIDE FIRE HYDRANT	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OUTSIDE ELECTRICAL BOX	Well	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

NS - Not Sampled

Notes:

1. Wells and probes were purged for approximately 10 minutes before final readings were recorded.
2. Methane measured with combustible gas indicator.