

**SCS ENGINEERS**

June 19, 2009

File No. 02199312.02-2

Ms. Jackie Drummond  
NCDENR  
Division of Waste Management  
Solid Waste Section  
1646 Mail Service Center  
Raleigh, North Carolina 27699-1646

Subject: Notification of Methane Exceedances at Landfill Gas Monitoring Probes  
North Wake County Landfill – Raleigh, North Carolina

Dear Ms. Drummond:

On behalf of Wake County (the County), SCS Engineers, PC (SCS) is submitting this letter to notify NCDENR of methane exceedances detected at perimeter landfill gas (LFG) monitoring probes M-3 and M-16 at the North Wake County Landfill (Permit No. 92-09, the Landfill). Under 15A NCAC 13B Section .1626(4)(c), the County must:

- i. Immediately take all necessary steps to ensure protection of human health and notify NCDENR; and
- ii. Place in the operating record the methane gas levels recorded within seven days of a detected exceedance, and a description of the steps taken to protect human health.

During the Second Quarter 2009 routine monitoring event performed on June 15, 2009, involving the perimeter LFG monitoring probes at the Landfill, probes M-3 and M-16 exhibited methane concentrations greater than the regulatory compliance threshold of 5.0 percent, which is equivalent to the lower explosive limit (LEL) for methane. LFG probe monitoring results are attached in Exhibit 1. Probe M-3 is located on the north side of the closed, unlined cell and M-16 is located on the south side of the closed, lined cell.

SCS has notified the County and the LFG control system operator, Wake Gas Producers (WGP) of these exceedances at the perimeter monitoring probes. As depicted in Exhibit 1, no detectable methane was recorded in any monitored structure during this most recent event. WGP will implement operational adjustments to the LFG control system in these areas and continue to monitor the adjacent extraction components and perimeter probes. SCS will continue to coordinate with Wake County to monitor the active LFG control system performance and will likely perform a verification monitoring event at the impacted perimeter LFG probes within the next week or so.

As required by 15A NCAC 13B Section .1626(4)(c)(iii), the Facility has implemented a LFG Remediation Plan, most recently updated on July 12, 2007. In accordance with the Plan, the frequency for monitoring LFG probes exhibiting non-compliant methane concentrations will be monthly until such time that the probes have demonstrated compliant



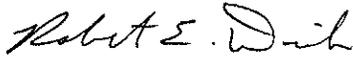
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concentrations for three consecutive months. Thus, routine monitoring is scheduled to be conducted by SCS at these two probes on a monthly basis beginning in July 2009.

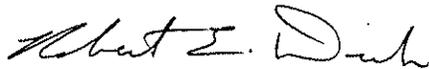
The referenced regulations also require completing an update to this plan, within 60 days of the initial exceedance, to consist of a description of proposed remedies to correct the exceedances. The proposed approach for corrective action is to perform an inspection of the existing LFG control system components to identify whether problems or malfunctions exist (and to accomplish repairs as necessary) and to implement operational adjustments to increase the LFG system effectiveness in controlling subsurface LFG migrations in the areas of concern. If additional remediation efforts are warranted based on continued monitoring results, the County will submit the documentation necessary to update the existing LFG Remediation Plan to NCDENR within 60 days of the initial exceedances.

If you have questions or comments regarding the County's notification, please feel free to contact Johnny Beal of Wake County at (919) 856-5634 or Bob Dick at (804) 598-9480.

Sincerely,



for D. Brandon King  
Staff Scientist



Robert E. Dick, PE  
Project Director  
SCS ENGINEERS, PC

cc: Johnny Beal – Wake County  
Lee Squires – Wake County

**EXHIBIT 1. LANDFILL GAS MONITORING PROBES  
NORTH WAKE LANDFILL - WAKE COUNTY, NORTH CAROLINA**

Date: June 15, 2009  
 Project No: 02199312.02-2  
 Weather: Cloudy, 75°F

Personnel: DBK  
 Equipment: GEM-2000, Gas-Trac

Monitoring Probe No.	Time (24-hr)	Methane (% vol)	Carbon Dioxide (% vol)	Oxygen (% vol)	Balance Gas (% vol)	Pressure (in-wc)	Interior Monitoring Location	Methane (% vol)
M 1	15:47	0	0.1	19.7	80.19	0	<b>Scale House</b>	ND
M 2	15:54	0	0.1	19.8	80.1	0	Front Office	ND
M 3	15:59	29.1	23.8	7.3	39.8	0	Bathrooms (2)	ND
M 4	16:29	0	3.2	17.6	79.2	0	Hallway	ND
M 5	16:51	0	10.3	10.3	79.39	-1.7	Kitchen	ND
M 6R	17:01	0.1	7.1	8.4	84.4	0	<b>Admin. Offices</b>	ND
M 7	15:23	0	0	19.5	80.5	0	Offices (4)	ND
M 8	15:27	0	0	19.5	80.5	0	Reception Area	ND
M 9	15:36	0	0	19.7	80.3	0	Bathrooms (2)	ND
M 10	17:19	0	9.6	9.9	80.5	0	Conference Area	ND
M 11	18:08	0	2.6	16.3	81.1	0.1	Kitchen	ND
M 12	17:26	0	1	18.7	80.3	0	Storage Area	ND
M 13	17:32	0	0	19.9	80.1	0	<b>Drop Off/Transfer</b>	ND
M 14	17:39	0	4.6	15.9	79.5	0.1	Office	ND
M 15	17:44	0	4.7	15.1	80.2	0.1	Service Bay	ND
M 16	17:51	7.7	15.2	2.5	74.6	0.1	<b>Maintenance Shop</b>	ND
M 17	17:57	0.5	2.1	16.6	80.8	0	Service Bay	ND
M 18	18:02	0	1.5	18	80.5	0		
M 19R	14:59	0	2.8	17.4	79.79	0		
M 20	15:04	0	0	19.4	80.6	0		
M 21	15:12	0	0	19.5	80.5	-0.1		
M 22	15:18	0	0	19.4	80.6	-0.1		
M 23	15:31	0.1	0.2	19.4	80.3	0		
M 24	15:40	0	0	19.8	80.19	-0.1		
M 25	17:05	0	2.3	17.4	80.29	0		
M 26	17:11	0	1.3	18.3	80.39	0		

Notes: ND = No Detection; Samples below 0.1% (1000 ppm) methane