Countywide Recycling & Disposal Facility
Division of Republic Waste Services of Ohio
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April 23, 2007

Ohio Environmental Protection Agency, Central Office
Division of Solid and Infectious Waste Management
Attn: Mr. Ed Gortner
PO Box 1049
Columbus, Ohio 43216-1049

RE: WRITTEN DEMONSTRATION FOR GAS WELLS WITH OXYGEN EXCEEDANCES
INITIAL EXCEEDANCE PERIOD APRIL 9-11, 2007
ORDER 4.B.2, DIRECTOR'S FINAL FINDINGS AND ORDERS OF MARCH 28, 2007
COUNTYWIDE RECYCLING AND DISPOSAL FACILITY

Dear Mr. Gortner:

Between April 9 and April 11, 2007, one landfill gas landfill gas (LFG) extraction well had an initial exceedance over 1.5%. This well is in addition to the seven wells in which a written demonstration request was submitted to your attention on April 16, 2006. Therefore, Countywide hereby submits this written demonstration for landfill gas extraction well exceedances as required by Order 4.B.2, which states:

> *"If corrective measures undertaken by Respondent fail to lower the oxygen levels within the gas extraction well to 1.5% oxygen by volume, Respondent shall submit a written demonstration to Ohio EPA not later than 14 days after Respondent's initial discovery of the landfill gas extraction well exceedance which explains why a given landfill gas extraction well or wells cannot meet the 1.5% oxygen by volume target goal. The demonstration shall further document in detail all of the corrective measures undertaken by Respondent to achieve the 1.5% by volume level since the exceedance. Respondent's written demonstration may further request an alternative oxygen concentration."*

The one LFG well identified during this time period is noted in Table 1, below.

Table 1
LFG Wells with Greater than 1.5% Oxygen During the Week of April 1, 2007
For Which Written Demonstration is Required

Well ID	Date of Initial Exceedance	Initial Oxygen Content	Last Oxygen Content As Of April 21, 2007
PW-A1R	4/9/2007	17.4%	16.6%

Required corrective actions were taken as described in Table 2, however this LFG well is still exhibiting oxygen concentrations above 1.5% by volume.

Table 2
Corrective Actions Taken During the Week of April 9, 2007
and Reason Mandated Oxygen Content Not Achieved

Well ID	Corrective Actions Taken	*Reason 1.5%* Level Not Achieved
PW-A1R	Nominal vacuum adjustment, assessed well integrity and made repairs as appropriate, performed repairs on leachate pump installed in this LFG well	*Well watered-in*. Need additional time to allow leachate pump to dewater well and expose perforations

A complete historical record of the corrective actions taken by Countywide for this LFG well is provided in Attachment A. Chronological listing of oxygen content readings taken on this LFG well is provided in Attachment B.

Countywide proposes a timeline to correct the oxygen exceedance at this LFG well as shown in Table 3.

Table 3
Proposed Timeline to Achieve 1.5% Oxygen Content

Well ID	Requested Timeline for Correction
PW-A1R	May 9 (30 days from initial exceedance) to allow the leachate pump to dewater well and expose perforations

Countywide does not believe that the source of oxygen for this LFG well is a result of over pull, nor is the oxygen being introduced into the waste mass. Instead we believe the air is vapor-locked in the top of this well or is from shallow air intrusion.

Please note that if Countywide is not able to achieve the required 1.5% oxygen concentration as a result of additional investigation and corrective actions within the timelines requested in Table 3, Countywide may request higher operating parameters for this LFG well, if necessary. In addition Countywide will continue to monitor these LFG wells as required and continue working to achieve 1.5% or less oxygen concentration for these LFG wells.

Please feel free to call me should you have any questions.

Tim Vandersall, P.E.
General Manager

Attachments:

Attachment A - Well Assessment and Repair Logs
Attachment B – Chronological Oxygen Content Readings

cc: Bill Skowronski, OEPA-NEDO
Kirk Norris, SCHD
Dan Aleman, CHD
Todd Hamilton, CWRDF
Kyle Nay, Cornerstone
Mike Michels, Cornerstone
Mike Contestabile, Cornerstone
Jason Perdion, B&H
Jim Walsh, SCS Engineers

Attachment A
Historical Record of Corrective Actions

American Environmental Group Ltd.

Landfill Gas Collection and Control System Repair Documentation Report

this form documents corrective actions taken to achieve less than 1.5% O2 in vertical landfill gas well locations for:

Republic Services of Ohio II, LLC. dba Countywide Recycling and Disposal Facility

Order 4, 4A and 4B

American Environmental Group Ltd.

PRIORITY RESPONSE TO > 1.5% O2 LFG WELL READING

Initial Discovery

Well Identification: PW-AIR

☐ ***Date:*** 4/9/07 ***Time:*** 15:08 ***of initial discovery of > 1.5% oxygen***

Technician: Josh Nepsa 17.4 % **O2 non-compliant reading**

Possible issue(s): Pump Not operational

Yes	No	N/A	
☑	☐	☐	Nominal vacuum adjustments "appropriate and reasonable reductions in vacuum"

Complete within 1-day of initial discovery

Date: 4/12/07 ***of AEGL O&M Well Integrity Assessment (below)***

Technician: Josh Nepsa

Yes	No	N/A		Yes	No	N/A	
☑	☐	☐	Is well labeled?	☑	☐	☐	Is well lateral / header in good condition?
☑	☐	☐	Is well head remote?	☐	☑	☐	Is lateral or header line surging?
☑	☐	☐	Is well hard piped?	☐	☑	☐	Is the well surging?
☑	☐	☐	Are all sample ports in good condition?				
☐	☑	☐	Are all flanges in good condition?	☑	☐	☐	Is well boot (liner) in good condition?
☑	☐	☐	Are all other connections in good condition?	☐	☐	☒	Is well bore (soil) in good condition?
☑	☐	☐	Is well valve in good condition?	Yes	No	N/A	
☐	☐	☑	Is the well kanaflex in good condition?	☐	☑	☐	Compliance achieved?
☑	☐	☐	Is there a pump in the well?	_____			Date compliance achieved?
☑	☐	☐	Does pump require service?	_____			% O2 compliant reading
☑	☐	☐	Is well casing in good condition?				
☐	☐	☒	Miscellaneous - please describe	Well Needs a Flanged connection between PVC well casing & HDPE well head			
☑	☐	☐	Nominal vacuum adjustments "appropriate and reasonable reductions in vacuum"				

Complete within 2 days of initial discovery

Date: 4/16/07 ***of AEGL O&M Well Integrity Repairs & Investigation***

Technician: Josh Nepsa

Description on noted issue(s): Pump Operational

Repair Summary:

Yes	No	N/A	
☐	☑	☐	Wellhead ports / fittings / connections repaired/replaced?
☐	☐	☑	Wellhead Kanaflex repaired or replaced?
☑	☐	☐	Reviewed 3-months monitoring data for O2 trends (attach copy)
☐	☑	☐	Well casing integrity checked with dummy?
☐	☐	☑	Wellhead valve replaced or repair?
☐	☐	☑	Miscellaneous repaired or replaced? - please describe _____
☐	☐	☐	Nominal vacuum adjustments "appropriate and reasonable reductions in vacuum"
☐	☐	☐	Review logs for original pipe lengths installed?

Solid 25 ft.
Perforation 10' ft.
DTB _____ ft.
DTF _____ ft.

Yes	No	N/A	
☐	☑	☐	Compliance achieved?
N/A			Date compliance achieved?
N/A			% O2 compliant reading

Noted integrity issues: _____

Additional Comments:

Attachment B
Chronological Oxygen Content Readings

Attachment B
Chronological Oxygen Content Readings

GEM ID	As-built ID	Date Time	O2 %
CNTYA01R	PW-A1R	4/9/2007 15:08	17.4
CNTYA01R	PW-A1R	4/9/2007 15:11	16.6
CNTYA01R	PW-A1R	4/11/2007 14:24	20.2
CNTYA01R	PW-A1R	4/11/2007 14:26	19.6
CNTYA01R	PW-A1R	4/16/2007 10:20	16.8
CNTYA01R	PW-A1R	4/16/2007 10:22	16.6