



Countywide Recycling & Disposal Facility

Division of Republic Waste Services of Ohio
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May 8, 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 23-27, 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 23 and April 27, 2007, one (1) landfill gas (LFG) extraction well had an initial oxygen exceedance over 1.5% which was not able to be brought into the target oxygen range within 14 days. This well is in addition to the previous wells in which a written demonstration request was submitted to your attention on April 16, 2007, April 23, 2007, and May 1, 2007. 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 (1) 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 23, 2007
For Which Written Demonstration is Required

Well ID	Date of Initial Exceedance	Initial Oxygen Content	Last Oxygen Content As Of May 1, 2007
M1	4/24/2007	2.6%	1.6%

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

**Table 2
Corrective Actions Taken During the Week of April 15, 2007
and Reason Mandated Oxygen Content Not Achieved**

Well ID	Corrective Actions Taken	Reason 1.5% Level Not Achieved
M1	Nominal vacuum adjustment, assessed well integrity, viewed internal well integrity with a sewer camera.	This is a remote wellhead where the actual well casing is buried under waste. The area where this well is located is experiencing unusual settlement due to the aluminum dross reaction. The camera investigation showed the remote wellhead to be pinched at 10 feet into the lateral due to settlement. The camera was not able to get into the actual well casing.

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 wells 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
M1	August 22 (120 days from initial exceedance) to evaluate potential to abandon or re-drill this well. Several factors must be considered in the evaluation such as; necessity of the well (to be determined by a professional engineer in accordance with NSPS and Title V permit requirements), safety and access of re-drilling a new well in the settlement area, etc. Countywide will continue to monitor this well until such a determination is made, however due to the extent of the settlement it is unlikely that the 1.5% oxygen target can be achieved with regularity.

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, especially since it is buried under several feet of waste with no perforations near the landfill surface. Instead we believe the air is vapor-locked in the top of this well or the buried pinched lateral is slightly leaking air into the lateral.

Please note that if Countywide is not able to achieve the required 1.5% oxygen concentration as a result of proposed 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 this LFG well as required and continue working to achieve 1.5% or less oxygen concentration for this and all other LFG wells.

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

A handwritten signature in black ink, appearing to read 'Tim Vandersall', with a long horizontal flourish extending to the right.

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



PRIORITY RESPONSE TO > 1.5% O2 LFG WELL READING

Well Identification: M1

Date: 4/24/07 **Time:** 11:32 **of initial discovery of > 1.5% oxygen**

Technician: Josh Nepesa 2.6% % O2 non-compliant reading

Possible issue(s): _____

Yes No N/A

Nominal vacuum adjustments "appropriate and reasonable reductions in vacuum"

Date: _____ **of AEGL O&M Well Integrity Assessment (below)**

Technician: _____

Yes	No	N/A		Yes	No	N/A		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is well labeled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is well lateral / header in good condition?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is well head remote?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is lateral or header line surging?	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is well hard piped?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the well surging?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all sample ports in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is well boot (liner) in good condition?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all flanges in good condition?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is well bore (soil) in good condition?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all other connections in good condition?	Yes	No	N/A		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is well valve in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Compliance achieved?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the well kanaflex in good condition?				_____ Date compliance achieved?	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there a pump in the well?				_____ % O2 compliant reading	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does pump require service?					
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is well casing in good condition?					
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Miscellaneous - please describe _____					
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nominal vacuum adjustments "appropriate and reasonable reductions in vacuum"					

Date: 5/1/07 **of AEGL O&M Well Integrity Repairs & Investigation**

Technician: Josh Nepesa

Description on noted issue(s): _____

Repair Summary:

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

Solid 24 ft.
 Perforation 110 ft. } Remote well head
 DTB N/A ft.
 DTF N/A ft.

Yes No N/A

Compliance achieved?

_____ Date compliance achieved?

_____ % O2 compliant reading

Noted integrity issues: _____

Additional Comments: well cameraed on 5/3/07 by Mike Bust & Mark Apicella

Well Pinched @ 10'

LFG GAS EXTRACTION WELL CAMERA INVESTIGATION REPORT



Well No. M-1 (remote-well)

Site Name: Countywide RDF

Site Location: East Sparta

Project No.: 607302

Camera Technician: Mark + Mike

Date of Investigation: 5-3-7

Depth to Bottom: N/A

Depth to Fluid: N/A

WELL DEPTH	COMMENTS
0 - 5	No PERFS
5 - 10	Pinch 10' FLANGE
10 - 15	
15 - 20	
20 - 25	
25 - 30	
30 - 35	
35 - 40	
40 - 45	
45 - 50	
50 - 55	
55 - 60	
60 - 65	
65 - 70	
70 - 75	
75 - 80	
80 - 85	
85 - 90	
90 - 95	
95 - 100	
100 - 105	
105 - 110	
110 - 115	

Attachment B
Chronological Oxygen Content Readings

Attachment B
Chronological Oxygen Content Readings

GEM ID	As-built ID	Date Time	O2 %
CNTYM001	M1	4/24/2007 11:32	2.6
CNTYM001	M1	4/24/2007 11:36	2.1
CNTYM001	M1	5/1/2007 15:48	1.7
CNTYM001	M1	5/1/2007 15:51	1.6