



**Countywide Recycling & Disposal Facility**  
Division of Republic Waste Services of Ohio  
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# RECEIVED

DEC 13 2007

OHIO EPA  
DIV. OF SOLID & INFECTIOUS WASTE MGMT

December 5, 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 NOVEMBER 21, 2007  
ORDER 4.B.2, DIRECTOR'S FINAL FINDINGS AND ORDERS OF MARCH 28, 2007  
COUNTYWIDE RECYCLING AND DISPOSAL FACILITY

Dear Mr. Gortner:

On November 21, 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 range within 14 days. 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 On November 21, 2007**  
**For Which Written Demonstration is Required**

Well ID	Date of Initial Exceedance	Initial Oxygen Content	Oxygen Content As Of December 4, 2007
PW-127	11/21/2007	2.3%	5.3%

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 November 19, 2007  
and Reason Mandated Oxygen Content Not Achieved**

<b>Well ID</b>	<b>Corrective Actions Taken</b>	<b>Reason 1.5% Level Not Achieved</b>
PW-127	Nominal vacuum adjustments, assessed well integrity and made repairs as appropriate, performed repairs to erosions on the intermediate cover, added bentonite seal around well casing, performed depth to fluid and depth bottom investigation.	Well integrity investigation showed no apparent integrity issues with the well casing or wellhead. The depth to fluid measurements shows open perforations in the well casing. At this time it is unknown why there is excess oxygen in this well.

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**

<b>Well ID</b>	<b>Requested Timeline for Correction</b>
PW-127	January 20, 2008 (60 days from initial exceedance) to perform additional investigation and corrective actions to achieve compliance on this well.

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 may be coming from shallow intrusion from erosion and settlement cracking near this well. There has typically been less than 1" of water column vacuum applied to this well during this period.

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 this LFG well as required and continue working to achieve 1.5% or less oxygen concentration for this LFG well.

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

Handwritten signature of Todd K. Hammit in black ink, with the text "For TMV" written to the right of the signature.

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:** P10-127

**Date:** 11-21-07 **Time:** 10:40 **of initial discovery of > 1.5% oxygen**

**Technician:** Tom Phillips 2.3 % O2 non-compliant reading

**Possible issue(s):** \_\_\_\_\_

Initial Discovery

Yes No N/A

Nominal vacuum adjustments "appropriate and reasonable reductions in vacuum"

**Date:** 11-21-07 **of AEGL O&M Well Integrity Assessment (below)**

**Technician:** Tom Phillips

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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is well casing in good condition?					
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Miscellaneous - please describe					<u>Erosion around well casing</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nominal vacuum adjustments "appropriate and reasonable reductions in vacuum"					

Complete within 1-day of initial discovery

**Date:** 12-4-07 **of AEGL O&M Well Integrity Repairs & Investigation**

**Technician:** Tom Phillips

**Description on noted issue(s):** \_\_\_\_\_

**Repair Summary:**

Yes	No	N/A		Yes	No	N/A		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wellhead ports / fittings / connections repaired/replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Compliance achieved?	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wellhead Kanaflex repaired or replaced?				_____ Date compliance achieved?	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reviewed 3-months monitoring data for O2 trends (attach copy)				_____ % O2 compliant reading	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Review logs for original pipe lengths installed?					

Complete within 2 days of initial discovery

Solid 180 ft.  
 Perforation 600 ft.  
 DTB 76.0 ft.  
 DTF 570 ft.

Noted integrity issues: \_\_\_\_\_

**Additional Comments:** 11-21-07 Added 9 Bags of Bentonite to erosion around well casing.



**Attachment B**  
**Chronological Oxygen Content Readings**

**Attachment B**  
**Chronological Oxygen Content Readings**

<b>GEM ID</b>	<b>As-built ID</b>	<b>Date Time</b>	<b>O2 %</b>
CTYPW127	PW-127	11/21/2007 10:40	2.3
CTYPW127	PW-127	11/21/2007 10:44	3.4
CTYPW127	PW-127	11/26/2007 9:59	1.8
CTYPW127	PW-127	11/26/2007 10:02	1.6
CTYPW127	PW-127	11/30/2007 15:32	2.9
CTYPW127	PW-127	11/30/2007 15:37	2.8
CTYPW127	PW-127	12/4/2007 10:27	4.4
CTYPW127	PW-127	12/4/2007 10:31	4
CTYPW127	PW-127	12/4/2007 10:39	5.4
CTYPW127	PW-127	12/4/2007 10:46	5.3