



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

January 16, 2009

**RE: NOTICE OF VIOLATION
EXPLOSIVE GAS MGT. AND MONITORING
HARVARD REFUSE LANDFILL
CUYAHOGA COUNTY**

CERTIFIED MAIL

Stanley Lojek, President
Harvard Refuse, Inc.
7720 Harvard Avenue
Cleveland, OH 44105

Dear Mr. Lojek:

This letter provides comments regarding twelve weekly explosive gas monitoring reports and violations regarding the explosive gas certification report and the explosive gas management system for Harvard Refuse Inc. (HRI). HRI includes a solid waste landfill located at 7720 Harvard Avenue, cities of Cleveland, Cuyahoga Heights, and Garfield Heights, Cuyahoga County. Each explosive gas monitoring report has three parts: West report includes 47 monitoring wells, East report includes 47 monitoring wells, and Dorver Avenue report includes 8 monitoring wells. The reviewed reports are listed below by sampling days:

1. September 3, 2008, received October 1, 2008
2. September 10, 2008, received October 1, 2008
3. September 17, 2008, received October 1, 2008
4. September 23-24, 2008, received October 1, 2008
5. September 29-30, 2008, received October 31, 2008
6. October 6-7-8-9, 2008, received October 31, 2008
7. October 13-14-15-16-17, 2008, received October 31, 2008
8. October 20-21-22-23-24, 2008, received October 31, 2008
9. November 3-4-5-6, 2008, received December 16, 2008
10. November 10-11-12-13, 2008, received December 16, 2008
11. November 17-18-19-20, 2008, received December 16, 2008
12. November 24-25-26-28-29, 2008, received December 16, 2008

Below are comments identified during the review of the monitoring reports:

Comments regarding Explosive Gas Monitoring Reports

1. The first four reports include sampling on September 3, 10, 17, and 23-24, 2008.

The reports indicate that the explosive gas meter was last calibrated on November 16, 2007, about ten months before the sampling events. This seems to be too long of a time period to ensure that the equipment will provide accurate results.

The next eight reports include sampling on September 29-30, October 6-7-8-9, October 13-14-15-16-17, October 20-21-22-23-24, November 3-4-5-6, November 10-11-12-13, November 17-18-19-20, and November 24-25-26-28-29, 2008. These reports indicate that the explosive gas meter was calibrated on September 26, 2008, within at least three months of sampling events, which is much more reasonable.

2. Near the top of each report form, there was no entry for "Calibration Gas." Please indicate the calibration gas on all future monitoring reports.
3. Recorded Sampling Times: The first four weekly reports have identical sampling times. The second four reports have many (not all) identical sampling times. Ohio EPA reminds Harvard Refuse that the sampling times listed on the weekly explosive gas monitoring forms should be the actual sampling times.

Violations Regarding Explosive Gas Certification Report

1. The explosive gas monitoring certification report is not complete. The violations and deficiencies regarding the certification report were listed in Ohio EPA's letter, dated December 7, 2007. Please provide the requested information needed to complete the certification report. In brief, the violations related to the certification report are:
 - a. Condition 1 of the August 4, 2003 authorization
 - b. Condition 3 of the August 4, 2003 authorization
 - c. Condition 6 of the August 4, 2003 authorization
 - d. OAC 3745-27-12(A)(3)

In addition, Ohio EPA's December 7, 2007 letter lists four deficiencies and three comments. HRI must respond to these items also. The letter is attached.

Lastly, Ohio EPA is aware of the following:

- i. There are several monitoring well construction configurations which make up the HRI explosive gas monitoring network. The revised certification report should include a drawing of each kind of well construction and a site map that indicates the kind of well construction for each numbered well. For example, some wells are flush mount (level with the ground surface), while others extend several feet above the ground surface.

- ii. Some monitoring wells are on private property. Ohio EPA requests that HRI include in the revised certification report, detail describing how HRI enters each private property in order to sample those wells. For each well on private property, the narrative should include name, address and phone number of the private property owner/renter, the monitoring well number and any additional relevant information such as information on locked gates and fences.

Violations Regarding Explosive Gas Management Documentation

1. Ohio EPA's letter dated June 30, 2005, states in part, *"In closing, Ohio EPA notes that an existing flare was relocated approximately 300 feet south/southeast of its former location on the Cleveland unit of the facility. During our site visits during the week of June 20, 2005, it is Ohio EPA's understanding that this particular flare was relocated approximately a year ago. It is also unknown if any of the flares for the gas collection and control system have air emissions permits. Please note that installation or relocation of any landfill flare in Cuyahoga County typically requires authorization from both city of Cleveland Division of Air Pollution Control as an air emissions source, and from Ohio EPA DSIWM as a change to any document(s) which authorized the explosive gas extraction and control system, or some additional authorization from either Ohio EPA or U.S. EPA. Please provide documentation of the necessary authorizations secured to relocate this flare."*

Regarding the above, HRI is in violation of OAC 3745-27-13 due to constructing the landfill flare and associated piping without prior authorization from Ohio EPA. HRI must provide plan drawings of the existing explosive gas management systems at all sections of the solid waste landfill and respond to Ohio EPA's letter dated June 30, 2005.

2. During the annual survey inspection at HRI on September 18, 2008, Ohio EPA observed two passive explosive gas vents installed near Dorver Avenue. Mr. Korybko indicated the vents extend underground approximately 30 feet.

HRI is in violation of OAC 3745-27-13 due to the construction of the passive vents at the landfill without prior authorization for Ohio EPA. HRI must provide description and plan drawings of the two passive explosive gas vents installed near Dorver Avenue.

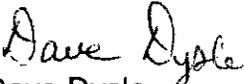
Nothing in this letter shall be construed to authorize any waiver from the requirements of any applicable state or federal laws or regulations. This letter shall not be interpreted to release HRI from responsibility under Chapters 3704, 3714, 3734, or 6111 of the Ohio Revised Code or under the Federal Clean Water or Comprehensive Environmental Response, Compensation, and Liability Acts for remedying conditions resulting from any release of contaminants to the environment.

Stanley Lojek, President
Harvard Refuse, Inc.
January 16, 2009
Page 4

Ohio EPA would like to do co-sampling during a weekly explosive gas monitoring event within the next three weeks. Please call me at (330) 963-1286 so that we can coordinate when to meet for the monitoring event.

If you have comments or questions concerning this review, please feel free to contact me at (330) 963-1286.

Sincerely,



Dave Dysle
Environmental Specialist
Division of Solid and Infectious Waste Management

DD:cj

cc: John Schmidt, DSIWM, NEDO
Melinda Berry, DSIWM, CO
Nicholas Bryan, AGO, EES
Annie Snyder, City of Cleveland Health Department
Dane Tussel, Cuyahoga County Board of Health
David Hearne, City of Cleveland Division of Air Pollution Control
Owen Karickhoff, CT Consultants
File: [Sowers/Land/Harvard Refuse/EXP/18]

Attachment: Ohio EPA letter dated December 7, 2007

DSIWM #2033, 2122



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December 7, 2007

**RE: NOTICES OF VIOLATION/DEFICIENCY
EXPLOSIVE GAS MONITORING PLAN
HARVARD REFUSE LANDFILL
CUYAHOGA COUNTY**

CERTIFIED MAIL

Stanley Lojek, President
Harvard Refuse, Inc.
7720 Harvard Avenue
Cleveland, OH 44105

Dear Mr. Lojek:

On July 22, 2004, the Ohio Environmental Protection Agency (Ohio EPA) received a July 22, 2004 document titled *Harvard Refuse Landfill Explosive Gas Monitoring Certification Report*. Revisions to the document dated September 28, 2007 were received on September 28, 2007. The document and subsequent revisions represent certification of installation of permanent monitors associated with implementation of an explosive gas monitoring plan approved on August 4, 2003. The document and subsequent revisions were prepared by CT Consultants, Inc. (CT), originally by SCS Engineers (SCS) on behalf of Harvard Refuse, Inc. (HRI). The Harvard Refuse Landfill (Landfill) is a closed solid waste disposal facility located at 7720 Harvard Avenue, cities of Cleveland, Cuyahoga Heights, and Garfield Heights, Cuyahoga County. The Landfill was licensed by the Cuyahoga County Board of Health from 1969 to 1987. Solid waste acceptance ceased at the facility in 1987.

The document represents responses to Notices of Violation and Deficiency (NOV/NODs) dated April 11, 2005, and June 28, 2007 regarding certification of the components of the explosive gas monitoring system. The September 28, 2007, document revisions represent certification of installation of permanent monitors associated with implementation of an explosive gas monitoring plan approved on August 4, 2003. August 4, 2003, explosive gas monitoring plan approval required the gas plan to be implemented no later than November 1, 2003, 90 days from the date of approval. The August 4, 2003, approval requires HRI to monitor a series of permanent monitors, spaced at 50-foot intervals around the perimeter of the landfill units which face occupied structures. Approximately 100 permanent monitors were envisioned. During 2004, HRI installed a total of 44 monitors along the western boundary of the North Area unit, four monitors along the east side of the middle unit, and 40 monitors along the eastern boundary of the South Area unit, but have failed to install permanent monitors around all portions of the perimeters at the required 50-foot spacing as specified by the August 4, 2003, approval. HRI stated in their June 9, 2005, response that additional permanent monitors will be installed in 2005, with additional monitor installation proposed to commence on June 20, 2005. The September 28, 2007, revisions represent the additional monitor installation.

Stanley Lojek, Harvard Refuse, Inc.
Explosive Gas Plan Certification
December 7, 2007
Page 2 of 2

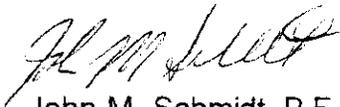
Ohio EPA has completed its review of the September 28, 2007, revisions to the certification report, and several violations, deficiencies and comments noted in the April 11, 2005 and June 28, 2007, NOV/NOD remain and are included as Attachment 1. All attached violations, deficiencies and comments must be addressed and one complete, revised copy of the revised certification report, contained in a three-ring binder format, resubmitted before Ohio EPA NEDO can continue its review.

Please respond to all violations and submit a revised certification report addressing all deficiencies no later than 60 days from the date of this letter.

Nothing in this letter shall be construed to authorize any waiver from the requirements of any applicable federal or state laws or regulations. This authorization shall not be interpreted to release Harvard Refuse, Inc., its consultants, or others from responsibility under Ohio Revised Code (ORC) Chapters 3704, 3714, 3734, or 6111; under the Federal Clean Water Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, or the Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants to the environment.

If you have comments or questions concerning this review, please feel free to contact me at (330) 963-1175.

Sincerely,



John M. Schmidt, P.E., R.S.
Division of Solid and Infectious Waste Management

JMS/cl
Attachment

pc: Kurt Prinic, DSIWM-NEDO
Dave Dysle, DSIWM-NEDO
Melinda Berry, DSIWM-CO
Ed Gortner, DSIWM-CO
Dan Bogoevski, DSW-NEDO
Annie Snyder, City of Cleveland Health Department
Matt Johnson, Cuyahoga County Board of Health
David Hearne, City of Cleveland Division of Air Pollution Control
File: [Sowers/Land/Harvard Refuse LF/EXP/018]

DSIWM #588

**Attachment 1, December 7, 2007, NOV and NOD: Harvard Refuse Landfill
Explosive Gas Monitoring Plan Certification, September 2007 Revisions**

Ohio EPA reviewed the September 28, 2007 revisions to the July 2004 explosive gas monitoring plan certification report for the Harvard Refuse Landfill for compliance with Ohio Administrative Code (OAC) Rules 3745-27-12, and OAC 3745-27-08(H), effective August 15, 2003, and notes the following:

Violations:

1. **Condition No. 1 of the August 4, 2003, authorization** states that the explosive gas monitoring plan shall be implemented in accordance with the approved plan, and that all activities shall be conducted in strict accordance with the plans, specifications, and information submitted as a part of this plan. There shall be no deviation from the approved plan without the express written approval of Ohio EPA.

As stated in the April 11, 2005, and June 28, 2007, NOV/NOD documents, Harvard Refuse, Inc. (HRI) did not implement the explosive gas monitoring plan in accordance with the August 4, 2003, authorization. OAC 3745-27-12(A)(6), states that for purposes of this rule, the "explosive gas monitoring plan" is implemented upon commencement of explosive gas sampling in accordance with this rule. From examination of the information contained in the July 22, 2004, certification report and September 28, 2007, revisions, HRI did not conduct the installation of the entire gas monitoring system in strict accordance with the plans, specifications, and information submitted as a part of the August 4, 2003, authorization, and did not commence sampling upon installation of the gas monitoring system. HRI acknowledged in earlier correspondence that additional permanent monitors are required, and from examination of boring logs 1WA through 21WA, 1WN, 2WN, 1DN 5D, 6D, 7D, 1EA, and 41E through 46E, apparently installed these wells in June and July 2005. Ohio EPA files reflect that sampling did not commence at wells referenced in until January 25, 2005 in violation of Condition No. 1 of the August 4, 2003, authorization. HRI also deviated from the approved plan without the express, written approval of Ohio EPA in violation of Condition No. 1 of the August 4, 2003, authorization. No documentation of depth and length of screened intervals were provided in the certification report as prescribed by OAC 3745-27-12(F)(3). HRI will remain in violation of Condition No. 1 of the August 4, 2003, authorization until the entire explosive gas monitoring system is installed, sampled, and certified to Ohio EPA in accordance with the August 4, 2003, authorization.

2. **Condition No. 2 of the August 4, 2003, authorization** requires written notification of both Ohio EPA, Northeast District Office (NEDO), Division of Solid and Infectious Waste Management (DSIWM) and the Cuyahoga County Board of Health (CCBH) not later than 72 hours prior to commencement of proposed activities.

As stated in the April 11, 2005, and June 30, 2005, NOV/NOD documents, as well as the June 28, 2007, NOV, although verbal notification was given to Ohio EPA in 2004, written notification was not provided for monitors installed in 2004 as required by the August 4, 2003, authorization in violation of Condition No. 2 of the August 4, 2003, authorization. On June 16, 2005, Ohio EPA received a June 15, 2005, notification that proposed drilling will commence for the balance of the explosive gas monitoring system on June 20, 2005. HRI remains in violation of Condition No. 2 of the August 4, 2003, authorization for failing to provide written notification prior to commencing the installation of the 2004 monitors. HRI did provide timely written notification for monitors installed in June 2005. No additional response from HRI is required to address the violation from the 2004 monitor installation.

3. ***Condition No. 3 of the August 4, 2003, authorization requires within 90 days from the date of this approval, implementation of the explosive gas monitoring plan. Implementation shall include installation and monitoring of temporary and permanent monitors pursuant to OAC Rule 3745-27-12(E).***

As stated in the April 11, 2005, and June 30, 2005, NOV/NOD documents, and the September 28, 2007, NOV, as of September 28, 2007, Harvard Refuse, Inc. (HRI) has failed to install and monitor all permanent and temporary monitors as specified in the plan in accordance with Order 1 of the August 4, 2003, authorization. The gap between installed monitor 16W and 17W, as well as south of monitoring well 8D, appears to be greater than 50 feet, and is not in strict compliance with the plans. As stated in the April 11, 2005 NOV/NOD, sampling of monitors installed in 2004 apparently did not commence until January 25, 2005, and sampling of the monitors installed in 2005 apparently did not commence until July 30, 2005, well beyond the November 2, 2004, deadline established in the authorization. HRI remains in violation of Condition No. 3 of the August 4, 2003, authorization. OAC 3745-27-12(H)(2) specifically states that a facility owner/operator shall submit a written request to alter any approved plan to the appropriate district office for concurrence prior to implementation. HRI in earlier correspondence responded that they have no desire to alter the approved plan, and Ohio EPA expects that all permanent and temporary monitors specified in the August 4, 2003, plan will be installed at the minimum spacing of 50 feet.

4. ***Condition No. 6 of the August 4, 2003, authorization requires HRI to submit the certification report for construction of the explosive gas monitoring system within 60 days of implementation of the explosive gas monitoring plan.***

As stated in the April 11, 2005, and June 30, 2005, NOV/NOD documents, as well as the September 28, 2007, NOV, the plan appears to have commenced implementation on October 20, 2003, based upon the information provided in the

July 22, 2004, certification report. Pursuant to Condition 6 of the August 4, 2003, authorization, a certification report for all permanent and temporary monitors should have been submitted no later than December 19, 2003. The certification report for monitors installed in 2004 was submitted on July 22, 2004, and HRI has stated in their June 9, 2005, response that certification of monitors installed in 2005 will be submitted as timely as possible. Ohio EPA expected that the revised certification report will be submitted within 60 days of installation and sampling (September 2005), which it did not receive until September 28, 2007. HRI remains in violation of Condition No. 6 of the August 4, 2003, authorization, although no response is required from HRI.

5. ***OAC 3745-27-12(A)(3) requires implementation of an explosive gas monitoring plan within 60 days of approval or in accordance with a schedule approved by the director.***

As stated in the April 11, 2005, and June 30, 2005, NOV/NOD documents, as well as the September 28, 2007, revisions, the approved plan was required to be implemented no later than November 2, 2003. OAC 3745-27-12(A)(6), states that for purposes of this rule, the "explosive gas monitoring plan" is implemented upon commencement of explosive gas sampling in accordance with this rule. Failure to implement the plan in accordance with Order 3 of the August 4, 2003, approval also places HRI in violation of OAC Rule 3745-27-12(A)(3). HRI remains in violation of OAC Rule 3745-27-12(A)(3).

Deficiencies:

1. Initial Reporting of Monitoring Results with the Certification Report [OAC 3745-27-12(F)]: In the June 30, 2005 NOV/NOD document, Ohio EPA notes that the June 9, 2005, response implies that monitoring was conducted, it just wasn't reported. The July 22, 2004, transmittal letter states that "monitoring of the permanent monitors as well as numerous punch bar locations (temporary) on fifty-foot spacing along the northern end the north area has not detected explosive gas." However, neither the July 22, 2004, certification report nor the September 28, 2007, revisions include the initial **reporting** of the monitoring results as required by rule. From examination of HRI's files, sampling of all monitors referenced in the September 28, 2007, revisions has been conducted at least since July 30, 2005. Please include this information.
2. Record Drawing showing Locations of All Punch Bar Stations and Permanent Monitors [OAC 3745-27-12(F)(1)]: Record drawings illustrating locations of installed permanent monitors is identified as Sheet Nos. 1 of 4 and 2 of 4. From examination of this information, Ohio EPA identifies the following deficiencies:
 - a. Installation of All Permanent Monitors as Specified in the August 4, 2003, Authorization: From examination of the drawings, it appears that several

monitors were not installed in accordance with the approved plan. These include the following:

- i. One permanent monitor between permanent monitors 16W and 17W along the west perimeter of the North Area unit;
- ii. Two to three permanent monitors south of permanent monitor 8D along the east and south perimeters of the Middle Area Unit;
- iii. Five to six permanent monitors north of permanent monitor 1E along the east perimeter of the South Area Unit;
- iv. One permanent monitor between permanent monitor 17E and 18E along the east perimeter of the South Area Unit; and
- v. One permanent monitor between permanent monitors 18E and 19E along the east perimeter of the South Area Unit

As communicated to HRI during the review of the July 2003 plan, HRI agreed to install permanent monitors at a spacing of no more than 50 feet along all perimeters which face occupied structures. Any greater spacing will not be acceptable to Ohio EPA. Had the plan been approved under the current gas rules, which became effective on August 15, 2003, HRI would have been required to install structure alarms within all occupied structures within 1,000 feet of the waste limits upon the consent of the property owners. HRI must install all permanent monitors in accordance with the August 4, 2003, approved plan or HRI will be required to install structure alarms in all occupied structures within 1,000 feet of the waste limits upon consent of the property owner. Additional monitors installed in June and July 2005 address some of additional monitors identified in the June 30, 2005, NOV/NOD, but not all. Please revise the certification report to include installation of all monitors included in the August 4, 2003, approved plan.

3. Geologic Logs from Installation of Each Permanent Monitor [OAC 3745-27-12(F)(2)]: Geologic logs were submitted as an attachment to the July 22, 2004, certification report transmittal letter. From examination of this information, Ohio EPA identifies the following:

- a. Missing Geologic Boring Logs: From review of the information, Ohio EPA was unable to locate geologic borings for permanent monitors 13W, 14W, 21W, 1E, 4E, 5E, 9E, 13E, 15E, 16E, 17E, 19E, 21E, 23E, 26E, 30E, 31E, 32E, 36E, 37E, 2D, 3D, and 4D. HRI has offered no response as to why the boring logs for these monitors are excluded. If the rationale is that monitors were installed prior to certification requirements, the plan should note this information. The plan drawings and accompanying tables should include designations of which monitors exist prior to August 2003, which monitors were installed in 2004, and which monitors were installed in

2005. The plan should also include a summary table in the geologic boring appendix that references older borings for which logs were not provided or are unable to be located. Please note that if any boring log exists which was relied upon for the geologic cross section, it must be included, regardless of when the boring was taken. Please provide the boring logs as required by rule.

- b. Termination of Permanent Monitor Depths, East Perimeter of South Area Unit: Appendix A of the approved plan states that borings will penetrate overburden and extend five feet into underlying shale, unless groundwater is encountered at a higher elevation. Boring logs for several permanent monitors along the east side indicate that neither shale nor ground water was encountered before terminating the boring. HRI stated in their June 9, 2005, response that top of rock was identified in all borings except 3W, 8W, and 17W, and ground water was encountered in these three borings. Please note that monitors were supposed to extend five feet into underlying rock (shale), to ensure that there are no potential migration pathways below the termination of the boring.
4. Depths and Screened Intervals for Each Permanent Monitor [OAC 3745-27-13(F)(3)]: Depths of borings are provided in the boring logs, and "bottom of pipe" appears to refer to the depth of the monitor. Ohio EPA was unable to locate information of the length of screen for each permanent monitor as required by rule in either the July 2004, certification report or the September 28, 2007, revisions. As stated in the April 11, 2005, and June 30, 2005, NOV/NOD documents, certification report revisions must contain both a typical detail of the monitors as actually installed and a table referencing the screened length of each permanent monitor as required by rule. Ohio EPA understands that there are at least two types of monitors installed at the facility, a "flush mount" type and a standard configuration. Typical details of each must be provided and a designation as to the type of monitor provided in a summary table. In addition, any flush mounted monitor should have a marker to identify its location, particularly in snow-covered events. Plan drawings should clearly delineate the monitor type (flush mounted vs. standard). In the June 30, 2005, NOV/NOD document, I provided an example certification report which indicates other design elements of the permanent monitors which should be documented in the certification report. Please include this information.

Comments

While not specific deficiencies, the following comments were offered per review of the plan in the April 11, 2005, and June 30, 2005, NOV/NOD documents. I have included these here for your reference:

1. Plan Submission Format [No rule Reference]: The certification report should be submitted in a three-ring format to facilitate future revisions. For reference, the report must document any alterations from the August 4, 2003, authorization, as well as note any other changes being requested with the certification report. A copy of the report should also be forwarded onto the Cuyahoga County Board of Health, and the Cleveland City Health Department for their records.
2. Recommended Certification Report Format: For reference, I have attached the recommended certification report format, along with the necessary details documenting installation of the permanent monitors and punch bar station locations in accordance with an approved plan. Please include this format in future revisions of the certification report.
3. Response to Identified Deficiencies: Typically, Ohio EPA sees a transmittal letter with a response to the identified deficiencies, indicating the applicable portions of the revised certification report as appropriate. Please include a written response to these deficiencies with the revisions to the certification report.

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