



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

6/4/2012

Certified Mail

Tim Vandersall
Countywide Recycling and Disposal Facility
3619 Gracemont Street Southwest
East Sparta, OH 44626

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1576001579
Permit Number: P0110022
Permit Type: Administrative Modification
County: Stark

Yes	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
Yes	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Canton City Health Department. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
Canton; Pennsylvania; West Virginia



FINAL

Division of Air Pollution Control
Permit-to-Install
for
Countywide Recycling and Disposal Facility

Facility ID: 1576001579
Permit Number: P0110022
Permit Type: Administrative Modification
Issued: 6/4/2012
Effective: 6/4/2012



Division of Air Pollution Control
Permit-to-Install
for
Countywide Recycling and Disposal Facility

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Authorization

Facility ID: 1576001579

Facility Description: Landfill for Non-hazardous waste.

Application Number(s): M0001703

Permit Number: P0110022

Permit Description: This administrative modification is to correct the stack total HAPs (hourly and annual), the fugitive individual HAPs (annual), and sulfur dioxide (hourly and annual) emission limits for P901. It was determined in April 2012, that the permits limits for these pollutants listed in P0104574 were the result of an error in the permitting process and were not previously detected.

Permit Type: Administrative Modification

Permit Fee: \$625.00

Issue Date: 6/4/2012

Effective Date: 6/4/2012

This document constitutes issuance to:

Countywide Recycling and Disposal Facility
3619 Gracemont Avenue Southwest
East Sparta, OH 44626

of a Permit-to-Install for the emissions unit(s) identified on the following page.

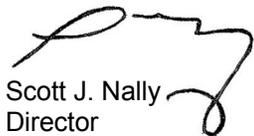
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department
420 Market Avenue
Canton, OH 44702-1544
(330)489-3385

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Scott J. Nally
Director



Authorization (continued)

Permit Number: P0110022

Permit Description: This administrative modification is to correct the stack total HAPs (hourly and annual), the fugitive individual HAPs (annual), and sulfur dioxide (hourly and annual) emission limits for P901. It was determined in April 2012, that the permits limits for these pollutants listed in P0104574 were the result of an error in the permitting process and were not previously detected.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P901
Company Equipment ID:	Landfill Operations
Superseded Permit Number:	P0104574
General Permit Category and Type:	Not Applicable



A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Canton City Health Department.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Canton City Health Department. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Canton City Health Department every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Canton City Health Department in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Canton City Health Department concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Canton City Health Department.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have

been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Canton City Health Department. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The following emissions unit contained in this permit is subject to New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart WWW, National Emission Standard for Hazardous Air Pollutants (NESHAPs) 40 CFR Part 61, Subparts A and M, and the NESHAP 40 CFR Part 63, Subpart AAAA Maximum Achievable Control Technology (MACT): P901, Landfill Operations.

The complete NSPS and NESHAP/MACT requirements, including the NSPS and NESHAP/MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Canton Local Air Agency (Canton LAA).

The design plan required in this section has been submitted to the Ohio EPA's Stark County representative, Canton LAA, located at the Canton City Health Department (CCHD). Additionally, the amended design plan submitted on December 15, 2006 included appropriate alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of Sections 60.753 through 60.758 proposed by the permittee. The permittee has continued to provide updated as-built drawings of the system in its semi-annual NSPS GCCS reports. The gas collection and control system design plan conforms with specifications for active collection systems in 60.759.

Many site-specific factors must be taken into consideration in landfill gas system design and alternative systems may be necessary.

C. Emissions Unit Terms and Conditions



1. **P901, Landfill Operations**

Operations, Property and/or Equipment Description:

Municipal Solid Waste (MSW) landfill disposal operations including: the operation of utility open flare control devices for the destruction of gases generated in the landfill; waste handling and compaction; material handling of miscellaneous soil materials associated with overburden and daily cover; and wind erosion. AMDWR remains at 7,800 tons per day; design capacity of the landfill is approximately 66,844,165 cubic yards. Landfill is comprised of both an "Operation Unit" and "Remediation Unit".

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(6)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OPERATIONAL UNIT (CELLS 7 – 16)		
a.	OAC rule 3745-31-05(A)(3), effective 11/30/01	<p>Fugitive particulate matter (PM) shall not exceed 1.63 tons per year.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust [See b)(2)d. through b)(2)h.].</p> <p>Emissions from all control devices controlling emissions from this emissions unit shall be limited as follows:</p> <p>2.25 lbs of non-methane organic compounds (NMOC)/hour; 9.85 tons of NMOC/year;</p> <p>1.88 lbs of volatile organic compounds (VOC)/hour; 8.25 tons of VOC/year;</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>2.23 lbs of hydrogen chloride (HCl)/hour 9.77 tons of HCl/year.</p> <p>See b)(2)a.</p>
b.	ORC 3704.03(T)	<p>86.8 tons of fugitive non-methane organic compounds (NMOC)/year</p> <p>33.9 tons of fugitive volatile organic compounds (VOC)/year</p> <p>8,295 tons of fugitive methane (CH₄)/year.</p> <p>69.2 tons of fugitive HAP emissions/year.</p> <p>21.8 tons of fugitive individual HAP emissions/year.</p> <p>Visible fugitive PE shall not exceed 20% opacity as a 3-minute average.</p> <p>Emissions from all control devices serving this emissions unit shall be limited as follows:</p> <p>16.89 lbs of nitrogen oxides (NO_x)/hour; 74.0 tons of NO_x/year;</p> <p>91.9 lbs of carbon monoxide (CO)/hour; 402.6 tons of CO/year;</p> <p>4.58 lbs of sulfur dioxide (SO₂)/hour; 20.06 tons of SO₂/year;</p> <p>4.37 lbs of Total HAPs/hour; 19.1 tons of Total HAP/year;</p> <p>3.89 lbs of particulate matter less than 10 microns (PM₁₀)/hours; 17.02 tons of PM₁₀/year. (All particulate emissions from the control devices are PM₁₀)</p>

c.	<p>40 CFR Part 60, Subpart WWW (40CFR Part 60.750-759)</p> <p>[In accordance with 60.750(a), this emission unit is a municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991.]</p> <p>40 CFR 60.750</p>	<p>Operate a landfill gas collection and control system [40 CFR 60.752(b)(ii)]</p>
d.	<p>40 CFR Part 60 Subpart A 40 CFR 60.1-19 40 CFR 60.1(a)</p>	<p>The provisions of this part apply to the owner of operator of any stationary source which contains an affected facility subject to a standard in 40 CFR 60.</p> <p>No visible emissions from the open flare except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.</p>
e.	<p>40 CFR Part 63, Subpart AAAA (40 CFR Part 63.1930-1990)</p> <p>[In accordance with 63.1940(a) this emission unit will become an affected source when it meets the criteria in 40 CFR 63.1935(a) or (b).]</p>	<p>Start up, Shut down and Malfunction Plan and Semi-annual reports in accordance with 40 CFR 60.757(f)</p> <p>[40 CFR 63.1930]</p>
f.	<p>40 CFR Part 63 Subpart A 40 CFR 63.1-15</p> <p>(40 CFR 63.1965)</p>	<p>Table 1 to Subpart AAAA of 40 CFR 63 – Applicability of General Provisions to Subpart AAAA shows which parts of the General Provisions of 40 CFR 63.1-15 apply.</p>
g.	<p>40 CFR Part 61, Subpart M (40 CFR 61.140-157)</p> <p>[In accordance with 63.194(a) the provisions of this subpart are applicable to those sources specified in 61.142 through 61.151, 61.154 and 61.155. As specified in 61.154 this emission unit is an active waste disposal site that receives asbestos-containing waste material from a source covered under 61.149, 61.150, or 61.155]</p> <p>40 CFR 61.154</p>	<p>See b)(2)i.</p>

h.	40 CFR 61 Subpart A (40 CFR 61.01-19) 40 CFR 60.01(a)	The provisions of this part apply to substances that, pursuant to section 112 of the Act, have been designated as hazardous air pollutants. Asbestos (36 FR 5931; March 31, 1971)
i.	OAC rule 3745-20	This rule is equivalent to or less stringent than 40 CFR 61 Subpart M.
j.	OAC rule 3745-19	There shall be no open burning at the facility in violation of this rule.
k.	OAC rule 3745-17-08(B)	Exempt, pursuant to OAC 3745-17-08(A)(1). See b)(2)c.
l.	OAC rule 3745-17-07(B)(1)	Exempt, pursuant to OAC 3745-17-07(B)(11)(e). See b)(2)c.
REMEDIATION UNIT (CELLS 1 – 6)		
a.	40 CFR Part 60.753 40 CFR Part 60.753(g)	131°F See g)(1) through (5) terms and conditions
b.	OM&M Plan	Volume 1 and 2

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than 10 tons per year. However, that rule revision has not yet been approved by the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirements to satisfy BAT still exist as part of the federally-approved SIP for Ohio. Once the U.S. EPA approves the December 1, 2006, version of 3745-31-05, then these emission limits/control measures no longer apply.
- b. There are no applicable emission limitations/control measures from OAC rules 3745-17-08(B) and 3745-17-07(B) because the facility is not located in an Appendix A area as specified in OAC rule 3745-17-08.
- c. The permittee shall ensure that solid wastes are deposited, spread, and compacted in such a manner as to minimize or prevent visible emissions of dust. All truckloads of solid waste shall be unloaded in a manner which will minimize

the drop height of the solid wastes. Any dusty construction materials, soils or wastes likely to become airborne shall be watered or otherwise handled as necessary prior to, or during, dumping operations in order to minimize, or eliminate, visible emissions of fugitive dust. Watering shall be conducted in such a manner as to avoid the pooling of liquids and runoff. No dusty material shall be dumped during periods of high wind speed, unless the material has been treated ("Treated" means any of all of the following: employment of typical operational methods, watering, wind blocking, waste deposition in protected area, excavation and preparation of receiving area) to prevent fugitive dust emissions from becoming airborne.

- d. The material handling activities that are covered by this permit and subject to the above-mentioned annual fugitive mass PM limitation and the visible fugitive PM limitation for operations are listed below:
 - i. waste handling (depositing, spreading, and compacting)
 - ii. landfill daily and intermediate cover handling
 - iii. wind erosion from landfill surfaces/storage piles
 - iv. general earthmoving and soil handling during landfill construction
 - v. landfill aggregate handling during landfill construction
- e. The permittee shall employ best available control measures on all activities listed in b)(2)d. for the purpose of ensuring compliance with the above-mentioned applicable requirements (particulate emission limitations). In accordance with the permittee's permit application, the active and inactive storage piles are not typically determined to be a source of fugitive dust due to soil types stored within the piles. However, should it become necessary to control fugitive dust from the piles, the permittee has committed to employ appropriate corrective measures such as spraying with water to control fugitive dust. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- f. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary if there is snow and/or ice cover or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements (particulate emission limitations). Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- g. Implementation of the above-mentioned control measures in accordance with the terms and condition of this permit is appropriate and sufficient to satisfy the Best Available Technology (BAT) requirements of OAC rule 3745-31-05.

- c. the number of hours that the individual control devices were operated; and
 - d. the total amount of landfill gas, in scf, combusted in all of the control devices.
- (3) The permittee shall perform daily inspections to observe the following material handling activities when the activity(ies) is (are) being conducted:
- a. waste handling (depositing, spreading and compacting)
 - b. landfill daily and intermediate cover handling
 - c. wind erosion from landfill surfaces
 - d. general earthmoving and soil handling during landfill construction
 - e. landfill aggregate handling during landfill construction

The inspections shall be documented and recorded as required in condition d)(6) below.

- (4) No inspection shall be necessary when the material handling activity(ies) is (are) not being conducted, when there is snow and/or ice cover, and/or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned visible fugitive PE limitation. Any required inspection that is not performed due to any of the above identified events shall be performed during the next inspection pursuant to the minimum inspection frequency.
- (5) The purpose of the material handling activity(ies) inspections is to determine the need for implementing the control measures specified in this permit to minimize and eliminate visible emissions of fugitive dust from the activities. The inspections shall be performed during representative, normal landfill operating conditions.
- (6) The permittee shall maintain a daily operations log which lists all of the above landfill activities (Note that if the records required in this Term and Condition exactly duplicate any records required under the facility's Division of Solid and Infectious Waste Management (DSIWM) permit, the DSIWM record will suffice to meet this Term and Condition). The daily operations log shall clearly indicate/contain the following:
- a. the date and whether an inspection was performed and, if not performed, the reason why the inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the activities which were in operation;
 - c. each activity where it was determined by the person conducting the inspection that it was necessary to implement the control measures to meet the above-mentioned visible fugitive PE limitation;
 - d. whether control measures were employed to minimize or eliminate visible emissions of fugitive dust; and

- e. with regards to the waste handling activities, the amount, in tons, of waste material accepted for disposal.
- (7) The permittee shall maintain an annual cumulative (calendar year) record to be updated quarterly:
 - a. of days inspections were not performed by the required frequency; and
 - b. of days in which control measures were determined to be necessary by an inspector, but were not implemented.
 - (8) See 40 CFR Part 60, Subpart WWW (40 CFR Part 60.750-759)
 - (9) See 40 CFR Part 63, Subpart AAAA (40 CFR Part 63.1930-1990)
 - (10) See 40 CFR part 61, Subpart M (40 CFR 61.140-157)
- e) Reporting Requirements
- (1) The permittee shall submit a notification to Canton LAA within 30 days of any monthly record indicating total amount of landfill gas, in scf, combusted in all of the control devices exceeds the amount specified in b)(2)i.
 - (2) The permittee shall submit a report to Canton LAA within 30 of obtaining the results of the sampling conducted in accordance with d)(1) indicating the heat content exceeds the amount specified in b)(2)i.
 - (3) The permittee shall submit an annual report by April 15th of each year, covering the previous calendar year detailing the amount of landfill gas, in scf, collected from landfill, the amount of landfill gas, in scf, input to each individual control device, the number of hours that each individual control device operated, the amount in tons of waste material accepted for disposal for each month, and the total for that calendar year. These reporting requirements may be satisfied by including and identifying this information in the annual Fee Emissions Report.
 - (4) See 40 CFR Part 60, Subpart WWW (40 CFR Part 60.750-759)
 - (5) See 40 CFR Part 63, Subpart AAAA (40 CFR Part 63.1930-1990)
 - (6) See 40 CFR part 61, Subpart M (40 CFR 61.140-157)
 - (7) By January 31 of each year, the permittee shall submit an annual report that identifies any of the following occurrences relating to inspections of landfill activities during the previous year:
 - a. each day during which an inspection was not performed by the required frequency; and
 - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

f) Testing Requirements

- (1) Fugitive landfill emissions resulting from the biological breakdown of organic wastes shall not exceed the values shown in Section b)(1)b. which are based on calculations described below. These calculations represent the highest emission rates which could occur based on landfill gas emission rates predicted by a maximum annual rate of waste material accepted for disposal of 2,847,000 tons, the U.S. EPA's Landfill estimation program (LANDGEM), AP-42 and other emission factors, a capture efficiency of 85% (10% greater than AP-42 default value) for the gas collection and control system, an assumption that 28% of the wastes disposed are inert and are not broken down to create landfill gas, and other assumptions contained in the application.

The resulting fugitive emissions were predicted:

a. Emission Limitation:

Fugitive emissions of non-methane organic compounds (NMOC) shall not exceed 86.8 tons/year.

Applicable Compliance Method:

NMOC: Emissions were predicted by USEPA's LANDGEM model.

b. Emission Limitation:

Fugitive emissions of methane (CH₄) shall not exceed 8,295 tons/year.

Applicable Compliance Method:

CH₄: Emissions were predicted by USEPA's LANDGEM model and AP-42, Section 2.4.

c. Emission Limitation:

Fugitive emissions of volatile organic compounds (VOC) shall not exceed 33.9 tons/year.

Applicable Compliance Method:

VOC: Emissions were calculated based on predictions from USEPA's LANDGEM model and AP-42 equations.

d. Emission Limitation:

Fugitive emissions of hazardous air pollutants (HAP) shall not exceed 69.2 tons/year.

Applicable Compliance Method:

HAP: Emissions were calculated based on predictions from USEPA's LANDGEM model and AP-42 equations.

e. Emission Limitation:

Fugitive emissions of any individual HAP shall not exceed 21.8 tons/year.

Applicable Compliance Method:

HAP: Emissions were calculated based on predictions from USEPA's LANDGEM model and AP-42 equations.

(2) Emission Limitation:

Particulate emissions (PE) from the MSW landfill operations shall not exceed 1.63 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by employing the emission factors derived from the equations in AP-42, Compilation of Air Pollution Emission Factors, Chapter 13.2.4 (November 2006), for all material handling and storage piles.

Maximum potential uncontrolled emission rates for material handling and storage piles were calculated by using worst case calculations contained in the application based upon material handling being performed to support 7,800 tons per day (TPD) waste acceptance rate (Allowable Maximum Daily Waste Receipt).

(3) Emission Limitation:

Visible fugitive particulate emissions from operations shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

No visible emission observations are specifically required to demonstrate compliance with the visible emission limitation but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A).

(4) The following emission limitations are applicable to landfill gas control device(s):

a. Emission Limitation:

3.89 lbs of particulate matter less than 10 microns (PM₁₀)/hour; 17.02 tons of PM₁₀/year.

Applicable Compliance Method:

Compliance with the above hourly emission limitation shall be determined using the following calculation:

$$\frac{8,466 \text{ dry ft}^3}{\text{Minute}} \times \frac{0.45 \text{ ft}^3 \text{ CH}_4}{\text{ft}^3 \text{ LFG}} \times \frac{17 \text{ lbs PM}^*}{1,000,000 \text{ ft}^3 \text{ CH}_4} \times \frac{60 \text{ minutes}}{\text{hour}} \leq 3.89 \text{ lbs/hr}$$

*AP-42, Section 2.4, Municipal Solid Waste Landfills [11/98] (all PM is assumed to be PM₁₀)

Flow rate and percent methane is based upon potential for landfill gas provided in the PTI application.

Compliance with the annual emission limitation is determined by using the records contained in section d) above and the constants used in the short term limit calculations. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

b. Emission Limitation:

91.9 lbs of CO/hour; 402.6 tons of CO/year

Applicable Compliance Method:

Compliance with the above hourly emission limitation shall be determined using the following calculation:

$$\frac{9,202 \text{ ft}^3}{\text{Minute}} \times \frac{450 \text{ Btu}}{\text{ft}^3 \text{ LFG}} \times \frac{0.37 \text{ lbs CO}^*}{1,000,000 \text{ Btu}} \times \frac{60 \text{ minutes}}{\text{hour}} \leq 91.9 \text{ lbs/hr}$$

*This value has been established based upon a manufacturer's performance guarantee.

Flow rate and heat content are based upon potential of landfill gas as provided in the PTI application.

Compliance with the annual emission limitation is determined by using the records contained in section d) above and the constants used in the short term limit calculations. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

c. Emission Limitation:

16.89 lbs of NO_x/hour; 74.0 tons of NO_x/year

Applicable Compliance Method:

Compliance with the above hourly emission limitation shall be determined using the following calculation:

$$\frac{9,202 \text{ ft}^3}{\text{Minute}} \left| \frac{450 \text{ Btu}}{\text{ft}^3 \text{ LFG}} \right| \left| \frac{0.068 \text{ lbsNO}_x^*}{1,000,000 \text{ Btu}} \right| \left| \frac{60 \text{ minutes}}{\text{hour}} \right| \leq 16.89 \text{ lbs/hr}$$

*This value has been established based upon a manufacturer's performance guarantee.

Flow rate and heat content are based upon potential of landfill gas provided in the PTI application.

Compliance with the annual emission limitation is determined by using the records contained in section d) above and the constants used in the short term limit calculations. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

d. Emission Limitation:

4.58 lbs of SO₂/hour; 20.06 tons of SO₂/year

Applicable Compliance Method:

Compliance with the above hourly emission limitation shall be determined using the following calculation:

$$\frac{9,202 \text{ ft}^3}{\text{Minute}} \left| \frac{49.16 \text{ ppmv}^*}{1,000,000 \text{ MMscf/scf}} \right| \left| \frac{64.066_1}{(0.7302_2 \times 520_3)} \right| \left| \frac{60 \text{ minutes}}{\text{hour}} \right| \leq 4.58 \text{ lbs/hr}$$

*Sulfur concentration in the exhaust gas from AP-42 = 49.16 ppmv based upon 99.7% landfill gas control efficiency (represents worst-case emissions for SO₂)

- ¹ molecular wt of SO₂
- ² universal gas constant
- ³ temperature

Flow rate and SO₂ concentration are based upon potential of landfill gas provided in the PTI application.

Compliance with the annual emission limitation is determined by using the records contained in section d) above and the constants used in the short term limit calculations. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

e. Emission Limitation:

2.25 lbs of NMOC/hour; 9.85 tons of NMOC/year

Applicable Compliance Method:

The hourly compliance emission limitation was established by the following calculation:

$$\frac{5,500 \text{ ft}^3}{\text{Minute}} \left| \frac{1,500 \text{ ppmv}^*}{1,000,000 \text{ MMscf/scf}} \right| \left| \frac{86.18_1}{(0.7302_3 \times 520_4)} \right| \left| \frac{60 \text{ minutes}}{\text{hour}} \right| \left| (1-0.98)_2 \right| = 2.25 \text{ lbs/hr}$$

Flow rate and NMOC concentration are based upon potential of landfill gas provided in the PTI application. A value of 5,500 scfm and 1,500 ppmv was selected based upon current conditions and landfill gas NMOC concentrations which are assumed to be worst case.

Compliance with the above hourly emission limitation shall be determined using the following calculation:

$$\frac{\text{Flow in ft}^3}{\text{Minute}} \left| \frac{\text{NMOC concentration ppmv}^*}{1,000,000 \text{ MMscf/scf}} \right| \left| \frac{86.18_1}{(0.7302_3 \times 520_4)} \right| \left| \frac{60 \text{ minutes}}{\text{hour}} \right| \left| (1-0.98)_2 \right| \leq 2.25 \text{ lbs/hr}$$

- * NMOC concentration in inlet gas. Based on historic site data = 1,500 ppmv.
- ¹ molecular wt of NMOC as hexane
- ² control efficiency of the control device(s)
- ³ universal gas constant
- ⁴ temperature

Compliance with the annual emission limitation is determined by using the records contained in section d) above and the constants used in the short term limit calculations. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

f. Emission Limitation:

1.88 lbs of VOC/hour; 8.25 tons of VOC/year

Applicable Compliance Method:

The hourly compliance emission limitation was established by the following calculation:

$$\frac{108,244_6}{1,000,000 \text{ MMscf/scf}} \left| \frac{5,500 \text{ scfm}}{(0.7302_3 \times 520_4)} \right| \left| \frac{60 \text{ min}}{\text{hour}} \right| \left| (1-0.98)_2 \right| = 1.88 \text{ lbs/hr}$$

Compliance with the above hourly emission limitation shall be determined using the following calculation:



Flow in ft ³	NMOC concentration ppmv*	86.18 ₁	60 minutes	(1-0.98) ₂	0.39 ₅	≤ 1.88 lbs/hr
Minute	1,000,000 MMscf/scf	(0.7302 ₃ x 520 ₄)	hour			

- * NMOC concentration in inlet gas. Based on historic site data = 1,500 ppmv.
- ¹ molecular wt of NMOC as hexane
- ² control efficiency of the control device(s)
- ³ universal gas constant
- ⁴ temperature
- ⁵ percentage of VOC in NMOC landfill gas (AP-42)
- ⁶ Sum of all VOC compounds (molecular wt. * concentration) = 108,244; as provided in PTI application

Compliance with the annual emission limitation is determined by using the records contained in section d) above and the constants used in the short term limit calculations. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

g. Emission Limitation:

2.23 lbs of HCl/hour; 9.77 tons of HCl/year

Applicable Compliance Method:

Compliance with the above hourly emission limitation shall be determined using the following calculation:

9,202 ft ³	42 ppmv*	36.5 ₁	60 minutes	≤ 2.23 lbs/hr
Minute	1,000,000 MMscf/scf	(0.7302 ₂ x 520 ₃)	hour	

- *HCl concentration in the exhaust gas from AP-42 = 42.0 ppmv (represents the worst-case emissions for HCl)
- ¹ molecular wt of HCl
- ² universal gas constant
- ³ temperature

Flow rate is based upon potential of landfill gas provided in the PTI application.

Compliance with the annual emission limitation is determined by using the records contained in section d) above and the constants used in the short term limit calculations. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

h. Emission Limitation:

4.37 lbs of Total HAPs/hour; 19.1 tons of HAP/year



Applicable Compliance Method:

Compliance with the above hourly emission limitation shall be determined using the following calculation:

$$\frac{9,202 \text{ ft}^3}{\text{Minute}} \left| \frac{\text{HAP conc.} \times \text{MW}^*}{1,000,000 \text{ MMscf/scf}} \right| \left| \frac{1}{(0.7302_1 \times 520_2)} \right| \left| \frac{60 \text{ minutes}}{\text{hour}} \right| \leq 4.37 \text{ lbs/hr}$$

*Sum of all HAP compounds (molecular wt. * concentration in ppmv) from the AP-42 inventory listing
¹universal gas constant
²temperature

Flow rate is based upon potential of landfill gas provided in the PTI application.

Compliance with the annual emission limitation is determined by using the records contained in section d) above and the constants used in the short term limit calculations. The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

i. Emission Limitation:

No visible emissions from the open flare, except for periods not to exceed a total of 5 minutes, during any 2 consecutive hours.

Applicable Compliance Method:

Compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 22, and procedures specified in 40 CFR Part 60.18. Alternative test procedure for LFG open flare VEs may follow the USEPA letter ALT042 to shorten the RM22 to 30 minutes per flare.

If appropriate, Method 22 may be required pursuant to OAC rule 3745-15-04(A).

- (5) No testing is specifically required as part of this permit to install. The initial performance testing has been conducted to demonstrate that the current control device can operate in conformance with the requirements specified in 40 CFR Part 60.18.

However, if subsequently required, the permittee shall conduct or have conducted additional performance test(s) to demonstrate that the flare(s) can operate in conformance with the requirements specified below:

- a. For an open flare, a performance test shall be conducted to demonstrate compliance with the requirements specified in 40 CFR 60.18. The net heating value of the gas being combusted in the flare and the actual exit velocity of the flare shall be determined in accordance with the procedures and methods specified in 40 CFR Part 60.18 and 40 CFR Part 60.754(e). The visible emission evaluations shall be conducted in accordance with the procedures specified in section f)(4)i.
- (6) After the installation of a collection and control system in compliance with 40 CFR Part 60.755, the permittee shall calculate the NMOC emission rate for the purposes of determining when the system can be removed as provided in 40 CFR Part 60.752(b)(2)(v) in accordance with the equation and procedures specified in 40 CFR Part 60.754(b), (b)(1), and (b)(2). The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Ohio EPA as provided in 40 CFR Part 60.752(b)(2)(i)(B).
- g) Miscellaneous Requirements
 - (1) Additional Terms and Conditions for P901 Remediation Unit (Cells 1 – 6)
 - (a) If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of 60.753 are not met, corrective action shall be taken as specified in §60.755(a)(3) through (5) or §60.755(c) of this subpart. If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements in this section.

Between 1993 and 2006, Countywide received 17,000,000 cubic yards of waste; approximately 600,000 tons of which consisted of non-hazardous industrial aluminum process waste. The majority of the aluminum waste material was described as “dross” and “salt cake” which are by-products from melting recycled aluminum with a salt flux. Smaller quantities of aluminum-containing baghouse dust materials were also disposed. All of the dross and salt cake was disposed in the original 88-acre portion of the facility. Some baghouse dust is present in Cell 7 which is now part of the 170 acre operational unit.

Beginning in 2001, Countywide noted elevated temperatures in some gas wells and submitted higher operating value (HOV) requests to the Canton LAA. In 2004, Countywide expanded the gas collection and control system (GCCS) in response to citizen odor complaints.

Then, in 2006, Countywide observed a rather sudden and unusual temperature increase in many gas extraction wells, forceful leachate outbreaks, accelerated settlement, and odors. Countywide also discovered changes in landfill gas composition, including a decrease in methane, and an increase in hydrogen concentrations and carbon monoxide. These were ultimately attributed to a reaction between the aluminum wastes and liquid and to the effects of the aluminum waste reaction interacting with the solid wastes which were also disposed in the landfill.

Throughout 2006, Countywide initiated numerous activities to reduce odor generation from the landfill including placement of 30 acres of temporary exposed geomembrane cap. However, odor generation was not completely abated. Subsequent agency orders, work plans, studies, etc. ensued—all aimed at eliminating the odor and, if possible, remediating the causes of the odor. A compiled list and chronology of major orders and actions is provided below:

September 6, 2006 Ohio EPA DFFOs –The Director determined the site was an air pollution nuisance, and required certain actions to control, monitor and characterize odors.

March 28, 2007 Ohio EPA DFFOs – The Director defined a “fire” as “rapid thermal decomposition of solid waste producing carbon monoxide in excess of 1,000 ppmv” and thus declared that the facility violates OAC Rule 3745-27-19(E)(3)(a), and also concluded that the facility continued to be an air pollution nuisance. The Orders required significant sampling and analyses to characterize the reaction and its byproducts and side-effects, ordered implementation of a community ambient air monitoring system, and requested a number of study reports including a Fire Suppression Plan. It also established penalties and control mechanisms for future enforcement. These DFFOs superseded the September 6, 2006 DFFOs.

October 1, 2007 Ohio EPA– Required creating a “firebreak” between Cell 8A and 8B, and ceasing filling in Cell 7 and 8A.

November 7, 2007 Ohio EPA DFFOs – Required dewatering by adding pumps to gas extraction wells to improve gas collection efficiency. Also required additional scientific studies.

December 6, 2007 Modification to November 07, 2007 DFFOs – Suspended some of the time frames and requirements in the November 7, 2007 DFFOs.

December 31, 2007 Ohio EPA DFFOs – Superseded portions of the November 07, 2007 DFFOs, and requested revised, increased dewatering including installing deeper remediation wells (RWs).

February 7, 2008 Ohio EPA DFFOs – Required changes to the community ambient air monitoring program including sampling for dioxins and furans.

April 11, 2008 U.S. EPA Administrative Settlement Agreement and Order on Consent for Removal Action (AOC) – Required isolating and containing the reaction through capping and redirection of reaction gases away from Cell 7. The AOC also required on-site, real-time continuous ambient air monitoring and sampling.

June 5, 2008 Countywide Report – At the request of the Ohio EPA, Countywide performed an investigation and then submitted a report regarding the 2006 waste slope movement. The report concluded that a limited portion of the south slope had moved up to 20’ outside the permitted waste disposal limits.

October 24, 2008 U.S. EPA Letter – Requested Countywide to submit a Work Plan for the construction of a physical separation (Isolation Break) to “achieve complete separation, full containment and isolation of the ongoing reaction affecting Cells 1-6.”

November 19, 2008 U.S. EPA Letter – Approved the Work Plan for construction of an Isolation Break.

December 30, 2008 Letter – A letter from the Ohio EPA Enforcement Coordinator approved a requested reduction in certain sampling and analytical requirements per the March 28, 2007 DFFOs.

January 13, 2009 U.S. EPA Letter – Requested Countywide submit a Work Plan for placement of composite cap over Cells 1-3.

May 29, 2009 Ohio EPA DFFOs – Requires submitting a PTI modification application by June 01, 2010.

By July 2009, the temporary capping had been accomplished and the Isolation Break had been completed. The U.S. EPA concluded the Isolation Break had achieved a full and complete separation of waste, leachate, and gas between the 88-acre unit and the 170-acre unit. This “bifurcation” resulted in the creation of the two non-contiguous units.

- (b) Numerous corrective actions were continuously employed to manage and contain the reaction during the period beginning in February 2006 through the issuance of this permit. The corrective actions include but are not limited to the following:

Installation of abundant new vertical wells, replacement vertical wells, and new “other” collectors.

- i. Continual routine maintenance, installation of new sections of header piping, and repair of sagged lateral piping to maintain and/or improve the LFG flow to the flares;
- ii. Flares were routinely evaluated, maintained and cleaned to assure continued efficient operation;
- iii. Continuous monitoring, tuning, and evaluation of the well field to maintain operational parameters within acceptable ranges;
- iv. Installation of oversized and enhanced condensate and leachate removal systems.
- v. Bifurcation of the remediation and the operational units of the landfill to isolate the reaction area.

- vi. Installation of a composite liner system over affected portions of the remediation unit.
- vii. Establishment of an OM&M plan to which the facility is required to comply until such time that the OM&M plan is determined to no longer be necessary.

The above corrective measures continue to be employed and sustained to maintain on going compliance. These corrective measures constitute an appropriate higher operating value (HOV) demonstration which complies with the requirements of 40 CFR Part 60.753(c). By adhering to the requirements of the OM&M plan, the permittee is exempted from the requirement to demonstrate that anaerobic decomposition is not inhibited.

- (c) The monitoring points that are reaction affected are not required to comply with the standard requirements of 40 CFR Part 60.753(c). The applicable requirements associated with the reaction affected monitoring points are contained in g)(1)c.
 - i. All monitoring points located in the capped portion of the Remediation Unit are considered to be reaction affected.

Note: The primary byproduct of the reaction occurring within the Remediation Unit is the production of heat well above that produced by normal methanogenesis. Therefore, the regulatory threshold of 131°F is not currently achievable for many monitoring points located within the Remediation Unit. The monitoring points determined to be affected by the reaction are not considered violations of the regulatory threshold for temperature.

- (d) Any monitoring point installed as a new or replacement monitoring point within the limit of reaction will be considered a reaction affected monitoring point; therefore, not part of g)(2) through (6).
- (e) The Standard Operating Procedure (SOP) outlined in g)(2) through (6) applies ONLY to monitoring points that are located within the Remediation Unit and are NOT currently affected by the reaction occurring in the Remediation Unit. For purposes of this SOP, monitoring points include vertical extraction wells, horizontal collectors, leachate risers, etc. that are connected to the GCCS. This SOP incorporates aspects of the Operation, Maintenance, and Monitoring (OM&M) Plan, Title V permit conditions, and New Source Performance Standards (NSPS). Pursuant to 40 CFR 60.753(c) and Countywide's Title V permit, Countywide shall operate each monitoring point within the GCCS with a landfill gas (LFG) temperature less than 131 degrees Fahrenheit (°F).
- (f) Reaction Affected Monitoring Points - Monitoring points affected by the reaction may exhibit the following characteristics.
 - i. Significant increase in LFG temperature - The primary byproduct of the reaction is the production of heat.

- ii. Presence of hydrogen - Hydrogen is a major factor in determining whether or not the monitoring point is being affected by the reaction since the reaction produces hydrogen.
 - iii. Elevated pressure - The reaction causes higher-than-normal pressure adjacent to the reacting waste mass.
 - iv. Elevated liquid levels - The reaction causes a drying of waste which results in a steam/water vapor front moving out, up, and away from the reaction which then condenses in the leachate collection system, cooler surrounding waste mass, and gas extraction wells, resulting in extremely high leachate generation.
 - v. Decreased methane concentration and increase in carbon dioxide concentration - The reaction causes a reduction in methane that is due to the elevated temperatures.
- (2) Operational Restrictions
- a. OM&M Plan.
- (3) Monitoring and/or Recordkeeping Requirements
- a. On a weekly basis, Countywide technicians shall monitor each monitoring point in the Remediation Unit for methane, carbon dioxide, oxygen, balance gas, pressure, temperature, and flow using a Landtec GEM 2000. If an exceedance of NSPS §60.753(c) (temperature $\geq 131^{\circ}\text{F}$) is noted at a monitoring point that is not affected by the reaction (refer to g)(2)c. through e.), Countywide will follow the re-monitoring requirements per NSPS §60.755(a)(5). Countywide will initiate corrective actions to the monitoring point within 5-days from the initial exceedance date. If a temperature exceedance is still noted, Countywide will make additional adjustments and re-monitor the well within 15-days from the initial exceedance date.
 - b. If the temperature is less than 131°F within 15 days from the initial exceedance date, no additional monitoring is required until the next routine monitoring event.
 - c. If the temperature is greater than 131°F for more than 15 days from the initial exceedance date, Countywide shall complete the following within 30 days from the date of the initial exceedance.
 - i. Visually inspect area for settlement, charred or cracked surface cover, stressed or dead vegetation, and for smoke or smoky odor emanating from the landfill surface or monitoring point.
 - ii. Compare LFG concentrations with the previous 6 months of readings for the monitoring point.
 - iii. Perform the analysis as required in g)(5)b. through c.

The above data shall be collected to determine if the monitoring point is either a g)(1)f. monitoring point or whether it is a standard NSPS exceedance. Based on the results, continue monitoring the monitoring point in accordance with g)(3)d. or e.

- d. If the monitoring point is determined to meet the description in g)(1)f., Countywide shall begin implementing the monitoring requirements in the OM&M Plan.
- e. If the monitoring point is determined to a standard NSPS exceedance, Countywide shall follow §60.753(c) for establishing a higher operating value for the monitoring point.
- f. If the temperature is greater than the 210°F, implement the “Gas Well Assessment Protocol - Non Typical Temperature” procedures located in the OM&M Plan Volume 2, Appendix E.
- g. Refer to the OM&M Plan Volume 1, Section 6.6 and Volume 2, Appendix J for recordkeeping procedures concerning items g)(3)a. through f. above.

(4) Reporting Requirements

- a. Countywide shall submit an e-mail notification to Canton LAA within 2 days after the 15th day from the date of the initial exceedance, with the exception of g)(1)c. The following information shall be included in the e-mail notification.
 - i. Monitoring point identification
 - ii. Date of initial temperature exceedance
 - iii. Temperature reading
- b. Countywide shall submit a report of the findings based upon the analysis required per g)(3)c to the Canton LAA within 60 days from the initial exceedance date. The report shall contain the following information:
 - i. Summary of results
 - ii. Determination of well status using the description in g)(1)f as guidelines
- c. The permittee shall submit deviation reports that identify any monitoring point that exceeds 131°F. The deviation report must contain a list identifying which monitoring points are affected by the reaction and which monitoring points are not reaction affected.
- d. The deviation reports shall be submitted in accordance with the requirements specified in Part A– Standard Terms and Conditions.

- (5) Testing Requirements
- a. Compliance Method for Monitoring Landfill Gas in Monitoring Points

Refer to Volume 2, Section 2.2 of the OM&M Plan and follow the "Wellhead Measurement and Adjustment Procedure" included in Appendix I of Volume 2 of the OM&M Plan
 - b. Compliance Method for Determining Hydrogen Content of Landfill Gas
 - i. Use method ASTM D-1946. Countywide will follow the sampling procedures included in OM&M Plan Volume 1, Appendix F.
 - c. Compliance Method for Determining Liquid Levels
 - i. Use the procedures from the OM&M Plan Volume 2, Appendix K.
- (6) Modeling to demonstrate compliance with, the Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), is not required. In accordance with ORC 3704.03(F)(4)(e) (in part), ..."Review of New Sources of Air Toxics Emissions, Option A" ...**do not apply to an air contaminant source that is subject to a maximum achievable control technology standard.** The emissions unit is subject to 40 CFR Part 60 Subpart WWW and 40 CFR Part 63 Subpart AAAA.