



7/16/2014

Mr. Donald Moses  
Hancock County Landfill  
c/o Hancock County Commissioners  
300 South Main Street  
Findlay, OH 45840

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0332010095  
Permit Number: P0116927  
Permit Type: Administrative Modification  
County: Hancock

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) 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. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

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  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

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. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)3528461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

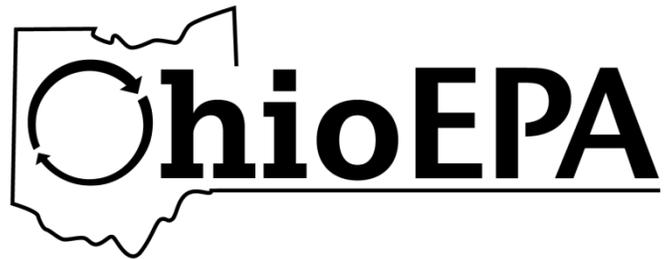
Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
Ohio EPA-NWDO; Michigan; Indiana; Canada



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
Hancock County Landfill**

Facility ID:	0332010095
Permit Number:	P0116927
Permit Type:	Administrative Modification
Issued:	7/16/2014
Effective:	7/16/2014





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Hancock County Landfill

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**Final Permit-to-Install**  
Hancock County Landfill  
**Permit Number:** P0116927  
**Facility ID:** 0332010095  
**Effective Date:** 7/16/2014

## Authorization

Facility ID: 0332010095  
Facility Description: Municipal Solid Waste Landfill  
Application Number(s): A0050569, A0050834  
Permit Number: P0116927  
Permit Description: Administrative modification to revise provisions for Alternative Timeline Requests to respond to landfill gas collection system wellhead positive pressure.  
Permit Type: Administrative Modification  
Permit Fee: \$0.00  
Issue Date: 7/16/2014  
Effective Date: 7/16/2014

This document constitutes issuance to:

Hancock County Landfill  
10400 Allen Township Road 107  
Findlay/Allen Township, OH 45840

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

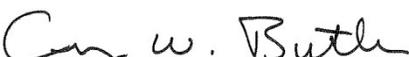
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402  
(419)352-8461

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

  
Craig W. Butler  
Director



**Final Permit-to-Install**  
Hancock County Landfill  
**Permit Number:** P0116927  
**Facility ID:** 0332010095  
**Effective Date:** 7/16/2014

## Authorization (continued)

Permit Number: P0116927  
Permit Description: Administrative modification to revise provisions for Alternative Timeline Requests to respond to landfill gas collection system wellhead positive pressure.

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

<b>Emissions Unit ID:</b>	<b>P902</b>
Company Equipment ID:	Active Collection
Superseded Permit Number:	P0109481
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Hancock County Landfill  
**Permit Number:** P0116927  
**Facility ID:** 0332010095  
**Effective Date:** 7/16/2014

## **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) 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 Ohio EPA DAPC, Northwest District Office.



- (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 Ohio EPA DAPC, Northwest District Office. 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 to the Ohio EPA DAPC, Northwest District Office 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 Ohio EPA DAPC, Northwest District Office 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) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted



local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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.

- b) 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.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office 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 Ohio EPA DAPC, Northwest District Office.
- 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 Ohio EPA DAPC, Northwest District Office. 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, 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) not exempt from the requirement to obtain a Permit-to-Install.

**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 permittee 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 "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director 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.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- 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 operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.



**13. Construction Compliance Certification**

The applicant shall identify the following dates in the "Air Services" 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 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.



**Final Permit-to-Install**  
Hancock County Landfill  
**Permit Number:** P0116927  
**Facility ID:** 0332010095  
**Effective Date:** 7/16/2014

## **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. Based on the Landfill Gas Emission Model (LandGEM), this facility (Hancock County Landfill) will not exceed an emission rate of 50 megagrams per year of NMOC for the duration of the life of the landfill. Therefore, based on the current capacity and annual waste acceptance rate, the permittee will not trigger the requirements of 40 CFR Part 60, Subpart WWW to collect and control the landfill gas. The permittee installed an active gas collection system with an open flare for the primary purpose of distributing landfill gas to off-site facilities where the landfill gas will be combusted to generate heat and/or electricity. The installation of the active gas collection system is addressed under the requirements for emissions unit P902. The facility has the option to also operate the landfill under passive conditions which are addressed under the requirements of emissions unit P901.
3. To address the time periods when the permittee is under contract to provide landfill gas to off-site facilities, this facility will operate under the terms and conditions provided for in both this emissions units P902 which addresses an active gas collection system and emissions unit P901 which addresses landfill operations not directly associated with an active gas collection system. During time periods when the permittee is not actively collecting landfill gas, this facility will operate under the terms and conditions provided for in emissions unit P901. Emissions unit P902 serves to present, in a simplified manner, the additional requirements associated with the installation and operation of an active gas collection system. It should be noted that the requirements presented under emissions unit P901 are in effect at all times even when the landfill is operated with an active gas collection system.
4. The permittee shall maintain daily records that identify whether the landfill is operating with an active gas collection system with control (active system) or as a passive venting system without control (passive system).
5. The permittee shall submit annual reports that summarize (a) the time periods when the landfill was operated as an active system and (b) the time periods when the landfill was operated as a passive system. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.



**Final Permit-to-Install**  
Hancock County Landfill  
**Permit Number:** P0116927  
**Facility ID:** 0332010095  
**Effective Date:** 7/16/2014

## **C. Emissions Unit Terms and Conditions**



**1. P902, Active Collection**

**Operations, Property and/or Equipment Description:**

Municipal Solid Waste Landfill (no asbestos waste) - active gas collection/ flare system

- 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) b)(1)f, b)(1)g, b)(2)f, b)(2)i through b)(2)m; c)(1) through c)(4); d)(1) through d)(6); e)(1), e)(2), e)(4); f)(1), f)(2); and g)(2).
- 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
a.	ORC 3704.03(T)	<u>Flare Combustion Emissions:</u> 46.0 pounds carbon monoxide (CO) per mmDSCF methane  39.0 pounds nitrogen oxides (NO <sub>x</sub> ) per mmDSCF methane  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b., b)(2)c., and b)(2)d.  <u>Controlled Landfill Gas Emissions:</u> 0.25 pound volatile organic compounds (VOC) /hour; 1.10 tons VOC /year  <u>Flare Combustion Emissions:</u> 15.0 pounds PM <sub>10</sub> per mmDSCF methane; 3.69 tons PM <sub>10</sub> /year  0.45 pounds sulfur dioxide (SO <sub>2</sub> )/hour; 2.00 tons SO <sub>2</sub> /year
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06 (PTI P0109481 issued July 16, 2012)	See b)(2)e.
d.	40 CFR 60.750 et seq. (NSPS Subpart WWW)	See b)(2)c.
e.	40 CFR 63.1930 et seq. (MACT Subpart AAAA)	See b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-31-05(E)	See b)(2)f.  Visible Emission Limitation [See b)(2).i.]
g.	ORC 3704.03(F) OAC rule 3745-114-01	See g)(2)
h.	OAC rule 3745-17-07(B)(1)	See b)(2)g.
i.	OAC rule 3745-17-08(B)	See b)(2)h.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements for this emissions unit have been determined to be compliance with the emission limitations established in b)(1)a.
- b. The VOC emission limitations represent the VOC portion of the fugitive and controlled nonmethane organic compound (NMOC) emission rates from the landfill. For the purpose of this permit and federal enforceability, NMOC emissions have been converted to VOC by applying the AP-42 Chapter 2.4 (11/98) conversion rate of 39% to the predicted NMOC emission rate from the Landfill Gas Emission Model (LandGEM). NMOC emission limits were not established under this rule because there is not an established national ambient air quality standard (NAAQS) associated with NMOC [See b)(2)e.]. 40 CFR 60.750 et seq. (NSPS, Subpart WWW) addresses NMOC emissions; therefore, the monitoring, recordkeeping, and reporting requirements of this permit will reflect NMOC rather than VOC.
- c. BAT requirements that were established in Permit-to-Install (PTI) 03-17102 issued final on May 4, 2006 remain in effect for Hancock County Landfill when operating under active gas collection and/or passive gas venting situations. The requirements of 40 CFR 60.750 et seq. (NSPS Subpart WWW) and 40 CFR 63.1930 et seq. (MACT Subpart AAAA) also remain in effect when operating under active gas collection and/or passive gas venting situations.  
  
The requirements for OAC rule 3745-31-05(A)(3)(a), NSPS Subpart WWW, and MACT Subpart AAAA are contained in the terms and conditions for emissions unit P901. The permittee is required to comply with all requirements contained in the terms and conditions for emissions unit P901 at all times even when operating with active gas collection (See Facility-Wide Term and Condition B.3).
- d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. The requirements of this also rule include compliance with the state-only restrictions established in accordance with OAC rule 3745-31-05(E).

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate



Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by 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 requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

It should be noted that the landfill gas collection and control requirements established pursuant to OAC rule 3745-31-05(E) will remain applicable after the above SIP revisions are approved by U.S. EPA.

- e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the PE, NMOC, and methane emitted from this emissions unit. BAT (under Senate Bill 265 changes) is only applicable to emissions of an air contaminant or precursor of an air contaminant for which a national ambient air quality standard (NAAQS) has been adopted under the Clean Air Act. PE (also referred to as total suspended particulate or particulate matter), NMOC, and methane are air contaminants that do not involve an established NAAQS.

Additionally, the BAT requirements under OAC rule 3745-31-05(A)(3)(a) do not apply to the VOC, SO<sub>2</sub>, and PM<sub>10</sub> emissions from this air contaminant source because each pollutant is less than 10 tons per year.

- f. The Ohio EPA is imposing terms and conditions under OAC rule 3745-31-05(E) "State-only enforceable limitations" associated with the installation and operation of the voluntary active gas collection system (including a flare). The requirements of OAC rule 3745-31-05(E) contained in this permit are a necessary component of any approval by the Ohio EPA, Division of Solid and Infectious Waste Management associated with the facility's "alteration request" to PTI 03-10322. The following is a list of the terms and conditions enforceable under OAC rule 3745-31-05(E); b)(2)f, b)(2)i, b)(2)j, b)(2)k, b)(2)l, b)(2)m, c)(1) c)(2), c)(3), c)(4), d)(1), d)(2), d)(3), d)(4), d)(5), d)(6), e)(1), e)(2), e)(4) f)(1), and f)(2).

[OAC rule 3745-31-05(E)]

- g. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).
- h. The facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B)(1).
- i. All gas collected by the active gas collection system shall comply with at least one of the following requirements:



- i. the collected gas may be routed to a flare designed and operated in accordance with the requirements specified in b)(2)i., b)(2)j., and b)(2)k.

AND/OR

- ii. The collected gas may be routed to any number of destinations, which are not under the common control of the permittee, where landfill gas is used in an enclosed combustion device to generate heat and/or electricity.

[OAC rule 3745-31-05(E)]

- j. Flare requirements:

- i. Flare shall be designed and operated with no visible emissions as determined by the Method 22 of Appendix A of 40 CFR, Part 60, except for a period not to exceed a total of 5 minutes during any 2 consecutive hours. The observation period for compliance determination is 2 hours and shall be used according to Method 22.

- ii. Flare shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of flame.

- iii. The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

[OAC rule 3745-31-05(E)]

- k. Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_t = K \times \sum (i = 1 \text{ to } n) \text{ of } C_i H_i$$

where:

K = constant,  $1.740 \times 10^{-7}$  [(1/ppm)(g mole/scm)(MJ/Kcal)] where the standard temperature for (g mole/scm) is 20 degree Celsius;

$H_t$  = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 degree Celsius and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 degree Celsius;



$C_i$  = Concentration of sample component  $i$  in ppm on a wet basis, as measured for organics by 40 CFR 60 Appendix A Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in 40 CFR 60.17); and

$H_i$  = Net heat of combustion of sample component  $i$ , kcal/g mole at 25 degree Celsius and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated. For this test, the net heating value is calculated from the concentration of methane in the landfill gas as measured by 40 CFR 60 Appendix A Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic compounds, hydrogen, and carbon monoxide is not applicable.  
[OAC rule 3745-31-05(E)]

I. Flare requirements (cont.):

- i. Steam-assisted and non-assisted flares shall be designed for and operated with an exit velocity, as determined by dividing the volumetric flow rate (in units of standard temperature and pressure) as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip,) less than 18.3 m/sec (60 ft/sec), except as provided in 'ii' and 'iii' below.
- ii. Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by dividing the volumetric flow rate (in units of standard temperature and pressure) as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
- iii. Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by dividing the volumetric flow rate (in units of standard temperature and pressure) as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip, less than the velocity,  $V_{MAX}$ , as determined by the equation below, and less than 122 m/sec (400 ft/sec) are allowed.

$$\text{Log}_{10}(V_{MAX}) = (H_t + 28.8)/31.7$$

Where:

$V_{MAX}$  = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

$H_t$  = The net heating value as determined in b)(2)i.

[OAC rule 3745-31-05(E)]



- m. The collected gas may be routed to a flare that meets the requirements of 40 CFR 60 Subpart WWW as provided for in 40 CFR 60.18(c)(3)(i). [OAC rule 3745-31-05(E)]

c) Operational Restrictions

- (1) The following operational restrictions have been included in this permit for the purpose of establishing state-only requirements for the active gas collection system [See b)(2)d.):

- a. The permittee shall operate the collection system with negative pressure at each well except under the following conditions:
  - i. a fire or increased well temperature (the permittee shall record instances when positive pressure occurs in efforts to avoid a fire);
  - ii. use of a geomembrane or synthetic cover (the permittee shall develop acceptable pressure limits in the design plan); and
  - iii. a decommissioned well (A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by the Northwest District Office).

[OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(E)]

- b. The permittee shall operate each interior well in the collection system such that:
  - i. landfill gas temperature is less than 55 degrees Celsius (131 Fahrenheit); and
  - ii. nitrogen level is less than 20%, or oxygen level is less than 5%.
- c. If a well exceeds any of the operating parameters in c)(1)b or the negative pressure requirement as specified in c)(1)a, action\* shall be initiated to correct the exceedance within 5 calendar days.

If correction of the exceedance cannot be achieved within 15 calendar days, the permittee has the following options to address the exceedance:

- i. the permittee may take additional or alternative measures\* to correct the exceedance within 120 days of the initial exceedance.
- ii. the permittee may submit an alternative timeline request (ATR) for correcting an exceedance to the Northwest District Office. The alternative timeline request shall be submitted in accordance with timeframes and procedures outlined in Ohio EPA guidance documents. ATRs shall be submitted for approval to the Ohio EPA in accordance with timeframes and procedures outlined in Ohio EPA guidance documents.
- iii. The permittee may request a higher operating temperature, nitrogen, or oxygen value at a particular well through a "Higher Operating Value (HOV) Demonstration". HOV requests shall be submitted for approval to



the Ohio EPA in accordance with timeframes and procedures outlined in Ohio EPA guidance documents.

\*Any attempted corrective action and/or measure shall not cause exceedances of other operational or performance standards. The permittee should be advised that certain corrective actions and/or measures may require approval(s) of an "alteration request" and/ or permit modifications from the appropriate Ohio EPA divisional programs.

- (2) In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour.

In any implementation of the above requirement, when the collection and control system is inoperable and the system will not be back in service before the vacuum in the landfill is displaced, the permittee shall be allowed to remove the wellheads prior to the build-up of landfill gas that can cause any damage to the capping system or contribute to offsite migration.

- (3) The permittee shall operate the flare at all times when the collected gas is routed to the system.
- (4) A pilot flame shall be maintained at all times in the flare's pilot burner, or a fail-close valve shall be installed to cease gas flow to the flare when there is no flame present.

d) Monitoring and/or Recordkeeping Requirements

- (1) For the active gas collection system, the permittee shall install a sampling port for each well and record the following information on a monthly basis:
  - a. the gauge pressure in the gas collection header at each individual well;
  - b. the nitrogen or oxygen concentration in the landfill gas; and
  - c. the temperature of the landfill gas.
- (2) The permittee shall install, calibrate, maintain, and operate the following equipment in accordance with the manufacturer's specifications:
  - a. a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and
  - b. a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes.
- (3) If a gas flow rate measuring device is not installed, then the permittee shall secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.



- (4) The permittee shall maintain the following information for the life of the control equipment as measured during, if applicable, the initial performance test or compliance demonstration:
    - a. the flare type (i.e., steam-assisted, air-assisted, or non-assisted);
    - b. all visible emission readings;
    - c. heat content determinations of the gas;
    - d. flow rate or bypass flow rate measurements;
    - e. exit velocity determinations made during the performance test as specified in 40 CFR Part 60.18; and
    - f. continuous records of the flare flame monitoring and all periods of operation during which the flare flame is absent.
  - (5) The permittee shall properly install, operate, and maintain a device to continuously monitor the flare flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. In addition, the permittee shall record the following information each day:
    - a. all periods of time during which there was no flame; and
    - b. the downtime for the flare and monitoring equipment when the collection and control systems are in operation.
  - (6) The permittee shall maintain, for the life of the collection system, an up-to-date, readily accessible, plot map showing each existing and planned collector in the system and providing a unique identification location for each collector.
- e) Reporting Requirements
- (1) Any breakdown or malfunction of the landfill gas collection and control system resulting in the emission of raw landfill gas to the atmosphere shall be reported to the Northwest District Office within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and to prevent further emissions to the atmosphere.
  - (2) The permittee shall notify the Northwest District Office immediately of any known subsurface fire or any evidence indicating the existence of a subsurface fire at the landfill.
  - (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
    - a. value, length of time, and initial date for any exceedance(s) of the applicable parameters contained in c)(1)(b);



- b. date and description of any actions and/or measures initiated to correct any exceedance(s) of the applicable parameters contained in c)(1)(b);
- c. description and duration of all periods when the gas stream is not vented to off-site facilities and is diverted from the control device (flare) through a bypass line or the indication of bypass flow;
- d. description and duration of all periods when the control device (flare) was not operating for a period exceeding 1 hour and length of time the control device was not operating;
- e. all periods of time when the collection system was not operating in excess of 5 days.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (4) The permittee shall submit an equipment removal report to the Northwest District Office 30 days prior to removal or cessation of operation of the control equipment. The equipment removal report shall contain the information specified in 40 CFR Part 60.757 (e)(1). The Ohio EPA may request additional information as may be necessary to verify that all of the conditions for removal in 40 CFR Part 60.752 (b)(2)(v) have been met.
  - (5) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitation:  
There shall be no visible emissions from the flare, except for periods of time not to exceed a total of 5 minutes during any two consecutive hours.  
  
Applicable Compliance Method:  
If required, compliance with the visible emission limitation specified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.
    - b. Emission Limitations: (Controlled Landfill Gas Emissions)  
0.25 lb VOC/hr; 1.10 tons VOC/year



Applicable Compliance Method:

These hourly and annual emission limitations represent the highest gas generation /emissions rates which could occur at this facility based on the following landfill capacities:

Landfill Unit	Landfill Capacity (tons)	Maximum Receiving Rate
Active Unit	9,403,425	750 tons/day

The landfill emission limitations contained in this permit can be documented as follows:

- i. NMOC emissions were calculated by Landfill Gas Emission Model (LandGEM). The predicted NMOC emissions were converted to VOC emissions by applying the AP-42 Chapter 2.4 (11/98) conversion rate of 39%.
  - ii. The following landfill gas collection system capture efficiencies, based on engineering design: Active Unit: 55%.
  - iii. A 98% control efficiency from the flare for the control of NMOC, as applicable.
  - iv. A maximum operating schedule of 8,760 hours/year.
- c. Emission Limitations: (Flare Combustion Emissions)  
 15.0 pounds PM<sub>10</sub> per mmDSCF methane; 3.69 tons PM<sub>10</sub>/year  
 0.45 pounds SO<sub>2</sub> /hour; 2.00 tons SO<sub>2</sub>/year

Applicable Compliance Method:

The hourly flare combustion emission limitations were established based on the emission factors from AP-42 Chapter 2.4, Municipal Solid Waste Landfills (Draft October 2008).

Compliance with the annual emission limitations may be demonstrated by multiplying the pound pollutant per mmDSCF methane limitations by a maximum operating schedule of 8,760 hours/year and then dividing by 2,000 pounds/ton.

- d. Emission Limitations: (Flare Combustion Emissions)  
 46.0 pounds CO per mmDSCF methane  
 39.0 pounds NO<sub>x</sub> per mmDSCF methane

Applicable Compliance Method:

The above flare combustion emission limitations were established based on the emission factors from AP-42 Chapter 2.4, Municipal Solid Waste Landfills (Draft October 2008).

- (2) The permittee shall conduct or have conducted within 90 days after initial use of the flare a determination of the actual volumetric flow rate (in units of standard temperature and



pressure) for the flare as determined by 40 CFR 60 Appendix A Methods 2, 2A, 2C, or 2D as appropriate. Alternative procedures and/or U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.

g) **Miscellaneous Requirements**

- (1) The permittee shall not construct, install, or modify any emission unit(s) contained in this PTI until approval of the "alteration request" to PTI 03-10322 has been granted by the Ohio EPA.
- (2) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTI prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.
- (3) The permittee may request alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting requirements contained in this permit which are associated with the active collection system. Any request for alternatives shall be submitted to the Ohio EPA Northwest District Office and shall include a revision to the collection and control system design plan. Alternatives will not be recognized without the written approval of the Ohio EPA.