



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

12/28/2012

Mr. Charles Young
City of Hamilton Department of Public Utilities
345 High St., Suite 410
Hamilton, OH 45011

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 1409040243
Permit Number: P0111967
Permit Type: Administrative Modification
County: Butler

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, Journal News. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Southwest Ohio Air Quality Agency at (513)946-7777.

Sincerely,

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

Cc: U.S. EPA Region 5 -Via E-Mail Notification
SWOQA; Indiana; Kentucky

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	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



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

City of Hamilton Department of Public Utilities is an electric power generation facility that provides electricity to the City of Hamilton in Butler County, Ohio. The facility is permitted to operate multiple combustion units with a combined generation capacity of approximately 125 megawatts. One of the units at the facility is a Heat Recovery Boiler using natural gas as a supplemental fuel (B010). Emissions unit B010 is a 255 mmBtu/hr Riley Heat Recovery Boiler that produces steam using exhaust gas from Gas Turbine No.2 (B004) and supplements the recovered heat from emissions unit B004 through the firing of natural gas using a 98 mmBtu/hr auxiliary burner.

Background for B010. The equipment for B010 was first installed in 1971 as emissions unit B005 (Riley Heat Recovery Boiler). The boiler produced steam for five years, then remained idle as an emergency standby unit. On 8/1/1989, the source was withdrawn. In June 1993, the facility requested to reactivate this equipment. Ohio EPA considered this equipment to be a new source at that time and issued Permit to Install (PTI) 14-3052, dated 11/3/1993, renaming the equipment emissions unit B010.

This PTI P0111967 is an administrative modification for emissions unit B010 to update allowable emissions limitations that are based on US EPA AP-42 emissions factors that were revised in July 1998, and to correct some permit terms. This is an agency-initiated administrative modification. No physical or operational changes to the emissions unit have been made.

PTI P0111967 will supersede the terms and conditions of PTI 14-3052, issued 11/3/1999, for emissions unit B010.

3. Facility Emissions and Attainment Status:

City of Hamilton Department of Public Utilities is located in Butler County, Ohio, which is currently non-attainment for ozone and attainment for all other criteria pollutants. City of Hamilton Department of Public Utilities is a major stationary source since it is a fossil fuel-fired steam electric plant (in the 28 listed source category) that has potential emissions of nitrogen oxides (NOx), sulfur dioxide (SO₂), and carbon monoxide (CO) greater than 100 tons per year (TPY).

PTI P0111967 retains the original federally enforceable limitations within PTI 14-3052 that limits natural gas usage to 660 million cubic feet per year that was established to ensure this emissions unit does not trigger non-attainment new source review for NOx emissions in an ozone non-attainment area.

4. Source Emissions:

Best available technology (BAT) was not reevaluated for this permitting action, since this action is an administrative modification. Ohio Administrative Code (OAC) rule 3745-31-05(A)(3) applies to emissions unit B010 for NOx, CO, VOC, PE, and SO₂ emissions. BAT is considered to be emissions



limitations in the form of “pounds of emissions per million Btu of actual heat input”, natural gas usage restriction, and the use of low-NOx burners.

OAC rule 3745-31-05(D) applies to emissions unit B010 by restricting natural gas usage and emissions of NOx, CO, VOC and PE based on a rolling, 12-month summation.

OAC rule 3745-17-07(A)(1) applies to emissions unit B010 by setting a visible particulate emissions limitation.

OAC rule 3745-17-10(B)(1) applies to emissions unit B010 by setting the particulate emissions (PE) limit to 0.020 lb/mmBtu.

OAC rule 3745-18-15(M)(4) applies to emissions unit B010 by setting the SO₂ emissions limit to 0.0 lb/mmBtu.

40 CFR Part 60, Subpart Dc (NSPS for Small Industrial-Commercial-Institutional Steam Generating Units) applies to emissions unit B010, however, the emissions standards for PE and SO₂ specified by this rule for gaseous fuel combustion are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3), OAC rule 3745-17-10(B)(1), and OAC rule 3745-18-15(M)(4).

40 CFR Part 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters) does not apply to emissions unit B010. B010 is exempt from this subpart due to B010 being defined as a waste heat boiler which is excluded from the definition of boiler as defined in this subpart.

Changes made to the terms and conditions in this permitting action include updating short term emissions limitations to reflect revised AP-42 emissions factors for CO and VOC. Annual emissions limits, based on a rolling, 12-month summation, were also adjusted to match revised AP-42 emissions factors (AP-42 1.4, 7/1998) and using a heat content of 1020 Btu/cubic foot for natural gas as detailed in AP-42.

Annual emissions limitations and fuel usage restriction were changed to a rolling, 12-month summation basis, rather than the originally permitted rolling, 365-day basis.

The short term emission limitation for SO₂ was corrected in order to reflect the requirement in OAC rule 3745-18-15(M)(4) for emissions unit B010 of 0.0 lb/mmBtu SO₂.

The language for 40 CFR Part 60, Subpart Dc was updated.

The exemption for 40 CFR Part 63, Subpart DDDDD was added.

5. Conclusion:

PTI P0111967 is an administrative modification to revise allowable emissions of CO and VOC based upon updated US EPA AP-42 emission factors and to correct technical errors. The changes to the CO and VOC emission factors and allowable emission limitations in this administrative modification do not cause this source to trigger prevention of significant deterioration or non-attainment new source review since the CO and VOC emissions limits are still below the major source threshold for major



modification. This administrative modification to PTI 14-3052 retains the necessary federally enforceable operating restrictions, emissions limitations, monitoring, record keeping, and reporting to ensure that the emissions unit does not trigger non-attainment new source review for NOx emissions in an ozone non-attainment area.

6. Please provide additional notes or comments as necessary:

Approval of PTI P0111967 is recommended. It is recommended that the permit be first issued in draft prior to being issued final, since the original PTI 14-3052 was issued first in draft.

Permit Fee: B010 (Fuel Burning: 10-99 mmBtu/hr) \$400
Agency Initiated Admin Mod: No Fee
Total: No Fee

Prepared by: Amy Kesterman
Date: December 13, 2012

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
NOx	33.66
CO	27.72
VOC	1.82
PE	6.73

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install
City of Hamilton Department of Public Utilities

Issue Date: 12/28/2012

Permit Number: P0111967

Permit Type: Administrative Modification

Permit Description: Agency-initiated Administrative Modification to PTI 14-3052 for emissions unit B010 to correct the permit terms, update emissions factors, and update language.

Facility ID: 1409040243

Facility Location: City of Hamilton Department of Public Utilities
960 North Third Street,
Hamilton, OH 45011

Facility Description: Fossil Fuel Electric Power Generation

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Paul Tedtman, Southwest Ohio Air Quality Agency, 250 William Howard Taft Rd., Cincinnati, OH 45219. Ph: (513)946-7777



DRAFT

Division of Air Pollution Control
Permit-to-Install
for
City of Hamilton Department of Public Utilities

Facility ID:	1409040243
Permit Number:	P0111967
Permit Type:	Administrative Modification
Issued:	12/28/2012
Effective:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
City of Hamilton Department of Public Utilities

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Draft Permit-to-Install
City of Hamilton Department of Public Utilities
Permit Number: P0111967
Facility ID: 1409040243
Effective Date: To be entered upon final issuance

Authorization

Facility ID: 1409040243
Facility Description:
Application Number(s): M0001987
Permit Number: P0111967
Permit Description: Agency-initiated Administrative Modification to PTI 14-3052 for emissions unit B010 to correct the permit terms, update emissions factors, and update language.
Permit Type: Administrative Modification
Permit Fee: \$0.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 12/28/2012
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

City of Hamilton Department of Public Utilities
960 North Third Street
Hamilton, OH 45011

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:

Southwest Ohio Air Quality Agency
250 William Howard Taft Rd.
Cincinnati, OH 45219
(513)946-7777

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



Draft Permit-to-Install
City of Hamilton Department of Public Utilities
Permit Number: P0111967
Facility ID: 1409040243
Effective Date: To be entered upon final issuance

Authorization (continued)

Permit Number: P0111967

Permit Description: Agency-initiated Administrative Modification to PTI 14-3052 for emissions unit B010 to correct the permit terms, update emissions factors, and update language.

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

Emissions Unit ID:	B010
Company Equipment ID:	Heat Recovery Boiler
Superseded Permit Number:	14-3052
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install
City of Hamilton Department of Public Utilities
Permit Number: P0111967
Facility ID: 1409040243
Effective Date: To be entered upon final issuance

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 Southwest Ohio Air Quality Agency.



- (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 Southwest Ohio Air Quality Agency. 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 Southwest Ohio Air Quality Agency 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 Southwest Ohio Air Quality Agency 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 Southwest Ohio Air Quality Agency 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 Southwest Ohio Air Quality Agency.
- 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 Southwest Ohio Air Quality Agency. 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.



Draft Permit-to-Install
City of Hamilton Department of Public Utilities
Permit Number: P0111967
Facility ID: 1409040243
Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



Draft Permit-to-Install
City of Hamilton Department of Public Utilities

Permit Number: P0111967

Facility ID: 1409040243

Effective Date: To be entered upon final issuance

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.



Draft Permit-to-Install
City of Hamilton Department of Public Utilities
Permit Number: P0111967
Facility ID: 1409040243
Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. B010, Heat Recovery Boiler

Operations, Property and/or Equipment Description:

Heat Recovery Boiler equipped with auxiliary 98 mmBtu/hr natural gas burners as supplemental fuel

- 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) None.
- 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.	OAC rule 3745-31-05(A)(3)	<p>Nitrogen oxides (NOx) emissions shall not exceed 0.1 pound per mmBtu of actual heat input.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.082 pound per mmBtu of actual heat input.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.005 pound per mmBtu of actual heat input.</p> <p>See b)(2)c.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D), OAC rule 3745-17-07(A)(1), OAC rule 3745-17-10(B)(1), and OAC rule 3745-18-15(M)(4).</p>
b.	<p>OAC rule 3745-31-05(D)</p> <p>Federally Enforceable Limitations to Avoid Nonattainment New Source Review</p>	<p>Nitrogen oxides (NOx) emissions shall not exceed 33.66 tons per year based on a rolling, 12-month summation.</p> <p>Carbon monoxide (CO) emissions shall not exceed 27.72 tons per year based on a rolling, 12-month summation.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Volatile organic compound (VOC) emissions shall not exceed 1.82 tons per year based on a rolling, 12-month summation.</p> <p>Particulate emissions (PE) shall not exceed 6.73 tons per year based on a rolling, 12-month summation.</p> <p>See c)(1).</p>
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 pound per mmBtu of actual heat input.
e.	OAC rule 3745-18-15(M)(4)	Sulfur dioxide (SO ₂) emissions shall not exceed 0.0 pound per mmBtu of actual heat input.
f.	<p>40 CFR Part 60, Subpart Dc (40 CFR Part 60.40c-48c)</p> <p>Standards of Performance (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units</p>	The emission standards specified by this rule for gaseous fuel combustion are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3), OAC rule 3745-17-10(B)(1) and OAC rule 3745-18-15(M)(4).
g.	<p>40 CFR Part 63, Subpart DDDDD (40 CFR Part 63.7480-7575)</p> <p>National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters</p>	Exempt. In accordance with 40 CFR 63.7485 and 63.7575, this emissions unit is defined as a waste heat boiler that is excluded from the definition of boiler, therefore it is not subject to the emission limitations, operating limitations, and/or work practices specified in the Subpart.

(2) Additional Terms and Conditions

- a. This emissions unit receives exhaust gas from Gas Turbine No.2 (emissions unit B004) and supplements the recovered heat from emissions unit B004 through the firing of natural gas. The emission limitations specified for this emissions unit are only related to the firing of natural gas. If emission testing is required for any of the emission limitations, compliance shall be demonstrated by subtracting the emissions in the outlet duct for emissions unit B004 (i.e., inlet to this emissions unit) from the emissions in the outlet duct for this emissions unit.



- b. The rolling, 12-month PE, CO, VOC, and NO_x emission limitations were established using current AP-42 emission factors (except for the PE limitation which is based upon the emission limitation in OAC rule 3745-17-10(B)(1) and the NO_x emission limitation which is based upon a best available technology (BAT) determination for the use of low-NO_x burners), the heat content of natural gas (1020 Btu/cu. ft.), and the natural gas usage limitation (660 million cubic feet per year based on a rolling, 12-month summation). Provided that the permittee complies with the restricted natural gas usage limitation and the applicable AP-42 emission factors (or the PE limitation specified in OAC rule 3745-17-10(B)(1) and the NO_x limitation established pursuant to OAC rule 3745-31-05(A)(3)) are not increased, compliance with the rolling, 12-month emission limitations will be demonstrated. Therefore, no additional monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations.
- c. The permittee shall employ low-NO_x burners in this emissions unit.
- c) Operational Restrictions
 - (1) The maximum natural gas usage for this emissions unit shall not exceed 660 million cubic feet per year based on a rolling, 12-month summation.
 - (2) The permittee shall burn only natural gas and exhaust gas from emissions unit B004 in this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall collect and record on a monthly basis the following information:
 - a. the amount of natural gas burned, in cubic feet; and
 - b. the updated rolling, 12-month summation of the natural gas burned (the summation of the information contained in d)(1)a. for the current month and the information contained in d)(1)a. for the previous eleven months).
 - (2) For each day during which the permittee burns a fuel other than natural gas and exhaust gas from emissions unit B004, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (3) The permittee shall record and maintain records of the amount of each fuel combusted during each operating day in accordance with 40 CFR 60.48c(g)(1), except as provided below.
 - a. As an alternative to the daily record keeping requirements specified in 40 CFR 60.48c(g)(1):
 - i. the permittee may elect to record and maintain records of the amount of each fuel combusted during each calendar month in accordance with 40 CFR 60.48c(g)(2); or



- ii. the permittee may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to the property during each calendar month in accordance with 40 CFR 60.48c(g)(3).

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the natural gas usage restriction specified in c)(1) based on a rolling, 12-month summation.

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

- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and exhaust gas from emissions unit B004 was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit notification of the date of construction or reconstruction and actual startup in accordance with the requirements of 40 CFR 60.48c(a) and 40 CFR 60.7. [Notifications for this emissions unit were previously submitted pursuant to this requirement; therefore a notification is not required subsequent to this permitting action.]
- (4) 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:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

b. Emission Limitations:

Nitrogen oxides (NO_x) emissions shall not exceed 0.1 pound per mmBtu of actual heat input.

Nitrogen oxides (NO_x) emissions shall not exceed 33.66 tons per year based on a rolling, 12-month summation.



Applicable Compliance Method:

The potential annual emissions rate for emissions unit B010 was determined based on the following equation from the permittee-supplied information in PTI application 14-3052 as submitted on April 2, 1993:

$$\text{NOx} = (0.1 \text{ lb/mmBtu allowable emission limitation}) \times (1020 \text{ mmBtu/mm cu ft of natural gas; AP-42 1.4, 7/1998}) \times (660 \text{ mm cu ft of natural gas per year max allowable}) / (2000 \text{ lbs/ton}) = 33.66 \text{ TPY.}$$

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or other USEPA-approved methods.

c. Emission Limitations:

Carbon monoxide (CO) emissions shall not exceed 0.082 pound per mmBtu of actual heat input.

Carbon monoxide (CO) emissions shall not exceed 27.72 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

The potential annual emissions rate for emissions unit B010 was determined based on the following equation from the permittee-supplied information in PTI application 14-3052 as submitted on April 2, 1993:

$$\text{CO} = (84 \text{ lb/mm cu ft of natural gas usage; AP-42 1.4, 7/1998}) \times (660 \text{ mm cu ft of natural gas per year max allowable}) / (2000 \text{ lbs/ton}) = 27.72 \text{ TPY.}$$

The short term emission limitation for emissions unit B010 was determined based on the following equation from AP-42:

$$\text{CO} = (84 \text{ lb/mm cu ft of natural gas usage; AP-42 1.4, 7/1998}) / (1020 \text{ mmBtu/mm cu ft of natural gas; AP-42 1.4, 7/1998}) = 0.082 \text{ pound per mmBtu.}$$

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or other USEPA-approved methods.

d. Emission Limitations:

Volatile organic compound (VOC) emissions shall not exceed 0.005 pound per mmBtu of actual heat input.

Volatile organic compound (VOC) emissions shall not exceed 1.82 tons per year based on a rolling, 12-month summation.



Applicable Compliance Method:

The potential annual emissions rate for emissions unit B010 was determined based on the following equation from the permittee-supplied information in PTI application 14-3052 as submitted on April 2, 1993:

$$\text{VOC} = (5.5 \text{ lb/mm cu ft of natural gas usage; AP-42 1.4, 7/1998}) \times (660 \text{ mm cu ft of natural gas per year max allowable}) / (2000 \text{ lbs/ton}) = 1.82 \text{ TPY.}$$

The short term emission limitation for emissions unit B010 was determined based on the following equation from AP-42:

$$\text{VOC} = (5.5 \text{ lb/mm cu ft of natural gas usage; AP-42 1.4, 7/1998}) / (1020 \text{ mmBtu/mm cu ft of natural gas; AP-42 1.4, 7/1998}) = 0.005 \text{ pound per mmBtu.}$$

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or other USEPA-approved methods.

e. Emission Limitations:

Particulate emissions (PE) shall not exceed 0.020 pound per mmBtu of actual heat input.

Particulate emissions (PE) shall not exceed 6.73 tons per year based on a rolling, 12-month summation.

Applicable Compliance Method:

The potential annual emissions rate for emissions unit B010 was determined based on the following equation from the permittee-supplied information in PTI application 14-3052 as submitted on April 2, 1993:

$$\text{PE} = (0.020 \text{ lb/mmBtu rule-based allowable emission limitation}) \times (1020 \text{ mmBtu/mm cu ft of natural gas; AP-42 1.4, 7/1998}) \times (660 \text{ mm cu ft of natural gas per year max allowable}) / (2000 \text{ lbs/ton}) = 6.73 \text{ TPY.}$$

If required, the permittee shall demonstrate compliance with the lb/mmBtu emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and procedures specified in OAC rule 3745-17-03(B)(9).

f. Emission Limitation:

Sulfur dioxide (SO₂) emissions shall not exceed 0.0 pound per mmBtu of actual heat input.



Draft Permit-to-Install
City of Hamilton Department of Public Utilities
Permit Number: P0111967
Facility ID: 1409040243
Effective Date: To be entered upon final issuance

Applicable Compliance Method:

Pursuant to OAC rule 3745-18-04(F)(4), the SO₂ emission rate for this emissions unit shall be considered to be equal to 0.0 pound per mmBtu based upon natural gas combustion.

- g) Miscellaneous Requirements
 - (1) None.