



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center  
50 W. Town St., Suite 700  
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184  
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049  
Columbus, OH 43216-1049

5/4/2009

VAL CZOMBA  
CLEAN HARBORS PPM LLC  
1672 E. HIGHLAND RD  
TWINSBURG, OH 44087

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1677130050  
Permit Number: P0103532  
Permit Type: Renewal  
County: Summit

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate ("PTIO") which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully.

Ohio EPA maintains a document entitled "Frequently Asked Questions about the PTIO". The document can be downloaded from the DAPC Web page, [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc), from the "Permits" link. This document contains additional information related to your permit, such as what activities are covered under the PTIO, who has enforcement authority over the permit and Ohio EPA's authorization to inspect your facility and records. Please contact the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469 if you need assistance.

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

If you have any questions regarding this permit, please contact the Akron Regional Air Quality Management District. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page [www.epa.state.oh.us/dapc](http://www.epa.state.oh.us/dapc).

Sincerely,

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

Cc: ARAQMD

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





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install and Operate  
for  
CLEAN HARBORS PPM LLC**

Facility ID: 1677130050  
Permit Number: P0103532  
Permit Type: Renewal  
Issued: 5/4/2009  
Effective: 5/4/2009  
Expiration: 5/4/2019





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Air Pollution Permit-to-Install and Operate**  
for  
**CLEAN HARBORS PPM LLC**

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Division of Air Pollution Control

**Final Permit-to-Install and Operate**  
**Permit Number:** P0103532  
**Facility ID:** 1677130050  
**Effective Date:** 5/4/2009

## Authorization

Facility ID: 1677130050  
Application Number(s): A0035414  
Permit Number: P0103532  
Permit Description: Scrap metal incinerator.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 5/4/2009  
Effective Date: 5/4/2009  
Expiration Date: 5/4/2019  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15  
This document constitutes issuance to:

CLEAN HARBORS PPM LLC  
1672 E. HIGHLAND ROAD  
TWINSBURG, OH 44087

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

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

Akron Regional Air Quality Management District  
146 South High Street, Room 904  
Akron, OH 44308  
(330)375-2480

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0103532

**Facility ID:** 1677130050

**Effective Date:** 5/4/2009

## Authorization (continued)

Permit Number: P0103532

Permit Description: Scrap metal incinerator.

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>N001</b>
Company Equipment ID:	OHMR-1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
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**Final Permit-to-Install and Operate**

**Permit Number:** P0103532

**Facility ID:** 1677130050

**Effective Date:** 5/4/2009

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.



If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Akron Regional Air Quality Management District in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means 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.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the



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**Final Permit-to-Install and Operate**

**Permit Number:** P0103532

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change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number: P0103532**

**Facility ID: 1677130050**

**Effective Date: 5/4/2009**

## **B. Facility-Wide Terms and Conditions**



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0103532

**Facility ID:** 1677130050

**Effective Date:** 5/4/2009

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install and Operate**

**Permit Number:** P0103532

**Facility ID:** 1677130050

**Effective Date:** 5/4/2009

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



**1. N001, OHMR-1**

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

Scrap metal recovery oven, natural gas-fired, multiple chambered (2 primary chambers, Furnace #1 [OHMR-1], rated heat input 1.5 MMBtu/hr, & Furnace #2 [G-466], rated heat input 1.0 MMBtu/hr, feeding a common afterburner, rated heat input 6.0 MMBtu/hr) with a 4,600 lbs/hr maximum rated salvageable material batch charging capacity, burning Type 6 waste.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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) (PTI 16-01987)	<p>Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average.</p> <p>PE shall not exceed: 0.04 gr/dscf at 12% carbon dioxide, 1.4 lbs/hr, and 6.3 tpy.</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 1.6 lbs/hr and 7.2 tpy.</p> <p>Polychlorinated Biphenyl (PCB) emissions shall not exceed 0.00012 lb/hr and 1.0 lb/yr.</p> <p>The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of ORC 3704.03(F)(3)(c)</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		and F(4) and OAC rule 3745-114-0140, and CFR Part 761.  See b)(2) and c)(1) through c)(5) for additional requirements of OAC rule 3745-31-05(A)(3).
b.	OAC rule 3745-17-07(A) OAC rule 3745-17-09(B)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
c.	ORC 3704.03(F)(3)(c) and F(4) OAC rule 3745-114-01	See g)(1).
d.	40 CFR Part 761	See b)(2) for applicable requirements.

(2) Additional Terms and Conditions

- a. The scrap metal recovery oven (N001) shall be properly installed, adjusted, maintained, and operated in accordance with the manufacturer's recommendations, instructions, and specifications, to the extent possible with good engineering design.
- b. The permittee shall comply with all applicable requirements of 40 CFR Part 761-- Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution In Commerce, And Use Prohibitions, including the provisions of Section 761.72(a) of 40 CFR Part 761 for scrap metal recovery ovens, as listed below in Part II, Section A.2.e of this permit.
- c. N001 shall be restricted to the disposal of residual PCBs associated with "non-PCB" and "PCB-Contaminated" articles (i.e., articles containing oils with a concentration of less than 500 ppm PCBs) regulated for disposal under paragraph 761.60(b)(4) of 40 CFR Part 761, from which all free-flowing liquids have been removed and disposed, including residuals from flushing and rinsing, in accordance with paragraph 761.60(a) of 40 CFR Part 761. In no instance shall the removed liquids, including residuals from flushing and rinsing, be processed by N001.
- d. All equipment received by the permittee for processing in the oven shall be accompanied by a shipping document identifying the name and address of the generator and the date the materials were received by the permittee. Documentation must be available on the PCB content of the oil contained in the received equipment.
- e. The following provisions of Section 761.72(a) of 40 CFR Part 761 shall apply to N001:
  - i. The oven shall have at least two enclosed (i.e., negative draft, no fugitive emissions) interconnected chambers (i.e., primary chamber(s) and secondary chamber).



- ii. The equipment with all free-flowing liquid removed shall first be placed in the primary chamber(s) at room temperature.
  - iii. Each primary chamber shall operate at a temperature between 537 degrees C and 650 degrees C for a minimum of two and one half hours and reach a minimum temperature of 650 degrees C (1,202 degrees F) during each heating cycle or batch treatment of unheated, liquid-free equipment.
  - iv. Heated gases from each primary chamber must feed directly into the secondary chamber (i.e., afterburner) which must operate at a minimum temperature of 1,200 plus or minus 100 degrees C (2,192 plus or minus 180 degrees F) with at least a 3 percent excess oxygen and a retention time of 2.0 seconds with a minimum combustion efficiency of 99.9 percent according to the definition in paragraph 761.70(a)(2) of 40 CFR Part 761.
  - v. Heating of each primary chamber shall not commence until the secondary chamber has reached a temperature of at least 1,200 degrees C (2,192 degrees F).
  - vi. Continuous emissions monitors and recorders for carbon dioxide, carbon monoxide, and excess oxygen in the secondary chamber and continuous temperature recorders in the primary chambers and secondary chamber shall be installed and operated while the primary chamber(s) and secondary chamber are in operation to assure that all oven chambers are within the operating parameters, as specified in this air permit.
  - vii. Emissions from the secondary chamber must be vented through an exhaust gas stack in accordance with Ohio Administrative Code (OAC) chapter 3745-16.
  - viii. A measurement of the temperature in the secondary chamber at the time the primary chamber starts heating must be taken, recorded and retained at the facility for 3 years from the date each charge is introduced into the primary chamber.
- f. If N001, or any part of N001, breaks down in such a manner as to cause the emission of air contaminants in violation of any applicable law or permit term and condition, it shall be accompanied by an immediate total shutdown of the emissions unit.
- g. As an alternative to b)(2)(e)(iii) above, the permittee may operate each primary chamber of N001 at a minimum temperature of 350 degrees C (662 degrees F) for a minimum of two and one half hours during the heating cycle of each load charge of salvageable materials, which have been drained of all free-flowing liquid, in accordance with all of the requirements specified in the document titled "APPROVAL TO PROCESS FULLY DRAINED PCB-CONTAMINATED ELECTRICAL EQUIPMENT", approved and signed by the Director of the Waste, Pesticides, and Toxics Division of USEPA Region 5 with an effective date of June 19, 2002.



- h. The continuous emission monitoring system (CEMS) consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a written quality assurance/quality control plan for the CEMS, designed to ensure continuous valid and representative readings of CO, CO<sub>2</sub>, and O<sub>2</sub> emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the CEMS must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

c) Operational Restrictions

- (1) The permittee shall only burn natural gas as fuel in this emissions unit.
- (2) The permittee shall not process parts which may emit vapors of toxic metals such as lead, mercury, or cadmium. This permit does not allow the disposal of polyvinyl chloride (PVC), teflon, nor any material listed under 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants.
- (3) Batch ovens (fully loaded while cold and never opened until the burn cycle is complete) shall incorporate a lockout system, which will prevent the ignition of waste until the exhaust gas temperature of the secondary combustion chamber reaches 2192 degrees F.
- (4) The secondary combustion chamber of the emissions unit shall operate so that the exhaust gas is a minimum of 2,192 plus or minus 180 degrees F until the wastes are completely combusted and the burn-down cycle is complete.
- (5) The oven shall be operated, maintained, and cleaned according to the manufacturer's recommendations so as to prevent the emissions of objectionable odors.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the secondary combustion chamber when the emissions unit is in operation. Units shall be in degrees Fahrenheit (degrees F). The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- (2) The permittee shall collect and record the following information each day the emissions unit is in operation:



- a. all periods of time during which the temperature of the exhaust gases from the afterburner, when the emissions unit was in operation, was below the minimum secondary combustion chamber exhaust gas temperature of 2,192 plus or minus 180 degrees F as specified above; and
  - b. a log of the downtime for the monitoring/recording equipment, when the associated emissions unit was in operation.
- (3) The permittee shall operate and maintain continuous temperature monitors and recorders which measure and record the temperatures of the heated gases from the primary chambers when the emissions unit is in operation. Units shall be in degrees Fahrenheit (degrees F). The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
- (4) The permittee shall collect and record the following information each day the emissions unit is in operation:
- a. all periods of time during which the temperature of the heated gases from the primary chamber(s), when the emissions unit was in operation, was below the appropriate minimum allowable primary chamber operating temperature, as specified above; and
  - b. a log of the downtime for the monitoring/recording equipment, when the associated emissions unit was in operation.
- (5) The permittee shall operate and maintain equipment, in accordance with the manufacturer's recommendations, instructions, and operating manual(s), to continuously monitor and record the concentrations of carbon dioxide, carbon monoxide, and excess oxygen, respectively, C(CO2), C(CO), and C(excess O2), in the secondary chamber of this emissions unit. Respective concentration units shall be in percent CO2 (%CO2), percent CO (%CO), and percent excess O2 (%excess O2).

The permittee shall maintain records of all data obtained by the continuous CO2, CO, and excess O2 monitoring system including, but not limited to, %CO2, %CO, and %excess O2 on an instantaneous (one-minute) basis and in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of quarterly cylinder gas audits, results of daily zero/span calibration checks and the magnitude of manual calibration adjustments, results of required relative accuracy test audit(s), and hours of operation of the emissions unit and CEMS.

From the above information, the combustion efficiency shall be computed as follows:

$$\text{combustion efficiency} = C(\text{CO}_2) / [C(\text{CO}_2) + C(\text{CO})] \times 100\%$$

where:

C(CO2) = concentration of carbon dioxide  
C(CO) = concentration of carbon monoxide.



On November 16, 2006, a relative accuracy test audit (RATA) was conducted on the CO<sub>2</sub>, CO, and excess O<sub>2</sub> continuous emission monitoring system (CEMS) for this emissions unit. In addition to the RATA, a 7-day calibration drift test was also conducted from November 16 through November 22, 2006. The RATA report, dated January 5, 2007, was received at Akron Regional AQMD on January 29, 2007.

Based on implementation of testing procedures that met applicable CEMS certification guidelines and successful results from the RATA and the 7-day cal/drift test, the CO and CO<sub>2</sub> CEMS, used to demonstrate on-going compliance with the afterburner combustion efficiency requirement, and the O<sub>2</sub> CEMS, used to demonstrate on-going compliance with the afterburner excess oxygen requirement, were certified in units of the applicable standards, respectively, for %combustion efficiency and %excess O<sub>2</sub> on November 22, 2006 by Ohio EPA, Central Office. The statement of certification, dated January 24, 2007, including the CEMS certification determination, was provided to Clean Harbors and Akron Regional AQMD by Ohio EPA, Central Office.

As an aid to retain the CEMS "certified" status, the permittee is hereby advised to follow the guidance set forth in the above-mentioned January 24, 2007 statement of certification provided by Ohio EPA, Central Office. The statement of certification shall be maintained on-site and made available for inspection, upon request.

- (6) The permittee shall collect and record the following information each day the emissions unit is in operation:
  - a. based on the appropriate averaging period selected in d)(5) above, all periods of time during which the combustion efficiency and/or exhaust gas oxygen content of the afterburner, when the emissions unit was in operation, were below the respective minimum allowable afterburner combustion efficiency of 99.9% and 3% excess oxygen as specified above;
  - b. hours of operation of the emissions unit without the CEMS;
  - c. hours of operation of the emissions unit during any malfunction of the CEMS; as well as,
  - d. the reason (if known) and the corrective actions taken (if any) for each such event in (b) and (c).
  
- (7) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and



e. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(2) The permittee shall identify the following information in the annual PER in accordance with the monitoring requirements for visible emissions in term number d)(7) above:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

b. any corrective actions taken to eliminate the visible particulate emissions.

f) Testing Requirements

(1) Compliance with the emission limitations in section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average.

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

PE shall not exceed: 0.04 gr/dscf at 12% carbon dioxide, 1.4 lbs/hr, and 6.3 tpy.

Applicable Compliance Method:

Compliance shall be determined in accordance with the stack testing requirements in f)(2).

c. Emission Limitation:

PCB emissions shall not exceed 0.00012 lb/hr and 1.0 lb/yr.

Applicable Compliance Method:

Compliance shall be determined in accordance with the stack testing requirements in f)(2).



d. Emission Limitation:

Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 1.6 lbs/hr and 7.2 tpy.

Applicable Compliance Method:

Compliance shall be determined in accordance with the stack testing requirements in f)(2).

e. Emission Limitation:

The afterburner shall have a minimum combustion efficiency of 99.9%, and at least 3% excess oxygen in its exhaust gas.

Applicable Compliance Method:

Compliance shall be determined through the recordkeeping requirements of d)(5) and demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The testing shall be conducted in the period 18 to 6 months prior to expiration of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates, nitrogen oxides, and PCBs, and shall demonstrate combustion efficiency pursuant to b)(2)(e)(iv) of these terms and conditions.

On December 14 & 15, 2006, Clean Harbors successfully stack tested this emissions unit and demonstrated compliance with the applicable allowable mass emission rates for particulates, nitrogen oxides, PCBs, and with combustion efficiency requirements. A final test report, dated February 14, 2007, was received at Akron Regional AQMD on February 20, 2007.

- c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates of this permit:
  - i. particulate emissions and carbon dioxide: Methods 1-5 of 40 CFR Part 60, Appendix A;
  - ii. PCBs: NIOSH 5503;
  - iii. carbon monoxide: Method 10 of 40 CFR Part 60, Appendix A; and
  - iv. nitrogen oxides: Method 7E of 40 CFR Part 60, Appendix A.

Alternative USEPA test methods may be used with prior approval from the Ohio EPA.



- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
  - f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- g) **Miscellaneous Requirements**
- (1) Modeling to demonstrate compliance with, the A 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 permit-to-install and operate (PTIO) prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, 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 PTIO.