



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
SUMMIT COUNTY**

**CERTIFIED MAIL**

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov.  
Center

**Application No: 16-02187**

**DATE: 3/26/2002**

AP Plant  
Jim Benson  
226 Opportunity Pkwy  
Akron, OH 44307-2232

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

ARAQMD



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**FINAL PERMIT TO INSTALL 16-02187**

Application Number: 16-02187  
APS Premise Number: 1677010757  
Permit Fee: **\$2400**  
Name of Facility: AP Plant  
Person to Contact: Jim Benson  
Address: 226 Opportunity Pkwy  
Akron, OH 44307-2232

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**226 Opportunity Pkwy**  
**Akron, Ohio**

Description of proposed emissions unit(s):  
**Modification to Burn a Restricted Qunatity of Waste Oil.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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



Director

**Part I - GENERAL TERMS AND CONDITIONS****A. State and Federally Enforceable Permit To Install General Terms and Conditions****1. Monitoring and Related Recordkeeping 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:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. 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:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. 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 appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

calendar quarters. See B.10 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., 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.
- iv. 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.

## 2. 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 appropriate Ohio EPA District Office or local air 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).

## 3. 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.

## 4. 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.

## 5. Severability Clause

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.

## 6. 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 reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, 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, reopening 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.

## 7. 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 this Permit To Install.

## 8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## 9. Compliance Requirements

- a. 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:
  - i. 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.
  - ii. 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.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. 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 appropriate Ohio EPA District Office or local air 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:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. 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.

**10. Permit To Operate Application**

- a. If 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).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

**11. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**12. 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.

**B. State Only Enforceable Permit To Install General Terms and Conditions****1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

**2. Reporting Requirements Related to Monitoring and Recordkeeping 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 appropriate Ohio EPA District Office or local air 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 appropriate Ohio EPA District Office or local air 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 quarterly, i.e., 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.)

**3. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**4. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

## **5. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

## **6. 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.

## **7. 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).

## **8. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	260.2
NOx	923.7
SO2	48.5
CO	354.9
OC	551.9
Pb	1.2

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B003-Unit #1, Babcock and Wilcox 180 MMBtu/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05(A)(3)

OAC rule 3745-17-07(A)

OAC rule 3745-17-10(B)

	Applicable Emissions <u>Limitations/Control Measures</u>	
OAC rule 3745-17-10(C)		lead (Pb) emissions shall not exceed 0.0843 lb/hr and 0.4 tpy Pb;
OAC rule 3745-17-09	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B) &(C), 3745-17-09, 3745-18-06(D), 3745-31-05(D), and 40 CFR 60 Subpart E.	0.50 weight percent sulfur content for all oil fired;
OAC rule 3745-18-06(D)		20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction.
40 CFR 60, Subpart E	When burning natural gas and/or no.2 fuel oil exclusively, particulate (PM) emissions shall not exceed 0.02 lb / MMBtu of actual heat input;	See A.2.a below.
OAC rule 3745-31-05(D)		See A.2.b below.
	When burning a combination of the following fuels: natural gas, no.2 fuel oil, waste oil and/or wood (as described in term A.II.2), particulate (PM) emissions shall not exceed 0.11 lb / MMBtu of actual heat input , 19.8 lbs/hr and, 86.72 tpy PM;	Applicable particulate rule when burning natural gas and/or no.2 fuel oil, see A.2.b below.
	nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 70.3 lbs/hr and 307.9 tpy NO <sub>x</sub> ;	Applicable particulate rule when burning waste oil, see A.2.b below.
	sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 101 lbs/hr;	Applicable particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
	carbon monoxide (CO) emissions shall not exceed 27.0 lbs/hr and 118.3 tpy CO;	Applicable sulfur dioxide rule when burning any of the following: natural gas, fuel oil, and waste oil. see, see A.2.b below.
	organic compounds (OC) emissions shall not exceed 42 lbs/hr and 183.96 tpy OC;	Applicable federal particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
		This emissions unit is limited to burning natural gas, #2 fuel oil, wood (as described in term A.II.3), used oil or a combination of these fuels. The amount of these fuels for emissions unit B003

through B005 is limited by the equation found in paragraph A.II.2. and by a limit of no more than 1,000,000 gallons of used oil per rolling 12-month period.

48.5 tons of SO<sub>2</sub> per rolling 12-month period for emissions units B003 through B005 combined.

**2. Additional Terms and Conditions**

- 2.a** All used oil burned in this emissions unit shall be "on-specification used oil" in accordance with the definitions specified in 40 CFR Part 279 and OAC rule 3745-58-50.
- 2.b** The emission limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- 2.c** Based upon information submitted by the applicant in their November 20, 2001 letter, the annual actual SO<sub>2</sub> emissions are 8.9 tons per year based upon years 1999 and 2000 reporting.

**II. Operational Restrictions**

1. Used Oil Restrictions:

On-specification used oil shall not be fired during emissions unit start-ups or shutdowns. On-specification used oil shall not be fired until the emissions unit reaches normal operating temperatures.

All on-specification used oil fired in this emissions unit shall meet the following specifications:

Contaminants/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppm, maximum
total halogens	4000 ppm, maximum
mercury	1 ppm, maximum
flash point	100 degrees Fahrenheit, minimum
heat content	100,000 Btu/gallon, minimum

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AP Pla

PTI A<sub>1</sub>

**Issued: 3/26/2002**

Emissions Unit ID: B003

sulfur

0.5%, by weight, maximum

Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph C of OAC rule 3745-58-50. Therefore, the permittee may burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm maximum) only if the permittee has demonstrated to the Ohio EPA's Division of Hazardous Waste Management that the used oil does not contain any hazardous wastes.

2. Emission and Used Oil Burned Restrictions:

In order to avoid applicability of the Prevention of Significant Deterioration rules, Akron Thermal shall restrict the use of fuels burned in emissions units B003 through B005 combined by the following formula#:

$$\left( \frac{W \text{ gal of \#2 fuel oil burned}}{\text{rolling 12-month period}} \right) \left( \frac{142(S_1) \text{ lbs of SO}_2}{1000 \text{ gal of fuel oil}} \right) +$$

$$\left( \frac{X \text{ gal of used oil burned}}{\text{rolling 12-month period}} \right) \left( \frac{147(S_2) \text{ lbs of SO}_2}{1000 \text{ gal of used oil}} \right) +$$

$$\left( \frac{Y \text{ lbs of wood burned}}{\text{rolling 12-month period}} \right) \left( \frac{0.025 \text{ lbs of SO}_2}{10^6 \text{ BTU}} \right) \left( \frac{4500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left( \frac{Z \text{ CF natural gas burned}}{\text{rolling 12-month period}} \right) \left( \frac{0.6 \text{ lbs of SO}_2}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left( \frac{97000 \text{ lbs of SO}_2}{\text{rolling 12-month period}} \right)$$

Where:

*W* is the number of gallons of #2 fuel oil burned per rolling 12-month period

*X* is the number of gallons of used oil burned per rolling 12-month period

*Y* is the pounds of wood burned per rolling 12-month period

*Z* is the cubic feet of natural gas burned per rolling 12-month period

*S*<sub>1</sub> is the 12-month rolling weight percent sulfur in the #2 fuel oil

*S*<sub>2</sub> is the 12-month rolling weight percent sulfur in the used oil

# note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above SO<sub>2</sub> lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them,

provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and Akron Thermal.

and in addition during the first 12 calendar months of operation while burning used oil following the issuance of this permit, the permittee shall not exceed the used oil burned limitations specified in the following table:

Month	Maximum Allowable Used Oil Burned (B003 - B005) (gallons)
1	200,000
1 - 2	200,000
1 - 3	400,000
1 - 4	400,000
1 - 5	600,000
1 - 6	600,000
1 - 7	800,000
1 - 8	800,000
1 - 9	1,000,000
1 - 10	1,000,000
1 - 11	1,000,000
1 - 12	1,000,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual used oil burned limitation shall be based upon a rolling, 12-month summation of used oil burned, in gallons.

3. Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

4. Requirements for the Sampling and Analysis of the Used Oil & #2 Fuel Oil burned:

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of #2 fuel oil and used oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

5. ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this emissions unit, except the ESP may not be operated during periods of start-up until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit at the inlet of the ESP or during periods of shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit at the inlet of the ESP.

The operation of the control equipment outside of the restrictions established above may or may not indicate a mass emission violation. If required by the Ohio EPA, compliance with the mass emission limitations shall be determined by performing concurrent mass emission tests and parameter readings, using US EPA-approved methods and procedures. The results of any required emission tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of the restrictions specified above is indicative of a possible violation of the mass emission limitations.

### III. Monitoring and/or Recordkeeping Requirements

1. Used Oil Requirements:

The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

- a. date of shipment or delivery;
- b. quantity of used oil received;
- c. the Btu value of the used oil;
- d. the flash point of the used oil;
- e. the arsenic content;
- f. the cadmium content;

- g. the chromium content;
- h. the lead content;
- i. the PCB content;
- j. the total halogen content;
- k. the mercury content; and
- l. the sulfur content.

The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by the facility, of any used oil stored at this facility, or of any used oil sampled at the emissions unit.

The permittee shall conduct or have performed an analysis of a representative sample of used oil from any used oil storage tank located at the facility on an annual basis. The analysis shall be performed to determine conformance with the contaminant specifications identified in section A.II.1.

## 2. Recordkeeping Requirements for Used Oil & #2 Fuel Oil Usage and Quality

For each shipment of used oil and #2 fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

## 3. Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

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AP Plant

PTI Application: 16 02187

**Issued**

Facility ID: 1677010757

Emissions Unit ID: B003

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

#### 4. ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the ESP:

- a. the secondary voltage, in kilovolts, and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;
- b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and
- c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).

The permittee shall record the following information for each day:

- a. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
  - b. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.
5. The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
- a. during all periods of start-up until the ESP is operational or until the inlet temperature of

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the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and

b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

The temperature monitor and recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the emissions unit exhaust gases in degrees Fahrenheit.

6. The permittee shall maintain monthly records of the following information in emission units B003 - B005:

- a. the number of gallons of #2 fuel oil burned;
- b. the number of gallons of used oil burned;
- c. the pounds of wood burned;
- d. the cubic feet of natural gas burned;
- e. the rolling, 12-month summation of each fuel used;
- f. the calculations and the results of the determination that the formula in term A.II.2 was met;
- g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the used oil burned figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative used oil burned levels for each calendar month.

#### IV. Reporting Requirements

1. The permittee shall notify the USEPA and the Ohio EPA in writing if used oil which exceeds the specifications in A.II.1 is fired in this emissions unit. The notification shall include a copy of the used oil analysis and shall be sent to the USEPA and the Ohio EPA within 30 days of becoming aware of such occurrence.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of used oil and #2 fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat

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content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:

- a. the total quantity of used oil and #2 fuel oil received in each shipment (gallons);
- b. the weighted\* average sulfur dioxide emission rate (pounds/mmBtu) for the used oil and #2 fuel oil received during the calendar month; and
- c. the weighted\* average heat content (Btu/gallon) of the used oil and #2 fuel oil received during the calendar month.

\*In proportion to the quantity of used oil and #2 fuel oil received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the used oil and #2 fuel oil shipments received during the previous calendar quarters.

3. The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit deviation (excursion) reports which identify:
  - a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i); and
  - b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit.
5. The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative used oil burned and SO<sub>2</sub> emission levels (compliance with SO<sub>2</sub> emissions levels is demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B005.
7. The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.
8. The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

## V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 90 days of the start-up of the combustion of waste oil.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO<sub>x</sub>, OC, and CO. The emission testing shall be conducted while the emissions unit is combusting the worst case fuel for each pollutant.

- c. The following test method(s) shall be employed to demonstrate compliance with the following allowable mass emission rate(s):

for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A (while firing wood);

for OC, Method 25 of 40 CFR Part 60, Appendix A (while firing wood); and

for CO, Method 10 of 40 CFR Part 60, Appendix A (while firing wood).

Alternative U.S. EPA approved 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.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the ESP control system) shall be determined in accordance with approved test methods and procedures. The control efficiency shall be determined to evaluate the actual percent reduction in emissions of the ESP for modeling purposes.

2. 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).
3. 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.
4. 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.
5. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

0.11 lb particulate / MMBtu of actual heat input

19.8 lbs/hr particulates

86.72 tpy particulates

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 5, 40 CFR Part 60, Appendix A.

b.Emission Limitation:

0.020 lb particulate / MMBtu of actual heat input, when combusting only natural gas

Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs particulate per 10<sup>6</sup> scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb particulate per mmBtu.

c.Emission Limitation:

70.3 lbs/hr NO<sub>x</sub>

307.9 tpy NO<sub>x</sub>

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 7, 40 CFR Part 60, Appendix A.

d.Emission Limitation:

101 lbs/hr SO<sub>2</sub>

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

e.Emission Limitation:

0.50 weight percent sulfur content for all oil fired

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

f.Emission Limitation:

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27.0 lbs/hr CO

118.3 tpy CO

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 10, 40 CFR Part 60, Appendix A.

g.Emission Limitation:

42.0 lbs/hr OC  
183.96 tpy OC

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 25, 40 CFR Part 60, Appendix A.

h.Emission Limitation:

0.0843 lb/hr Pb  
0.4 tpy Pb

Applicable Compliance Method:

Multiply the AP-42 [(10/96) Table 1.11-1] emission factor for waste oil combustion of 55\*L lb Pb per 10<sup>3</sup> gallons combusted (L= maximum lead content of fuel in wt%) by the maximum combustion rate and apply the ESP emission reduction factor determined during the last stack test that demonstrated the emissions unit was in compliance.

i.Emission Limitation:

20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction

Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

j.Emission Limitation:

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Emissions Unit ID: B003

Combustion of only "on-specification used oil."

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 of these T&Cs.

k.Emission Limitation:

48.5 tpy SO<sub>2</sub> from the combustion of waste oil in combined emission units B003 - B005

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.6 of these T&Cs.

## **VI. Miscellaneous Requirements**

1. The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements contained in permits to install 16-037 and 16-294 issued on March 17, 1976 and July 11, 1984, respectively.

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B003- Unit #1, Babcock and Wilcox 180 MMBtu/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05	None

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for these emissions units (B003 - B005) was evaluated based on the actual

Emissions Unit ID: B003

materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: lead

TLV (ug/m3): 50

Maximum Hourly Emission Rate (lbs/hr): 0.525

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.3204

MAGLC (ug/m3): 1.19

Pollutant: arsenic

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.102

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0621

MAGLC (ug/m3): 0.24

Pollutant: cadmium

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.102

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0625

MAGLC (ug/m3): 0.24

Pollutant: chromium

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.104

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0636

MAGLC (ug/m3): 0.24

Pollutant: cobalt

TLV (ug/m3): 20

Maximum Hourly Emission Rate (lbs/hr): 0.0000

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0001

MAGLC (ug/m3): 0.48

Pollutant: manganese

TLV (ug/m3): 200

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.024

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MAGLC (ug/m3): 4.76

Pollutant: mercury

TLV (ug/m<sup>3</sup>): 10

Maximum Hourly Emission Rate (lbs/hr): 0.086

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0521

MAGLC (ug/m<sup>3</sup>): 0.24

Pollutant: nickel

TLV (ug/m<sup>3</sup>): 100

Maximum Hourly Emission Rate (lbs/hr): 0.063

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0388

MAGLC (ug/m<sup>3</sup>): 2.38

Pollutant: hydrogen chloride

TLV (ug/m<sup>3</sup>): 5,496

Maximum Hourly Emission Rate (lbs/hr): 127.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 77.73

MAGLC (ug/m<sup>3</sup>): 130.87

Pollutant: PCB

TLV (ug/m<sup>3</sup>): 500

Maximum Hourly Emission Rate (lbs/hr): 0.011

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0068

MAGLC (ug/m<sup>3</sup>): 11.90

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists"

(ACGIH)," than the lowest TLV value previously modeled;

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

#### **VI. Miscellaneous Requirements**

None



	Applicable Emissions <u>Limitations/Control Measures</u>	
OAC rule 3745-18-06(D)		lead (Pb) emissions shall not exceed 0.0843 lb/hr and 0.4 tpy Pb;
40 CFR 60, Subpart E	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B) &(C), 3745-17-09, 3745-18-06(D), 3745-31-05(D), and 40 CFR 60 Subpart E.	0.50 weight percent sulfur content for all oil fired; 20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction.
OAC rule 3745-31-05(D)		See A.2.a below.
	When burning natural gas and/or no.2 fuel oil exclusively, particulate (PM) emissions shall not exceed 0.02 lb / MMBtu of actual heat input;	See A.2.b below.
	When burning a combination of the following fuels: natural gas, no.2 fuel oil, waste oil and/or wood (as described in term A.II.2), particulate (PM) emissions shall not exceed 0.11 lb / MMBtu of actual heat input , 19.8 lbs/hr and, 86.72 tpy PM;	Applicable particulate rule when burning natural gas and/or no.2 fuel oil, see A.2.b below.
	nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 70.3 lbs/hr and 307.9 tpy NO <sub>x</sub> ;	Applicable particulate rule when burning waste oil, see A.2.b below.
	sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 101 lbs/hr;	Applicable particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
	carbon monoxide (CO) emissions shall not exceed 27.0 lbs/hr and 118.3 tpy CO;	Applicable sulfur dioxide rule when burning any of the following: natural gas, fuel oil, and waste oil. see, see A.2.b below.
	organic compounds (OC) emissions shall not exceed 42 lbs/hr and 183.96 tpy OC;	Applicable federal particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
		This emissions unit is limited to burning natural gas, #2 fuel oil, wood (as described in term A.II.3), used oil or a combination of these fuels. The amount of these fuels for emissions unit B003

through B005 is limited by the equation found in paragraph A.II.2. and by a limit of no more than 1,000,000 gallons of used oil per rolling 12-month period.

48.5 tons of SO<sub>2</sub> per rolling 12-month period for emissions units B003 through B005 combined.

**2. Additional Terms and Conditions**

- 2.a** All used oil burned in this emissions unit shall be "on-specification used oil" in accordance with the definitions specified in 40 CFR Part 279 and OAC rule 3745-58-50.
- 2.b** The emission limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- 2.c** Based upon information submitted by the applicant in their November 20, 2001 letter, the annual actual SO<sub>2</sub> emissions are 8.9 tons per year based upon years 1999 and 2000 reporting.

**II. Operational Restrictions**

1. Used Oil Restrictions:

On-specification used oil shall not be fired during emissions unit start-ups or shutdowns. On-specification used oil shall not be fired until the emissions unit reaches normal operating temperatures.

All on-specification used oil fired in this emissions unit shall meet the following specifications:

Contaminants/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum
PCB's	50 ppb, maximum
total halogens	4000 ppm, maximum
mercury	1 ppm, maximum
flash point	100 degrees Fahrenheit, minimum
heat content	100,000 Btu/gallon, minimum

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sulfur

0.5%, by weight, maximum

Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph C of OAC rule 3745-58-50. Therefore, the permittee may burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm maximum) only if the permittee has demonstrated to the Ohio EPA's Division of Hazardous Waste Management that the used oil does not contain any hazardous wastes.

2. Emission and Used Oil Burned Restrictions:

In order to avoid applicability of the Prevention of Significant Deterioration rules, Akron Thermal shall restrict the use of fuels burned in emissions units B003 through B005 combined by the following formula#:

$$\left( \frac{W \text{ gal of \#2 fuel oil burned}}{\text{rolling 12-month period}} \right) \left( \frac{142(S_1) \text{ lbs of SO}_2}{1000 \text{ gal of fuel oil}} \right) +$$

$$\left( \frac{X \text{ gal of used oil burned}}{\text{rolling 12-month period}} \right) \left( \frac{147(S_2) \text{ lbs of SO}_2}{1000 \text{ gal of used oil}} \right) +$$

$$\left( \frac{Y \text{ lbs of wood burned}}{\text{rolling 12-month period}} \right) \left( \frac{0.025 \text{ lbs of SO}_2}{10^6 \text{ BTU}} \right) \left( \frac{4500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left( \frac{Z \text{ CF natural gas burned}}{\text{rolling 12-month period}} \right) \left( \frac{0.6 \text{ lbs of SO}_2}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left( \frac{97000 \text{ lbs of SO}_2}{\text{rolling 12-month period}} \right)$$

Where:

*W* is the number of gallons of #2 fuel oil burned per rolling 12-month period

*X* is the number of gallons of used oil burned per rolling 12-month period

*Y* is the pounds of wood burned per rolling 12-month period

*Z* is the cubic feet of natural gas burned per rolling 12-month period

*S*<sub>1</sub> is the 12-month rolling weight percent sulfur in the #2 fuel oil

*S*<sub>2</sub> is the 12-month rolling weight percent sulfur in the used oil

# note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above SO<sub>2</sub> lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them,

provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and Akron Thermal.

and in addition during the first 12 calendar months of operation while burning used oil following the issuance of this permit, the permittee shall not exceed the used oil burned limitations specified in the following table:

Month	Maximum Allowable Used Oil Burned (B003 - B005) (gallons)
1	200,000
1 - 2	200,000
1 - 3	400,000
1 - 4	400,000
1 - 5	600,000
1 - 6	600,000
1 - 7	800,000
1 - 8	800,000
1 - 9	1,000,000
1 - 10	1,000,000
1 - 11	1,000,000
1 - 12	1,000,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual used oil burned limitation shall be based upon a rolling, 12-month summation of used oil burned, in gallons.

3. Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

4. Requirements for the Sampling and Analysis of the Used Oil & #2 Fuel Oil Burned:

The permittee shall collect or require the oil supplier to collect a representative grab sample for

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each shipment of #2 fuel oil and used oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

5. ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this emissions unit, except the ESP may not be operated during periods of start-up until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit at the inlet of the ESP or during periods of shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit at the inlet of the ESP.

The operation of the control equipment outside of the restrictions established above may or may not indicate a mass emission violation. If required by the Ohio EPA, compliance with the mass emission limitations shall be determined by performing concurrent mass emission tests and parameter readings, using US EPA-approved methods and procedures. The results of any required emission tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of the restrictions specified above is indicative of a possible violation of the mass emission limitations.

### III. Monitoring and/or Recordkeeping Requirements

1. Used Oil Requirements:

The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

- a. date of shipment or delivery;
- b. quantity of used oil received;
- c. the Btu value of the used oil;
- d. the flash point of the used oil;
- e. the arsenic content;
- f. the cadmium content;
- g. the chromium content;
- h. the lead content;

- i. the PCB content;
- j. the total halogen content;
- k. the mercury content; and
- l. the sulfur content.

The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by the facility, of any used oil stored at this facility, or of any used oil sampled at the emissions unit.

The permittee shall conduct or have performed an analysis of a representative sample of used oil from any used oil storage tank located at the facility on an annual basis. The analysis shall be performed to determine conformance with the contaminant specifications identified in section A.II.1.

## 2. Recordkeeping Requirements for Used Oil & #2 Fuel Oil Usage and Quality

For each shipment of used oil and #2 fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

## 3. Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and

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includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

#### 4. ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the ESP:

- a. the secondary voltage, in kilovolts, and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;
- b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and
- c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).

The permittee shall record the following information for each day:

- d. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
  - e. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.
5. The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
- a. during all periods of start-up until the ESP is operational or until the inlet temperature of

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the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and

b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

The temperature monitor and recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the emissions unit exhaust gases in degrees Fahrenheit.

6. The permittee shall maintain monthly records of the following information in emission units B003 - B005:
- a. the number of gallons of #2 fuel oil burned;
  - b. the number of gallons of used oil burned;
  - c. the pounds of wood burned;
  - d. the cubic feet of natural gas burned;
  - e. the rolling, 12-month summation of each fuel used;
  - f. the calculations and the results of the determination that the formula in term A.II.2 was met;
  - g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the used oil burned figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative used oil burned levels for each calendar month.

#### IV. Reporting Requirements

1. The permittee shall notify the USEPA and the Ohio EPA in writing if used oil which exceeds the specifications in A.II.1 is fired in this emissions unit. The notification shall include a copy of the used oil analysis and shall be sent to the USEPA and the Ohio EPA within 30 days of becoming aware of such occurrence.
2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of used oil and #2 fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat

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content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:

- a. the total quantity of used oil and #2 fuel oil received in each shipment (gallons);
- b. the weighted\* average sulfur dioxide emission rate (pounds/mmBtu) for the used oil and #2 fuel oil received during the calendar month; and
- c. the weighted\* average heat content (Btu/gallon) of the used oil and #2 fuel oil received during the calendar month.

\*In proportion to the quantity of used oil and #2 fuel oil received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the used oil and #2 fuel oil shipments received during the previous calendar quarters.

3. The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit deviation (excursion) reports which identify:
  - a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i); and
  - b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit.
5. The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative used oil burned and SO<sub>2</sub> emission levels (compliance with SO<sub>2</sub> emissions levels is demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B005.
7. The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.
8. The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

## V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 90 days of the start-up of the combustion of waste oil.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO<sub>x</sub>, OC, and CO. The emission testing shall be conducted while the emissions unit is combusting the worst case fuel for each pollutant.

- c. The following test method(s) shall be employed to demonstrate compliance with the following allowable mass emission rate(s):

for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A (while firing wood);

for OC, Method 25 of 40 CFR Part 60, Appendix A (while firing wood); and

for CO, Method 10 of 40 CFR Part 60, Appendix A (while firing wood).

Alternative U.S. EPA approved 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.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the ESP control system) shall be determined in accordance with approved test methods and procedures. The control efficiency shall be determined to evaluate the actual percent reduction in emissions of the ESP for modeling purposes.

2. 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).
3. 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.
4. 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.
5. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

0.11 lb particulate / MMBtu of actual heat input

19.8 lbs/hr particulates

86.72 tpy particulates

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 5, 40 CFR Part 60, Appendix A.

## b.Emission Limitation:

0.020 lb particulate / MMBtu of actual heat input, when combusting only natural gas

## Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs particulate per 10<sup>6</sup> scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb particulate per mmBtu.

## c.Emission Limitation:

70.3 lbs/hr NO<sub>x</sub>

307.9 tpy NO<sub>x</sub>

## Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 7, 40 CFR Part 60, Appendix A.

## d.Emission Limitation:

101 lbs/hr SO<sub>2</sub>

## Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

## e.Emission Limitation:

0.50 weight percent sulfur content for all oil fired

## Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

## f.Emission Limitation:

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27.0 lbs/hr CO

118.3 tpy CO

## Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 10, 40 CFR Part 60, Appendix A.

## g. Emission Limitation:

42.0 lbs/hr OC  
183.96 tpy OC

## Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 25, 40 CFR Part 60, Appendix A.

## h. Emission Limitation:

0.0843 lb/hr Pb  
0.4 tpy Pb

## Applicable Compliance Method:

Multiply the AP-42 [(10/96) Table 1.11-1] emission factor for waste oil combustion of 55\*L lb Pb per 10<sup>3</sup> gallons combusted (L= maximum lead content of fuel in wt%) by the maximum combustion rate and apply the ESP emission reduction factor determined during the last stack test that demonstrated the emissions unit was in compliance.

## i. Emission Limitation:

20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction

## Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

## j. Emission Limitation:

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Combustion of only "on-specification used oil."

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 of these T&Cs.

k.Emission Limitation:

48.5 tpy SO<sub>2</sub> from the combustion of waste oil in combined emission units B003 - B005

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.6 of these T&Cs.

## **VI. Miscellaneous Requirements**

1. The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements contained in permits to install 16-037 and 16-294 issued on March 17, 1976 and July 11, 1984, respectively.

**B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004- Unit #2, Babcock and Wilcox 180 MMBTU/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05	None

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for these emissions units (B003 - B005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level

concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: lead

TLV (ug/m3): 50

Maximum Hourly Emission Rate (lbs/hr): 0.525

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.3204

MAGLC (ug/m3): 1.19

Pollutant: arsenic

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.102

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0621

MAGLC (ug/m3): 0.24

Pollutant: cadmium

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.102

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0625

MAGLC (ug/m3): 0.24

Pollutant: chromium

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.104

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0636

MAGLC (ug/m3): 0.24

Pollutant: cobalt

TLV (ug/m3): 20

Maximum Hourly Emission Rate (lbs/hr): 0.0000

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0001

MAGLC (ug/m3): 0.48

Pollutant: manganese

TLV (ug/m3): 200

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.024

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MAGLC (ug/m3): 4.76

Pollutant: mercury

TLV (ug/m<sup>3</sup>): 10

Maximum Hourly Emission Rate (lbs/hr): 0.086

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0521

MAGLC (ug/m<sup>3</sup>): 0.24

Pollutant: nickel

TLV (ug/m<sup>3</sup>): 100

Maximum Hourly Emission Rate (lbs/hr): 0.063

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0388

MAGLC (ug/m<sup>3</sup>): 2.38

Pollutant: hydrogen chloride

TLV (ug/m<sup>3</sup>): 5,496

Maximum Hourly Emission Rate (lbs/hr): 127.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 77.73

MAGLC (ug/m<sup>3</sup>): 130.87

Pollutant: PCB

TLV (ug/m<sup>3</sup>): 500

Maximum Hourly Emission Rate (lbs/hr): 0.011

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0068

MAGLC (ug/m<sup>3</sup>): 11.90

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists

(ACGIH)," than the lowest TLV value previously modeled;

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

#### **VI. Miscellaneous Requirements**

None



OAC rule 3745-18-06(D)	Applicable Emissions <u>Limitations/Control Measures</u>	lead (Pb) emissions shall not exceed 0.0843 lb/hr and 0.4 tpy Pb;
40 CFR 60, Subpart E	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-17-10(B) &(C), 3745-17-09, 3745-18-06(D), 3745-31-05(D), and 40 CFR 60 Subpart E.	0.50 weight percent sulfur content for all oil fired;  20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction.
OAC rule 3745-31-05(D)	When burning natural gas and/or no.2 fuel oil exclusively, particulate (PM) emissions shall not exceed 0.02 lb / MMBtu of actual heat input;	See A.2.a below.  See A.2.b below.
	When burning a combination of the following fuels: natural gas, no.2 fuel oil, waste oil and/or wood (as described in term A.II.2), particulate (PM) emissions shall not exceed 0.11 lb / MMBtu of actual heat input , 19.8 lbs/hr and, 86.72 tpy PM;	Applicable particulate rule when burning natural gas and/or no.2 fuel oil, see A.2.b below.  Applicable particulate rule when burning waste oil, see A.2.b below.  Applicable particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
	nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 70.3 lbs/hr and 307.9 tpy NO <sub>x</sub> ;	Applicable sulfur dioxide rule when burning any of the following: natural gas, fuel oil, and waste oil. see, see A.2.b below.
	sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 101 lbs/hr;	Applicable federal particulate rule when burning wood (as described in term A.II.2), see A.2.b below.
	carbon monoxide (CO) emissions shall not exceed 27.0 lbs/hr and 118.3 tpy CO;	This emissions unit is limited to burning natural gas, #2 fuel oil, wood (as described in term A.II.3), used oil or a combination of these fuels. The amount of these fuels for emissions unit B003

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through B005 is limited by the equation found in paragraph A.II.2. and by a limit of no more than 1,000,000 gallons of used oil per rolling 12-month period.

48.5 tons of SO<sub>2</sub> per rolling 12-month period for emissions units B003 through B005 combined.

## **2. Additional Terms and Conditions**

- 2.a** All used oil burned in this emissions unit shall be "on-specification used oil" in accordance with the definitions specified in 40 CFR Part 279 and OAC rule 3745-58-50.
- 2.b** The emission limitation established by this rule is less stringent than the emission limitation established by OAC rule 3745-31-05.
- 2.c** Based upon information submitted by the applicant in their November 20, 2001 letter, the annual actual SO<sub>2</sub> emissions are 8.9 tons per year based upon years 1999 and 2000 reporting.

## **II. Operational Restrictions**

### **1. Used Oil Restrictions:**

On-specification used oil shall not be fired during emissions unit start-ups or shutdowns. On-specification used oil shall not be fired until the emissions unit reaches normal operating temperatures.

All on-specification used oil fired in this emissions unit shall meet the following specifications:

Contaminants/Property	Allowable Specifications
arsenic	5 ppm, maximum
cadmium	2 ppm, maximum
chromium	10 ppm, maximum
lead	100 ppm, maximum

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PCB's	50 ppm, maximum
total halogens	4000 ppm, maximum
mercury	1 ppm, maximum
flash point	100 degrees Fahrenheit, minimum
heat content	100,000 Btu/gallon, minimum
sulfur	0.5%, by weight, maximum

Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under paragraph C of OAC rule 3745-58-50. Therefore, the permittee may burn used oil exceeding 1000 ppm of total halogens (but less than 4000 ppm maximum) only if the permittee has demonstrated to the Ohio EPA's Division of Hazardous Waste Management that the used oil does not contain any hazardous wastes.

2. Emission and Used Oil Burned Restrictions:

In order to avoid applicability of the Prevention of Significant Deterioration rules, Akron Thermal shall restrict the use of fuels burned in emissions units B003 through B005 combined by the following formula#:

$$\left( \frac{W \text{ gal of \#2 fuel oil burned}}{\text{rolling 12-month period}} \right) \left( \frac{142(S_1) \text{ lbs of SO}_2}{1000 \text{ gal of fuel oil}} \right) +$$

$$\left( \frac{X \text{ gal of used oil burned}}{\text{rolling 12-month period}} \right) \left( \frac{147(S_2) \text{ lbs of SO}_2}{1000 \text{ gal of used oil}} \right) +$$

$$\left( \frac{Y \text{ lbs of wood burned}}{\text{rolling 12-month period}} \right) \left( \frac{0.025 \text{ lbs of SO}_2}{10^6 \text{ BTU}} \right) \left( \frac{4500 \text{ BTU}}{\text{lbs of wood}} \right) +$$

$$\left( \frac{Z \text{ CF natural gas burned}}{\text{rolling 12-month period}} \right) \left( \frac{0.6 \text{ lbs of SO}_2}{10^6 \text{ CF of natural gas}} \right) \leq$$

$$\left( \frac{97000 \text{ lbs of SO}_2}{\text{rolling 12-month period}} \right)$$

Where:

*W* is the number of gallons of #2 fuel oil burned per rolling 12-month period

*X* is the number of gallons of used oil burned per rolling 12-month period

*Y* is the pounds of wood burned per rolling 12-month period

*Z* is the cubic feet of natural gas burned per rolling 12-month period

*S*<sub>1</sub> is the 12-month rolling weight percent sulfur in the #2 fuel oil

*S*<sub>2</sub> is the 12-month rolling weight percent sulfur in the used oil

# note that stack testing and/or fuel analysis required in this permit might change the emission factors used to calculate the above SO<sub>2</sub> lbs value based upon a rolling 12-month period listed above. Should more accurate emission factors be developed, the permittee shall use them,

provided the new emission factors are mutually agreeable to the Ohio EPA, Akron RAQMD, and Akron Thermal.

and in addition during the first 12 calendar months of operation while burning used oil following the issuance of this permit, the permittee shall not exceed the used oil burned limitations specified in the following table:

Month	Maximum Allowable Used Oil Burned (B003 - B005) (gallons)
1	200,000
1 - 2	200,000
1 - 3	400,000
1 - 4	400,000
1 - 5	600,000
1 - 6	600,000
1 - 7	800,000
1 - 8	800,000
1 - 9	1,000,000
1 - 10	1,000,000
1 - 11	1,000,000
1 - 12	1,000,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual used oil burned limitation shall be based upon a rolling, 12-month summation of used oil burned, in gallons.

3. Wood Burned Restrictions:

The permittee shall only burn live tree trimmings and whole, but chipped trees from area land clearing operations. The permittee shall not burn wood or wood waste derived from any manufacturing operations or any other operation which coats, treats, or otherwise contaminates the wood or wood waste.

The permittee shall only burn wet wood that has a moisture content of 20% or greater.

4. Requirements for the Sampling and Analysis of the Used Oil & #2 Fuel Oil Burned:

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of #2 fuel oil and used oil that is received for burning in this emissions unit. The

permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

5. ESP Restrictions:

The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation.

The permittee shall operate the ESP during any operation of this emissions unit, except the ESP may not be operated during periods of start-up until the exhaust gases have achieved a temperature of 250 degrees Fahrenheit at the inlet of the ESP or during periods of shutdown when the temperature of the exhaust gases has dropped below 250 degrees Fahrenheit at the inlet of the ESP.

The operation of the control equipment outside of the restrictions established above may or may not indicate a mass emission violation. If required by the Ohio EPA, compliance with the mass emission limitations shall be determined by performing concurrent mass emission tests and parameter readings, using US EPA-approved methods and procedures. The results of any required emission tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of the restrictions specified above is indicative of a possible violation of the mass emission limitations.

### III. Monitoring and/or Recordkeeping Requirements

1. Used Oil Requirements:

The permittee shall receive a chemical analysis with each shipment of used oil from the supplier. The analysis shall identify the name and address of the supplier, the supplier's USEPA identification number, and the following information:

- a. date of shipment or delivery;
- b. quantity of used oil received;
- c. the Btu value of the used oil;
- d. the flash point of the used oil;
- e. the arsenic content;

- f. the cadmium content;
- g. the chromium content;
- h. the lead content;
- i. the PCB content;
- j. the total halogen content;
- k. the mercury content; and
- l. the sulfur content.

The Director or any authorized representative of the Director may require or may conduct periodic, detailed chemical analyses through an independent laboratory of any used oil shipment received by the facility, of any used oil stored at this facility, or of any used oil sampled at the emissions unit.

The permittee shall conduct or have performed an analysis of a representative sample of used oil from any used oil storage tank located at the facility on an annual basis. The analysis shall be performed to determine conformance with the contaminant specifications identified in section A.II.1.

## 2. Recordkeeping Requirements for Used Oil & #2 Fuel Oil Usage and Quality

For each shipment of used oil and #2 fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

## 3. Continuous Opacity Monitoring Requirements:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers,

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and data recording/processing hardware and software.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

#### 4. ESP Requirements:

The permittee shall monitor and record the following on an hourly basis during any operation of the ESP:

- a. the secondary voltage, in kilovolts, and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;
- b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kilovolts) by the secondary current (in amps) for each TR set); and
- c. the total power input to the ESP for each hour (add together the power inputs for the TR sets operating during the hour).

The permittee shall record the following information for each day:

- d. all 3-hour blocks of time during which the average total combined power input to the ESP, when the emissions unit was in operation, was less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emissions test that demonstrated the emissions unit was in compliance with the particulate emission limitation; and
  - e. the duration of any downtime for the ESP monitoring equipment for secondary voltage and current specified above, the ESP sections that are out of service, and the duration of the downtime for each section, when the associated emissions unit was in operation.
5. The permittee shall operate and maintain a temperature monitor and recorder that measures and records the temperature of the boiler exhaust gases entering the ESP as follows:
- a. during all periods of start-up until the ESP is operational or until the inlet temperature of the ESP achieves the temperature level specified in OAC rule 3745-17-07(A)(3)(a)(i); and

- b. during all periods of shutdown until the inlet temperature to the ESP drops below the temperature level specified in OAC rule 3745-17-07(A)(3)(b)(i).

The temperature monitor and recorder shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the emissions unit exhaust gases in degrees Fahrenheit.

- 6. The permittee shall maintain monthly records of the following information in emission units B003 - B005:
  - a. the number of gallons of #2 fuel oil burned;
  - b. the number of gallons of used oil burned;
  - c. the pounds of wood burned;
  - d. the cubic feet of natural gas burned;
  - e. the rolling, 12-month summation of each fuel used;
  - f. the calculations and the results of the determination that the formula in term A.II.2 was met;
  - g. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the used oil burned figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative used oil burned levels for each calendar month.

#### **IV. Reporting Requirements**

- 1. The permittee shall notify the USEPA and the Ohio EPA in writing if used oil which exceeds the specifications in A.II.1 is fired in this emissions unit. The notification shall include a copy of the used oil analysis and shall be sent to the USEPA and the Ohio EPA within 30 days of becoming aware of such occurrence.
- 2. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of used oil and #2 fuel oil which is received for burning in this emissions unit.

The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:

- a. the total quantity of used oil and #2 fuel oil received in each shipment (gallons);
- b. the weighted\* average sulfur dioxide emission rate (pounds/mmBtu) for the used oil and #2 fuel oil received during the calendar month; and
- c. the weighted\* average heat content (Btu/gallon) of the used oil and #2 fuel oil received during the calendar month.

\*In proportion to the quantity of used oil and #2 fuel oil received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the used oil and #2 fuel oil shipments received during the previous calendar quarters.

3. The permittee shall submit reports (hardcopy and electronic) within 30 days following the end of each calendar quarter to the Akron Regional Air Quality Management District documenting all instances of opacity values in excess of the limitations specified above, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also document any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit deviation (excursion) reports which identify:
  - a. all periods of time during start-up and shutdown of the emissions unit when the ESP was not in operation and the temperature of the emissions unit exhaust gases exceeded the temperature levels specified in OAC rule 3745-17-07(A)(3)(a)(i) and (b)(i); and
  - b. all 3-hour blocks of time during which the average total combined power input to all fields of the ESP does not comply with the operational restriction specified in Section A.II of this permit.
5. The permittee shall submit quarterly reports which identify the sections of the ESP that were out of service along with the time period(s) involved. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the information obtained during the previous calendar quarter.
6. The permittee shall submit deviation (excursion) reports which identify all exceedances of rolling, 12-month limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative used oil burned and SO<sub>2</sub> emission levels (compliance with SO<sub>2</sub> emissions levels is demonstrated thru the use of the formula described in term A.II.2) for emission units B003 - B005.
7. The deviation reports shall be submitted as specified in General Condition A.1.c of this permit.
8. The permittee shall submit quarterly reports which specify the total quantity of each fuel combusted in this emissions unit for each calendar month during the calendar quarter. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

## V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 90 days of the start-up of the combustion of waste oil.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for NO<sub>x</sub>, OC, and CO. The emission testing shall be conducted while the emissions unit is combusting the worst case fuel for each pollutant.

- c. The following test method(s) shall be employed to demonstrate compliance with the following allowable mass emission rate(s):

for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A (while firing wood);

for OC, Method 25 of 40 CFR Part 60, Appendix A (while firing wood); and

for CO, Method 10 of 40 CFR Part 60, Appendix A (while firing wood).

Alternative U.S. EPA approved 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.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the ESP control system) shall be determined in accordance with approved test methods and procedures. The control efficiency shall be determined to evaluate the actual percent reduction in emissions of the ESP for modeling purposes.

2. 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).
3. 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.
4. 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.
5. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

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a. Emission Limitation:

0.11 lb particulate / MMBtu of actual heat input

19.8 lbs/hr particulates

86.72 tpy particulates

Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 5, 40 CFR Part 60, Appendix A.

b. Emission Limitation:

0.020 lb particulate / MMBtu of actual heat input, when combusting only natural gas

## Applicable Compliance Method:

The AP-42 [(7/98) Table 1.4-2] emission factor for natural gas combustion is 7.6 lbs particulate per 10<sup>6</sup> scf. This factor is based on an average natural gas heating value of 1,020 Btu/scf and is equivalent to 0.007451 lb particulate per mmBtu.

## c. Emission Limitation:

70.3 lbs/hr NO<sub>x</sub>  
307.9 tpy NO<sub>x</sub>

## Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 7, 40 CFR Part 60, Appendix A.

## d. Emission Limitation:

101 lbs/hr SO<sub>2</sub>

## Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

## e. Emission Limitation:

0.50 weight percent sulfur content for all oil fired

## Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.1 and 2 of these T&Cs.

## f. Emission Limitation:

27.0 lbs/hr CO  
118.3 tpy CO

## Applicable Compliance Method:

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Compliance shall be determined by emission testing in accordance with Method 10, 40 CFR Part 60, Appendix A.

## g. Emission Limitation:

42.0 lbs/hr OC  
183.96 tpy OC

## Applicable Compliance Method:

Compliance shall be determined by emission testing in accordance with Method 25, 40 CFR Part 60, Appendix A.

## h. Emission Limitation:

0.0843 lb/hr Pb  
0.4 tpy Pb

## Applicable Compliance Method:

Multiply the AP-42 [(10/96) Table 1.11-1] emission factor for waste oil combustion of 55\*L lb Pb per 10<sup>3</sup> gallons combusted (L= maximum lead content of fuel in wt%) by the maximum combustion rate and apply the ESP emission reduction factor determined during the last stack test that demonstrated the emissions unit was in compliance.

## i. Emission Limitation:

20% opacity as a 6-minute average, except during periods of startup, shutdown or malfunction

## Applicable Compliance Method:

Compliance with the visible emission limitation shall be demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

## j. Emission Limitation:

Combustion of only "on-specification used oil."

## Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record

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keeping requirements of section III.1 of these T&Cs.

k.Emission Limitation:

48.5 tpy SO<sub>2</sub> from the combustion of waste oil in combined emission units B003 - B005

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above limit based upon the record keeping requirements of section III.6 of these T&Cs.

**VI. Miscellaneous Requirements**

1. The terms and conditions in this Permit to Install shall supersede all the air pollution control requirements contained in permits to install 16-037 and 16-294 issued on March 17, 1976 and July 11, 1984, respectively.

**B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B005- Unit #3, Babcock and Wilcox 180 MMBTU/hr wood, natural gas, No.2 fuel oil, and waste oil fired boiler for steam generation, controlled with an electrostatic precipitator - modification to combust waste oil and avoid PSD review	OAC rule 3745-31-05	None

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for these emissions units (B003 - B005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour

maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: lead

TLV (ug/m3): 50

Maximum Hourly Emission Rate (lbs/hr): 0.525

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.3204

MAGLC (ug/m3): 1.19

Pollutant: arsenic

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.102

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0621

MAGLC (ug/m3): 0.24

Pollutant: cadmium

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.102

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0625

MAGLC (ug/m3): 0.24

Pollutant: chromium

TLV (ug/m3): 10

Maximum Hourly Emission Rate (lbs/hr): 0.104

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0636

MAGLC (ug/m3): 0.24

Pollutant: cobalt

TLV (ug/m3): 20

Maximum Hourly Emission Rate (lbs/hr): 0.0000

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0001

MAGLC (ug/m3): 0.48

Pollutant: manganese

TLV (ug/m3): 200

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.024

MAGLC (ug/m3): 4.76

Pollutant: mercury

TLV (ug/m<sup>3</sup>): 10

Maximum Hourly Emission Rate (lbs/hr): 0.086

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0521

MAGLC (ug/m<sup>3</sup>): 0.24

Pollutant: nickel

TLV (ug/m<sup>3</sup>): 100

Maximum Hourly Emission Rate (lbs/hr): 0.063

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0388

MAGLC (ug/m<sup>3</sup>): 2.38

Pollutant: hydrogen chloride

TLV (ug/m<sup>3</sup>): 5,496

Maximum Hourly Emission Rate (lbs/hr): 127.4

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 77.73

MAGLC (ug/m<sup>3</sup>): 130.87

Pollutant: PCB

TLV (ug/m<sup>3</sup>): 500

Maximum Hourly Emission Rate (lbs/hr): 0.011

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 0.0068

MAGLC (ug/m<sup>3</sup>): 11.90

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists

(ACGIH)," than the lowest TLV value previously modeled;

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

- 2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

#### **VI. Miscellaneous Requirements**

None