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Facility Name: **ROSS CAST METALS**

Application Number: **01-6871**

Date: **April 29, 1998**

**GENERAL PERMIT CONDITIONS**

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCE(S)

The proposed source(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 are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Ohio 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 Ohio Administrative Code

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(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 prove to be inadequate or cannot meet applicable standards.

#### PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 15 days of the effective date of this permit to install.

#### 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.

#### APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

#### 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.

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PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be made at least 90 days prior to start-up of the source.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for period of up to one year from the date the source commenced operation. This 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.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Ross Cass Metals** located in **Fairfield** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio EPA Source Number	F002			
			F009	
F001	F002 Cont'd			
			G001	
		F004		
		F004 Cont'd		F006
			F005	
	F003			
			F005 Cont'd	

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			P902	
F006 Cont'd	F008	P004 Cont'd	P902 Cont'd	P903 Cont'd
F007				
		P901		
			P903	
	P004			

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	furnace no. 1	induction furnace no. 3		South pouring operation
Source Identification Description				
Inoculation				
	Electric induction furnace no. 2	Plant roadways and parkways	South shakeout operation	
		Fuel dispensing operation		
		North shakeout operation		
Electric induction	Electric			North pouring operation

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	Sand/mold system	Core sand mixing and baking		
Grinding shop	Mold line			

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	<u>BAT Determination</u>	with the permitted emission limits and applicable rules; 99 percent capture of PM and PM <sub>10</sub> emissions and use of a fabric filter with a PM and PM <sub>10</sub> control efficiency of 99.9 percent.	permitted emission limits and applicable rules; 99 percent capture of PM and PM <sub>10</sub> emissions and use of a fabric filter with a PM and PM <sub>10</sub> control efficiency of 99.9 percent.	Compliance with the permitted emissions limits and applicable rules; 99 percent capture of PM and PM <sub>10</sub> emissions and use of a fabric filter with a PM and PM <sub>10</sub> control efficiency of 99.9 percent. 100 percent capture of OC emissions and use of a thermal incinerator with a minimum DRE of 99 percent.
	Compliance	Compliance with the permitted emission limits and applicable rules; 99.9 percent capture of PM and PM <sub>10</sub> emissions and use of a fabric filter with a PM and PM <sub>10</sub> control efficiency of 99.9 percent.	Compliance with the permitted emission limits and applicable rule; speed control and dust suppression.	Compliance with the permitted emissions limits and applicable rules; 99 percent capture of PM and PM <sub>10</sub> emissions and use of a fabric filter with a PM and PM <sub>10</sub> control
	Compliance	Compliance with the	Compliance with the permitted emission limit and applicability regulations; use of Stage I Vapor Controls.	

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<p>efficiency of 99.9 percent capture of VOC emissions and a thermal incinerator with a minimum DRE of 99 percent.</p> <p>Compliance with the permitted emission limits and</p>	<p>applicable rules; 99 percent capture of PM and PM<sub>10</sub> emissions and use of a fabric filter with a PM and PM<sub>10</sub> control efficiency of 99.9 percent. 100 percent capture of OC emissions and use of a thermal incinerator with a minimum DRE of 99 percent.</p> <p>Compliance with the permitted</p>	<p>emissions limits and applicable rules; 99 percent capture of PM and PM<sub>10</sub> emissions and use of a fabric filter with a PM and PM<sub>10</sub> control efficiency of 99.9 percent. 100 percent capture of OC emissions and use of a thermal incinerator with a minimum DRE of 99 percent.</p> <p>Compliance with the permitted emission limits and applicable rules; 100 percent capture of PM and PM<sub>10</sub> emissions and use of a fabric</p>	<p>filter with a PM and PM<sub>10</sub> control efficiency specified in the Additional Special Terms and Conditions.</p> <p>Compliance with the permitted emission limits and applicable rules; 100 percent capture of PM and PM<sub>10</sub> emissions and use of a fabric filter with a PM and PM<sub>10</sub> control efficiency of 99 percent.</p> <p>Compliance with the permitted</p>	<p>emission limits and applicable rules; 100 percent capture of PM and PM<sub>10</sub> emissions and use of a fabric filter with a PM and PM<sub>10</sub> control efficiency of 99 percent.</p> <p>Compliance with the permitted emission limits and applicable rules; 95 percent capture of PM and PM<sub>10</sub> emissions and use of a fabric filter with a minimum PM and PM<sub>10</sub> control efficiency of 99.9 percent</p>

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	Applicable Federal & OAC Rules			
	3745-31-05			
	3745-17-11			
	(B) (1)			
	3745-17-07			
	(A) (1)	3745-31-05	3745-31-05	3745-31-05
	3745-21-07	3745-17-11		3745-17-11
		(B) (1)		(B) (1)
		3745-17-07		3745-17-07
		(A) (1)		(A) (1)
				3745-21-07
			3745-31-05	
			3745-21-09	
			(R)	
			3745-31-05	
			3745-17-11	
			(B) (1)	
			3745-17-07	
			(A) (1)	
			3745-21-07	
	3745-31-05	3745-31-05		
	3745-17-11	3745-17-11		
	(B) (1)	(B) (1)		
	3745-17-07	3745-17-07		
	(A) (1)	(A) (1)		
				3745-31-05
				3745-17-11

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(B) (1) 3745-17-07	(A) (1) 3745-21-07			
(A) (1) 3745-21-07				
		3745-31-05		
		3745-17-07	3745-31-05	
		(A) (1)	3745-17-11	
		3745-17-11	(B) (1)	
		(B) (1)	3745-17-07	
			(A) (1)	
	3745-31-05			
	3745-17-07	3745-31-05		
	(A) (1)	3745-17-07		
	3745-17-11	(A) (1)		
3745-31-05	(B) (1)	3745-17-11		
		(B) (1)		
3745-17-11				
(B) (1)				
3745-17-07				

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	Permit Allowable Mass Emissions and/or Control/Usage Requirements	PM <sub>10</sub> /hour, 0.024 ton PM <sub>10</sub> /year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions.	Special Terms and Conditions.	Special Terms and Conditions.
0.006 pound PM/hour, 0.026 ton PM/year; 0.0054 pound PM <sub>10</sub> /hour, 0.024 ton PM <sub>10</sub> /year; 0.015 pound OC/hour, 0.07 ton OC/year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions.		0.006 pound PM/hour, 0.026 ton PM/year; 0.0054 pound PM <sub>10</sub> /hour, 0.024 ton PM <sub>10</sub> /year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions.	2.65 tons PM/year See Additional Special Terms and Conditions. 0.073 ton OC/year See Additional Special Terms and Conditions.	0.0096 pound PM/hour, 0.042 ton PM/year, 0.0086 pound PM <sub>10</sub> /hour, 0.038 ton PM <sub>10</sub> /year; 0.036 pound OC/hour, 0.16 ton OC/year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions.
0.006 pound PM/hour, 0.026 ton PM/year; 0.0054 pound PM <sub>10</sub> /hour, 0.024 ton PM <sub>10</sub> /year; 0.015 pound OC/hour, 0.07 ton OC/year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions.		0.006 pound PM/hour, 0.026 ton PM/year; 0.0054 pound PM <sub>10</sub> /hour, 0.024 ton PM <sub>10</sub> /year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions.	0.0096 pound PM/hour, 0.042 ton PM/year; 0.0086 pound PM <sub>10</sub> /hour, 0.038 ton PM <sub>10</sub> /year; 0.036 pound OC/hour, 0.16 ton OC/year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions.	0.0126 pound PM/hour, 0.055 ton PM/year; 0.012 pound PM <sub>10</sub> /hour, 0.053 ton PM <sub>10</sub> /year; 0.09 pound SO <sub>2</sub> /hour, 0.39 ton SO <sub>2</sub> /year;

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0.0063 pound OC/hour , 0.028 ton OC/year ; 0.05 pound No <sub>x</sub> /hou r, 0.22 ton No <sub>x</sub> /yea r; opacity shall not exceed 20 percent as a six minute average except as provide d by rule. See Additio nal Special Terms and Conditi	ons. 0.0126 pound PM/hour, 0.055 ton PM/year; 0.012 pound PM <sub>10</sub> /hour, 0.053 ton PM <sub>10</sub> /year; 0.09 pound SO <sub>2</sub> /hour, 0.39 ton SO <sub>2</sub> /year; 0.0063 pound OC/hour, 0.028 ton OC/year; 0.05 pound No <sub>x</sub> /hour, 0.22 ton No <sub>x</sub> /year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions. 0.0771 pound PM/hour, 0.34 ton	PM/year; 0.068 pound PM <sub>10</sub> /hour, 0.30 ton PM <sub>10</sub> /year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions. 0.0022 pound PM/hour, 0.01 ton PM/year; 0.0019 pound PM <sub>10</sub> /hour, 0.008 ton PM <sub>10</sub> /year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms and Conditions. 0.12 pound PM/hour, 0.53 ton PM/year; 0.11 pound PM <sub>10</sub> hour, 0.48 ton PM <sub>10</sub> /year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See	Additional Special Terms and Conditions. 0.043 pound PM/hour, 0.19 ton PM/year; 0.038 pound PM <sub>10</sub> /hour, 0.17 ton PM <sub>10</sub> /year; 0.0048 pound SO <sub>2</sub> /hour, 0.021 ton SO <sub>2</sub> /year; 0.8 pound No <sub>x</sub> /hour, 3.5 tons No <sub>x</sub> /year; 0.17 pound CO/hour, 0.74 ton CO/year; 0.064 pound OC/hour, 0.28 ton OC/year; opacity shall not exceed 20 percent as a six minute average except as provided by rule. See Additional Special Terms	and Conditions.

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SUMMARY  
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PM	4.0
PM <sub>10</sub>	1.24
SO <sub>2</sub>	.8
OC	.8
NO <sub>x</sub>	3.94
CO	.74

**PERFORMANCE TEST REQUIREMENTS**

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.

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- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
- C. Tests shall be performed for the following source(s) and pollutants(s):

<u>Source</u>	<u>Pollutant(s)</u>
F001 - F008, P901 - P903, P004	PM, PM <sub>10</sub> , control efficiency for PM and PM <sub>10</sub>
F005 - F008	DR2 for OC and mass OC

#### WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

#### MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

#### MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Ohio EPA, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43216.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled

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maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

#### **AIR POLLUTION NUISANCES PROHIBITED**

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

#### **NINETY DAY OPERATING PERIOD**

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C) (4) (b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

#### **GASOLINE DISPENSING FACILITIES**

BAT for any gasoline dispensing operation identified within this permit consists of the use of Stage I vapor balance system. The vapor balance system shall be designed and operated to route at least 90% by weight of the organic compounds in the displaced vapors from the storage tanks to the delivery vessel and shall be equipped with a means to prevent the discharge into the atmosphere of displaced vapors from an unconnected vapor line. This shall be used at all times when filling the tanks.

The transfer of gasoline from a delivery vessel to a stationary storage tank shall be conducted by use of submerged fill into the storage tank. The submerged fill pipe(s) are to be installed so they are within six (6) inches of the bottom of the storage tank. This facility shall be serviced by a bulk gasoline plant or terminal that is in compliance with OAC Rule 3745-21-09(P) or (Q), respectively.

There shall be no leaks in the vapor and liquid lines during the transfer of gasoline.

All fill caps shall be "in place" and clamped during normal storage conditions.

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The gasoline dispensing facility shall repair within 15 days any leaks from the vapor balance system which is employed to meet the requirements of Paragraph (A)(3) of OAC Rule 3745-31-05 or Paragraph (R)(1) of OAC Rule 3745-21-09 when such leaks are equal to or greater than 100% of the lower explosive limit of propane, as determined under Paragraph (K) of OAC Rule 3745-21-10.

### **ADDITIONAL SPECIAL TERMS AND CONDITIONS**

#### **I. Operational Restrictions**

##### **A. Thermal Incinerator Operational Restriction**

1. The average combustion temperature within the thermal incinerator controlling VOC emissions from emission units F005-F008, for any 3-hour block of time when the emission units are in operation, shall not be less than 1450 degrees Fahrenheit.

##### **B. Baghouse Pressure Drop Monitoring and Recordkeeping Requirements**

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouses controlling PM and PM<sub>10</sub> emissions from emissions units F001-F008, P901-P903 and P004 while the emission units are in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each baghouse on an hourly basis.

##### **C. Baghouse Operational Restrictions**

1. The pressure drop across each baghouse controlling PM and PM<sub>10</sub> emissions from emission units F001-F008, P901-P903 and P004 shall be maintained within the ranges specified by the control equipment manufacturer while the emission units are in operation.
2. The Control equipment controlling PM and PM<sub>10</sub> emissions from emission units F001-F008, P901-P903 and P004 shall operate whenever the emission units are in operation.

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**D. Visible Emissions**

1. There shall be no visible particulate emissions from any paved roadway or parking area except for a period of time not to exceed one (1) minute during any 60-minute observation period.
2. There shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed 3 minutes during any 60-minute observation period.
3. The permittee shall apply dust suppressants to the unpaved roadways and parking areas to minimize or eliminate, at all times, visible emissions of fugitive dust generated by vehicular traffic. Water shall be used as the dust suppressant. The dust suppressant shall be applied to the unpaved surfaces as conditions warrant to prevent visible emissions of fugitive dust.
  4. Any material carried off of the permittee's property and deposited onto public streets by vehicular traffic or by erosion by water, etc., shall be promptly removed and disposed of properly to minimize or prevent resuspension.
  5. A maximum speed limit of 15 miles per hour shall be posted and enforced on the property.
  6. Open bodied vehicles transporting materials likely to become airborne shall be covered at all times.

**E. Stage I Applicable Emission Limitations/Control Measures**

1. The permittee shall not cause, allow or permit the transfer of gasoline at a gasoline dispensing facility after the date specified in paragraph (C)(19) of OAC rule 3745-21-04 unless the following requirements are met:
  - a. any stationary storage tank which stores gasoline at the dispensing facility is equipped with a submerged fill pipe; and,

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- b. for any transfer of gasoline from a delivery vessel to a stationary storage tank located at the gasoline dispensing facility, the vapors displaced from the stationary storage tank are processed by one of the following systems:
  - i. a vapor balance system which is designed and operated to route at least 90 percent by weight of the VOC in the displaced vapors to the delivery vessel and which is equipped with a means to prevent the discharge of displaced vapors from an unconnected vapor line; or,
  - ii. a vapor control system which is designated and operated to recover at least 90 percent by weight of the VOC in the displaced vapors.
- 2. The permittee shall comply with the following operational restrictions for the Stage I vapor control system:
  - a. the vapor balance system shall be kept in good working order and shall be used at all times during the transfer of gasoline;
  - b. there shall be no leaks in the delivery vessel pressure/vacuum relief valves and hatch covers; and,
  - c. there shall be no leaks in the vapor liquid lines during the transfer of gasoline.

**F. Stage I Leak Repair Requirements**

- 1. The permittee shall repair within 15 days any leak from the vapor balance system or vapor control system which is employed to meet the requirements of paragraph (R) (1) of OAC rule 3745-21-09 when such leak is equal to or greater than 100 percent of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10.

**G. Emission Unit P004 PM and PM<sub>10</sub> Control Efficiency**

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1. The primary baghouse controlling emissions generated by the tumblers associated with emissions unit P004 shall operate with a PM and PM<sub>10</sub> control efficiency of 99 percent.
2. The secondary baghouse controlling emissions generated by the tumblers associated with emissions unit P004 shall operate with a PM and PM<sub>10</sub> control efficiency of 95 percent.
3. The baghouse controlling emissions generated by the grinders associated with emissions unit P004 shall operate with a PM and PM<sub>10</sub> control efficiency of 99.9 percent.

## **II. Recordkeeping Requirements**

### **A. Thermal Incinerator Temperature Monitoring and Recordkeeping Requirements**

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when emission units F005-F008 are in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
2. The permittee shall collect and record the following information for each day:
  - a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions units were in operation, was less than 1400 degrees Fahrenheit; and,
  - b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment,

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when the associated emissions unit was in operation.

**B. Stage I Recordkeeping Requirements**

1. The permittee shall maintain records of the following information:
  - a. the results of any leak checks, including, at a minimum, the following information:
    - i. date of inspection;
    - ii. findings (may indicate no leaks discovered or location, nature, and severity of each leak);
    - iii. leak determination method;
    - iv. corrective action (date each leak repaired and reasons for any repair interval in excess of 15 calendar days); and,
    - v. inspector's name and signature.
2. The permittee shall maintain records which include the following information for the unpaved roadways and parking areas:
  - a. the date dust suppressants were applied to the unpaved surfaces;
  - b. the portions of unpaved surfaces that were treated with dust suppressants;
  - c. the application rate of water and any chemical additives (gallons of each per square yard); and,
  - d. the name of the equipment operator responsible for the application of the dust suppressants.

**III. Reporting Requirements**

**A. Baghouse Pressure Drop Reporting Requirements**

1. The permittee shall submit pressure drop deviation

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(excursion) reports that identify that all periods of time during which the pressure drop across any of the baghouses controlling PM and PM<sub>10</sub> emissions from emissions units F001-F008, P901-P903 and P004 did not comply with the allowable range specified above.

**B. Stage I Reporting Requirements**

1. Any leak from the vapor balance system or vapor control system that is not repaired within 15 days after identification shall be reported to the Director (the Ohio EPA, Central District Office) within 30 days after the repair is completed.

**C. Thermal Incinerator Temperature Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above.

**IV. Compliance Determination**

- A.** Compliance with the Opacity limits established in the permit shall be based upon OAC rule 3745-17-03(B)(1).
- B.** Compliance with the hourly PM and PM<sub>10</sub> emission limits established in this permit for emission units F001-F008, P901-P903 and P004 shall be based upon the emissions testing required by this permit. A compliance determination with the aforementioned emission limits shall include a quantification, using U.S. EPA approved testing methodology, of the uncontrolled mass emission rate for each of the aforementioned emission units.
- C.** Compliance with the hourly OC emission limit established in this permit for emissions unit P903 shall be based upon an emission factor of 21 pounds CO/1 million cubic feet of natural gas burned and the fact that each of the four ovens has eight burners rated at 250,000 BTU's per hour.
- D.** Compliance with the hourly NO<sub>x</sub> emission limit established in this permit for emissions unit P903 shall be based upon an emission factor of 100 pounds NO<sub>x</sub>/1 million cubic feet of

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natural gas burned and the fact that each of the four ovens has eight burners rated at 250,000 BTU's per hour.

- E.** Compliance with the hourly SO<sub>2</sub> emission limit established in this permit for emission units F007 and F008 shall be based upon an emission factor of 0.03 pound SO<sub>2</sub>/ton of iron and a maximum process weight rate of 3 tons of iron per hour.
- F.** Compliance with the hourly NO<sub>x</sub> emission limit established in this permit for emission units F007 and F008 shall be based upon an emission factor of 0.17 pound NO<sub>x</sub>/ton of iron and a maximum process weight rate of 3 tons of iron per hour.
- G.** Compliance with the hourly OC emission limits established in this permit for emissions unit F001 shall be based upon an emission factor of 0.0025 pound OC/ton of iron and a maximum process weight rate of 6 tons of iron per hour.
- H.** Compliance with the hourly OC emission limits established in this permit for emissions unit P903 shall be based upon an emission factor of 8 pounds OC/1 million cubic feet of natural gas burned and the fact that each of the four ovens has eight burners rated at 250,000 BTUs per hour.
- I.** Compliance with the hourly OC emission limits established in this permit for emission units F005-F008 shall be based upon the emission testing required by this permit.
- J.** Compliance with the capture efficiency requirements of this permit shall be based upon engineering calculations contained in the application and consistent with the ACGIH Industrial Ventilation Manual 22nd Edition, 3rd Chapter.
- K.** Compliance with the annual OC emission limits established in this permit for emissions unit G001 shall be based upon a maximum annual throughput of 12,000 gallons of gasoline and 19,200 gallons of diesel and emission factors of 13 pounds OC/1,000 gallon throughput and 0.0027 pound OC/1,000 gallons throughput, respectively.

**V. Miscellaneous Requirements**

**A. Emissions of Organic Compounds from Core and/or Mold Making Process(es)**

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1. The Ohio EPA reserves the right to: (a) update the emissions factors used to estimate Organic Compound (OC) and Volatile Organic Compounds (VOC) emissions and/or (b) redefine the actual and allowable OC/VOC emissions in this permit to install for the core and/or mold making process(es) at the facility.
2. Upon written notification from the Ohio EPA concerning the identification and availability of updated and more representative OC/VOC emission factors, the permittee may be required to reevaluate the estimated OC/VOC emissions from the core and/or mold making operation(s) using the updated emission factors. Should the updated emission factors indicate an increase in estimated OC and/or VOC emissions the permittee shall submit the following (one copy to the Ohio EPA, Central District Office and one copy to the Ohio EPA, Division of Air Pollution Control, Engineering Section):
  - a. Revised OC/VOC Emissions Estimates
    - i. within sixty (60) days of receipt of the written notification from Ohio EPA, the permittee shall submit updated OC/VOC emissions estimates (maximum rate in pounds/hour and tons/year) for each core and/or mold making operation covered under this permit, using the updated emission factors; and,
  - b. Reevaluation of BAT and Compliance with OAC Rule 3745-21-07(G)
    - i. within one hundred-twenty (120) days of submittal of the revised emissions estimates, for each core and/or mold making operation the permittee shall submit:
      - aa. for each core and/or mold making operation permitted herein utilizing photochemically reactive materials, as defined in OAC rule 3745-21-01, an analysis that reevaluates the status of compliance with the requirements of OAC rule 3745-21-07(G); and,

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- ab. a Best Available Technology (BAT) analysis or study, conducted in accordance with Ohio EPA Engineering Guide No. 46, if appropriate, that defines BAT for the operation(s);
- ii. within thirty (30) days of submittal of the rule analysis and the BAT analysis or study, facility representatives shall meet with representatives of the Ohio EPA, DAPC and the Ohio EPA, Central District Office to discuss and resolve any issues related to the submittals; and,
- iii. should the rule analysis and/or BAT analysis or study indicate that at the revised estimated OC/VOC emission rates additional emissions reductions are warranted to meet the requirements of OAC rule 3745-21-07(G) and/or the BAT requirements (OAC rule 3745-31-05), within thirty (30) days after submission of the analysis or study, the permittee shall submit an expeditious schedule for implementation of the additional emissions control for the core and/or mold making operations permitted herein. This schedule shall include the following milestone dates, as applicable:

Milestone

- aa. submit, if required, a PTI modification application implementing the revised BAT determination by
- ab. execute the purchase order(s) for procurement of equipment or components needed to implement additional emissions control by
- ac. initiate installation of equipment and/or components, or initiate implementation of operational changes, to

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Date

implement additional  
OC/VOC emissions control  
by

ad. complete installation of  
equipment and/or  
components, or  
operational changes, to  
implement additional  
OC/VOC emissions control  
by

ae. achieve and demonstrate  
final compliance with OAC  
rule 3745-21-07(G) and/or  
the revised BAT  
determination by

Date

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3. Title V Permit Application

a. Existing Title V Facilities

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For a facility with a Title V application previously submitted, within one hundred-eighty (180) days of the revised BAT determination or submittal of the revised emissions estimates, whichever is later, the permittee shall submit a revised Title V application incorporating the revised emissions estimates and any other information needed to update the application as a result of the revised emissions estimates.

b. "New" Title V Facilities

(Only applicable to facilities which become subject to Title V permitting requirements (OAC Chapter 3745-77) as a result of increased OC/VOC emissions from the use of the updated emission factors)

- i. Within thirty (30) days of submittal of the revised estimated emissions (item no. 1 above), the permittee shall submit a revised "potential to emit" determination for the facility to the Ohio EPA, DAPC, Engineering Section and Ohio EPA, Central District Office.
- ii. Within one year of submittal of the revised emissions estimates (item no. 1), the permittee shall submit a complete Title V permit application, federally enforceable state operating permit application, or permit to install application.

4. Emissions Fee Report (For Facilities Subject to the Title V Regulations)

- a. Within ninety (90) days of submittal of the revised estimated emissions (item no. 1), the permittee shall submit a Fee Emission Report to the Ohio EPA, in accordance with OAC Chapter 3745-78 and Ohio EPA Engineering Guide No. 61, for the most recent completed calendar year in which the facility would be classified as a "major" under the Ohio Title V regulations.

**B. Compliance Plans and Schedules**

1. The permittee shall comply with the following compliance plans and schedules:

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	<u>Milestone Date</u>
a. <u>For Emission Units F005-F008</u>	
Evaluation of quotes for OC controls	3/5/98
Management approval and appropriation of funds for OC controls	3/26/98
Award contract/place order for OC controls	3/31/98
Complete construction and installation of OC control equipment	8/1/98
Achieve final compliance	10/1/98
b. <u>For Emissions Unit G001</u>	
Evaluation of quotes for controls	3/5/98

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	Management Approval and appropriation of funds for controls	3/26/98
	Award contract/place order for controls	3/31/98
	Complete construction and installation of Stage I vapor control equipment	8/1/98
c.	For Emission <u>Units F001-F008</u>	10/1/98
	Complete construction and installation of PM and PM <sub>10</sub> control equipment	7/1/98
d.	For Emission Units P004, <u>P901-P903</u>	10/1/98
	Complete construction	

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	8/1/98
and installation of PM and PM <sub>10</sub> control equipment	10/1/98
Achieve final compliance	