OhioEPA

State of Ohio Environmental Protection Agency

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CANTON CITY HEALTH DEPT.
AIR POLLUTION DIVISION

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: FINAL PERMIT TO INSTALL
STARK COUNTY
Application No: 15-01591
Fac ID: 1576050694

DATE: 8/30/2005

CERTIFIED MAIL

	TOXIC REVIEW
Y	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
subpart AAa	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Republic Engineered Products Inc.
Pat Monnot
2633 Eighth St NW
Canton, OH 44701

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
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA Canton LAA

OhioEPA

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 8/30/2005**
Terms and Conditions	**Effective Date: 8/30/2005**

FINAL PERMIT TO INSTALL 15-01591

Application Number: 15-01591

Facility ID: 1576050694

Permit Fee: **$6600**

Name of Facility: Republic Engineered Products Inc.

Person to Contact: Pat Monnot

Address: 2633 Eighth St NW
Canton, OH 44701

Location of proposed air contaminant source(s) [emissions unit(s)]:
2633 Eighth St NE
Canton, Ohio

Description of proposed emissions unit(s):
Chapter 31 modification of No. 4 melt shop furnaces and addition of two new ladle preheaters and a new LMF designated No. 2 LMF.

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

Joseph P. Koncelik

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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.8 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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 re-issuance, or modification

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

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 its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. 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 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 ninety (90) 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.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

B. State Only Enforceable Permit-To-Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

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. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or 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)

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

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

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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., postmarked), 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
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS
(for informational purposes only)

Pollutant	Tons Per Year
PM	119.7
PM-10(filterable)	90.4
PM-10(total)	320.4
Pb	0.12
SO2	193.0
NOx	173.1
VOC	58.1
CO	1199.2

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

As a result of the installation of emission units P160 thru P162 and the major modifications to EAF No. 7(emission unit P905) which results in an increase in steel production from 85 tons per hour to 183.3 tons per hour of steel at the REP's Canton Ohio Eighth Street facility, the permittee shall:

1. Obtain 123.6 tpy NOx, 43.0 tpy VOC, and 267.3 tpy PM_{10} (as a surrogate for $PM_{2.5}$)of emission offsets in accordance with the requirements specified in OAC rule 3745-31-21(A), OAC rule 3745-31-22(A)(3), and OAC rule 3745-31-24 thru OAC rule 3745-31-27 in order to offset the resulting significant net increase in VOC and NOx emissions from the MSF project. The offset ratio shall be greater than 1.0 to 1.0 in accordance with OAC rule 3745-31-26(A) since the non-attainment area is designated as Basic.

   a. Off setting of the net excess emissions generated by this project shall be the result of the permanent shutdown of VOC and/or NOx sources or reduction in VOC and/or NOx emissions as specified in the table below:

A	B	C	D	E	F	G
Company Name, Address, Contact Person & Phone # Providing Offsets	**Emissions Unit ID No. & Description**	**TPY NOx Offset Credit**	**TPY VOC Offset Credit**	**TPY of NOx Offset Emissions Remaining**	**TPY of VOC Offset Emissions Remaining**	**Reason for Offset Emission Credits**
Republic Engineered Products, Inc. 2633 Eighth St., NE, Canton, OH 44704 Patrick Monnot 330.438.5418	*Melt Shop Flexibility Project*	*+123.6*	*+43.0*	*123.6*	*43.0*	*Credits Needed*
	(P008-P011, P013-P016) Blooming Mill Soaking Pits	-50.84	-1.64	72.76	41.36	Permanent shutdown 8/27/99; 1997-98 avg. emissions from FER
	(F007) Old Vertical Caster	-5.60	—	67.16	41.36	Permanent shutdown 12/95; 1994-95 avg. emissions from FER

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A	B	C	D	E	F	G
Company Name, Address, Contact Person & Phone # Providing Offsets	**Emissions Unit ID No. & Description**	**TPY NOx Offset Credit**	**TPY VOC Offset Credit**	**TPY of NOx Offset Emissions Remaining**	**TPY of VOC Offset Emissions Remaining**	**Reason for Offset Emission Credits**
Republic Engineered Products, Inc. 401 Rose Avenue Massillon, OH 44647 Ken Cleaver 330.837.7111	(P006) Coil Selas Furnace	-0.70	-0.03	66.46	41.33	Permanent shutdown; last operated 1995; 1993 & 1995 avg. emissions from FER (1994 cannot be located)
	(P013) Plant 2 Coil Pickling	-2.26	—	64.20	41.33	Permanent shutdown; last operated 1995; 1993 & 1995 avg. emissions from FER (1994 cannot be located)
	(P014) Plant 2 Bar Pickling	-0.50	—	59.54	42.47	Permanent shutdown; last operated 1998/99; 1996-97 avg. emissions from FER
Republic Engineered Products, Inc. 1807 East 28th St., Lorain, OH 44055 Jay Lawniczak 440.277.3088	(P075) Slow Cool Furnace No. 1N	-2.37	-0.02	63.7	41.33	Permanent shutdown; last operated 11/02; 2000-01 avg. emissions from FER
	(P076) Slow Cool Furnace No. 2S	-2.67	-0.02	58.66	41.29	Permanent shutdown; last operated 11/02; 2000-01 avg. emissions from FER
	(P077) Slow Cool Furnace No. 6	-0.36	-0.01	58.30	41.28	Permanent shutdown; last operated 8/02; 2000-01 avg. emissions from FER

A	B	C	D	E	F	G
Company Name, Address, Contact Person & Phone # Providing Offsets	**Emissions Unit ID No. & Description**	**TPY NOx Offset Credit**	**TPY VOC Offset Credit**	**TPY of NOx Offset Emissions Remaining**	**TPY of VOC Offset Emissions Remaining**	**Reason for Offset Emission Credits**
	(P014-P016) Rust Pit Nos. 9, 10, 11	-5.1	-0.21	53.20	41.07	Permanent shutdown; last operated 1995; actual emissions used from 1995 FER (1994 emissions data not available)
	(P006-P013) AMCO Pit Nos. 1-8	-102.85	-0.45	(49.65 excess)	40.62	Permanent shutdown; last operated 1996; 1995-96 avg. emissions from FER (1994 emissions data not available)
	(P017-P018) Swindell Pit Nos. 12/13, 14/15	-118.52	-0.41	(168.17 excess)	40.21	Permanent shutdown; last operated 1997; 1995-96 avg. emissions from FER
World Kitchen 359 State Avenue NW Massillon, OH 44647 Lauren Kisling Canton Fitzgerald 212.829.5460	See World Kitchens Letter to Canton LAA dated 09/02/04	—	-70.0	(168.17 excess	(29.79 excess)	Permanent shutdown 9/04; 2002-03 avg. emissions per CAPC and World Kitchen.

b. Stark County is in non-attainment for $PM_{2.5}$ effective April 5, 2005. Even though the regulations implementing the Fine Particulate NAAQS($PM_{2.5}$) have not been finalized yet, US EPA has provided guidance specifying that for the purpose of obtaining offsets for $PM_{2.5}$, Ohio EPA must use PM_{10} emissions as a surrogate for $PM_{2.5}$. Therefore, pursuant to this guidance, this project must also satisfy the offset requirements set forth in OAC rule 3745-31-26 for PM_{10}. The offset ratio will be greater than 1.0 to 1.0 and must be in place by the start-up(identified, acquired and federally enforceable) date for

the project. Off setting of the net excess PM_{10} emissions generated by this project shall be the result of the permanent shutdown of PM_{10} sources or reduction in PM_{10} emissions as specified in the table below. The remaining offset PM_{10} emissions shall be secured by the initial operating date of the modified sources.

A	B	C	E	G
Company Name, Address, Contact Person & Phone # Providing Offsets	**Emissions Unit ID No. & Description**	**TPY PM_{10} Offset Credit**	**TPY of PM_{10} Offset Emissions Remaining**	**Reason for Offset Emission Credits**
Republic Engineered Products, Inc. 2633 Eighth St., NE, Canton, OH 44704 *Patrick Monnot 330.438.5418*	*Melt Shop Flexibility Project*	*+267.3*	*267.3*	*Credits Needed*
	(P008 - P011, P013 - P016) Blooming Mill Soaking Pits	-4.0	263.3	Permanent shutdown; last operated 8/27/99; emissions based on actual fuel usage for 1996 - 1997 multiplied by emissions factor of 7.6 lb/mmcf for total PM(filterable plus condensible)(1998 rev. AP-42 for natural gas burning); production ramp-down began 1997 - 1998, therefore 1998 fuel usage not considered representative.
	(F007) Old Vertical Caster	-0.99	262.31	Permanent shutdown 12/95; emissions based on actual fuel usage for 1994 - 1995 at tundish preheaters and dryers multiplied by emission factor of 7.6 lb/mmcf, plus FER data for torch cutting component.
Republic Engineered Products, Inc. 401 Rose Avenue Massillon, OH 44647 Ken Cleaver 330.837.7111	(P006) Coil Selas Furnace	-0.13	262.18	Permanent shutdown; last operated 1995; 1993 & 1995 avg. emissions from FER (1994 cannot be located)
	(P013) Plant 2 Coil Pickling	-0.06	262.12	Permanent shutdown; last operated 1995; 1993 & 1995 avg. emissions from FER (1994 cannot be located)
	(P014) Plant 2 Bar Pickling	-0.56	261.56	Permanent shutdown; last operated 1998/99; 1996-97 avg.emissions from FER

A	B	C	E	G
Company Name, Address, Contact Person & Phone # Providing Offsets	**Emissions Unit ID No. & Description**	**TPY PM_{10} Offset Credit**	**TPY of PM_{10} Offset Emissions Remaining**	**Reason for Offset Emission Credits**
	(P016) waterbury Shot Blaster	-11.13	250.43	Permanent shutdown; last operated 2000/01; 1999-2000 avg. emissions from FER.
	(P010) # 1 Schumag Rotoblast	-3.02	247.34	Permanent shutdown: last operated 1997; 1996 emissions from FER(blasting equipment emissions for 1995 and earlier were estimated using a different methodology that proved to be understating emissions by an order of magnitude
Republic Engineered Products Inc. 1807 East 28th St. Lorain, Ohio 44055 Jay Lawniczak 440.277.3088	(P062) No. 6 Grinder	-1.63	245.71	Permanent shutdown; last operated 2003/04 (to be removed from TV permit); emissions based on emissions for 2001 - 2002 as reported on FER as PM_{10}
	(P078) No. 7 grinder	-1.38	244.33	Permanent shutdown; last operated 2001 (to be removed from TV permit); emissions based on emissions for1999 - 2000 as reported on FER as PM_{10}
	(P075) Slow Cool furnace No. 1-N	-0.10	244.23	Permanent shutdown; last operated 2002; emissions based on actual fuel usage for 2000 - 2001 as reported in FER as multiplied by emissions factor of 7.6 lb/mmcf(1998 AP-42)
	(P076) Slow Cool furnace No. 2-S	-0.09	244.14	Permanent shutdown; last operated 2002 but last normal operations in 1997(idled 1998); emissions based on actual fuel usage for 1996 - 1997 as reported in FER as reported in FER multiplied by emissions factor of 7.6 lb/mmcf(1998 AP-42)

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A	B	C	E	G
Company Name, Address, Contact Person & Phone # Providing Offsets	**Emissions Unit ID No. & Description**	**TPY PM_{10} Offset Credit**	**TPY of PM_{10} Offset Emissions Remaining**	**Reason for Offset Emission Credits**
	(P077) Slow Cool furnace No. 6	-0.03	244.11	Permanent shutdown; last operated 2002 but last normal operations was in 1997(idled 1998 - 2000); emissions based on actual fuel usage for 1996 - 1997 as reported in FER as multiplied by emissions factor of 7.6 lb/mmcf(1998 AP-42)
	(P069) Coke screening station	-1.57	242.54	Permanent shutdown; last operated 1998; emissions based on 1997 - 1998 avg. as reported in FER
	(P014-P016) Rust Pit Nos. 9, 10, and 11	-0.12	242.42	Permanent Shutdown; last operated 1996; emissions based on actual fuel usage for 1995 multiplied by emissions factor of 7.6 lb/mmcf(AP-42 for 1998 for natural gas buring) (1994 emission data not available)
	(P006 - P013) AMCO Pit Nos. 1-8	-3.30	239.12	Permanent Shutdown; last operated 1996; emissions based on actual fuel usage for 1995 multiplied by emissions factor of 7.6 lb/mmcf(AP-42 for 1998 for natural gas buring) (1994 emission data not available but believed to be similar to 1995 levels); 1996 not representative (throughout half of preceding years)
	(P017-P018) Swindell Pit Nos. 12, 13, 14, and 15	-3.01	236.11	Permanent Shutdown; last operated 1997; 1995 and 1996 avg. emissions based on actual fuel usage for 1995 and 1996 multiplied by emissions factor of 7.6 lb/mmcf(AP-42 for 1998 for natural gas buring) (1994 emission data not available)1996 not representative (throughout half of preceding years)

A	B	C	E	G
Company Name, Address, Contact Person & Phone # Providing Offsets	**Emissions Unit ID No. & Description**	**TPY PM_{10} Offset Credit**	**TPY of PM_{10} Offset Emissions Remaining**	**Reason for Offset Emission Credits**
	(F009) teeming Unleaded	-16.04	220.07	Permanant Shutdown; last operated in 1996; emissions based on 1995 FER(1994 emissions data not available but believed to be similar to 1995 levels); 1996 not representative (throughout half of preceding years)
	(P023) Teeming Leaded	-10.11	209.96	Permanant Shutdown; last operated in 1996; emissions based on 1995 FER(1994 emissions data not available but believed to be similar to 1995 levels); 1996 not representative (throughout half of preceding years)
	(P059) CAB Station	-8.72	201.24	Permanant Shutdown; last operated in 1997; emissions based on 1995- 1996 avg.as stated in FER for uncontrolled plus baghouse emissions at BOP CAB (exluding trim station emissions).
Other External sources	TBD	201.24	0	

2. In accordance with OAC rule 3745-31-27(A), the permittee shall have identified, acquired, and made federally enforceable **all** offsets by the start-up date. The permittee shall notify the Canton LAA, in writing, of the official start-up date for emission units being modified and installed in accordance with the terms and conditions of this permit to install. As part of this notification, the permittee shall provide written verification, with documentation acceptable to the Canton LAA and OEPA, that those emission units providing emission credits have been either permanently shutdown or have reduced emissions by modifying existing permits or obtaining new permits which shall contain federally enforceable emission limitations and restrictions. The change in the federally enforceable emission limitations shall be at least equal to an amount of credits being claimed for that emission unit(s).

3. Provide written certification(s) that all existing major stationary sources owned or operated by the applicant (or any entity controlling, controlled by, or under common control with the applicant) in Ohio are in compliance with all applicable emission limitations and standards under the Clean Air Act(or are in compliance with an expeditious schedule which is federally enforceable or contained in a court decree) in accordance with OAC rule 3745-31-22(A)(2). The certification shall be signed by a responsible official. For the purpose of this permit, a "Responsible official" is the president, secretary, treasurer, or vice-president of each corporation owned or operated by the applicant (or any entity controlling, controlled by, or under common control with the applicant) that is in charge of the principal business function for that corporation, or any other person who performs similar policy or decision-making functions for each corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities.

4. In accordance with OAC rule 3745-31-22-(A)(4), the emission offsets discussed above must provide a positive net air quality benefit in the affected area pursuant to rule 3745-31-25 of the Administrative Code. The permittee shall demonstrate compliance with OAC rule 3745-31-22-(A)(4) by complying with the terms and conditions in OAC rule 3745-31-22-(A)(1) thru (A)(3) as specified in the terms and conditions of this PTI.

5. Upon the effective date of this PTI and, with respect to excess VOC emissions, the transfer of VOC offsets form World Kitchen to the permittee, the excess offset emissions shown in the table set forth in Section A.1.a(29.97 tpy VOC and 168.17 tpy NOx) are "banked" by the permittee for future use/sale as authorized by OAC rule 3745-31-24(D).

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P160 - No. 2 Ladle Metallurgy Facility(LMF); Emissions from this emissions unit are controlled by the No. 4 Melt Shop bag house and evacuation system.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 thru 20 and 3745-31-21 thru 27.
	OAC rule 3745-31-21 thru 27	2.9 lbs NOx/hour 10.9 tons NOx/year 0.8 lbs VOC/hour 3.0 tons VOC/year See section A.I.2.b The filterable PM_{10} emissions rate from the control device serving this emissions unit shall not exceed 28.7 lbs PM_{10} per hour and 125.6 tons PM-10 per year The filterable PM10 grain loading as measured at the discharge of the No. 4 baghouse servicing this emissions unit shall not exceed 0.0014 grains/dscf. The total $PM_{10}/PM_{2.5}$ emissions rate, which includes filterable and condensible PM_{10} emissions, from the control device serving this emissions unit shall not exceed 100.6 lbs $PM_{10}/PM_{2.5}$ per hour and 440.8 tons $PM_{10}/PM_{2.5}$ per year

	The total $PM_{10}/PM_{2.5}$ grain loading, which includes filterable and condensible PM_{10}, as measured at the discharge of the No. 4 baghouse servicing this emissions unit shall not exceed 0.0048 grains/dscf. Also see section A.I.2.a.
OAC rule 3745-31-10 thru 20	The PM emissions rate from the control device serving this emissions unit shall not exceed 37.7 lbs PM per hour and 165.3 tons PM per year. The filterable PM grain loading as measured at the discharge of the No. 4 baghouse servicing this emissions unit shall not exceed 0.0018 grains/dscf. Also see section A.I.2.a. 39.6 lbs SO2/hour 148.5 tons SO2/year 4.2 lbs CO/hour 15.8 tons CO/year Visible emissions from this emission unit shall not exceed 5 % opacity as a six-minute average measured from the No. 4 Melt Shop Baghouse when the LMF is operating ; See section A.I.2.c
OAC rule 3745-17-08	See section A.I.2.d
OAC rule 3745-17-11	See section A.I.2.d
OAC rule 3745-17-07	See section A.I.2.d
OAC rule 3745-18-06	See section A.I.2.d

2. Additional Terms and Conditions

a. The PM/PM_{10} emissions from this emissions unit shall be collected and controlled by the No. 4 Melt Shop evacuation system and baghouse. This evacuation system is used to control PM/PM_{10} emissions from emission units P907, P905, P106, P160, F009, and P068.

i. The visible emissions of fugitive dust from roof monitors(vents) and openings of the building housing the No. 4 Melt Shop, including doors, windows, etc., shall not exceed an average of six(6) percent opacity as a six-minute average, unless otherwise specified as in 40 CFR 60.11, exempting periods of startup, shutdown, and malfunction.

ii. Filterable PM stack emissions from the baghouse shall not exceed 0.0018 grains/dscf and the total $PM_{10}/PM_{2.5}$ stack emissions(filterable and condensible) shall not exceed 0.0048 grains/dscf unless otherwise specified as in as in 40 CFR 60.11, exempting periods of startup, shutdown, and malfunction.

iii. The baghouse shall have a minimum control efficiency of 99 % for $PM_{10}/PM_{2.5}$ emissions.

iv. In adherence with U.S. EPA's interim guidance regarding new source review for sources of $PM_{2.5}$ emissions, projected PM_{10} emissions are to be used as a surrogate for $PM_{2.5}$ emissions. Therefore, compliance with PM_{10} emission will suffice for compliance with $PM_{2.5}$.

v. The LMF capture system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the 6 % opacity emission limitation for fugitive emissions from the melt shop.

b. The permittee shall employ the Lowest Achievable Emission Rate(LAER) specified in section A.I.1 and as defined in OAC rule 37445-31-01(OO) for NOx, $PM_{10}/PM_{2.5}$ and VOC. LAER for this emission unit for VOC shall consist of maintaining good operating practices and compliance with the emission limitation specified in section A.I.1 for VOC based on an emission factor of 0.0036 lbs VOC/ton steel produced. LAER for NOx shall consist of maintaining good operating practices and complying with the emission limitation specified in section A.I.1 for NOx based on 0.0132 lbs NOx per ton steel produced . The lb/hr and tons/yr. emission limitations in section A.I.1 are based on these emission factors while at maximum production. LAER for this emissions unit for PM10/PM2.5 is the combination of dedicated primary particulate capture hooding and the melt shop building evacuation system and positive-pressure baghouse with an outlet grain loading as specified in section A.I.1.

c. The permittee shall employ the Best Available Control Technology(BACT) as defined in OAC rule 3745-31-01(M) for PM/PM_{10}, Sulfur dioxides, and CO. BAT emission limitations are as stringent as BACT. BACT for this emission unit has been demonstrated to be the following:

i. For PM/PM-10, the use of the DEC capture and bag house control system servicing No. 4 melt shop(fourth hole evacuation system) and complying with a mass emission limitation and grain loading limitations as specified in section A.I.1.

ii. For Sulfur dioxide, maintaining compliance with the emission limitation in section A.I.1 which is based on an emission factor of 0.18 lbs SO2 per ton of steel produced.

iii. For Carbon Monoxide, maintaining compliance with the emission limitation in section A.I.1 which is based on an emission factor of 0.019 lbs CO/ton of steel produced.

d. The emission limit specified by this rule is less stringent than the emission limit established pursuant to OAC rules 3745-31-10 thru 20.

II. Operational Restrictions

1. The pressure drop across the bag house shall be maintained within the range of 4 to 14 inches of water, while the emission unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure drop differential range as the result of bag replacements.

   The permittee shall establish the pressure drop range for bag house operation that will ensure ongoing compliance during the stack test conducted for this emission unit as specified in section A.V.2. The permittee may modify the pressure drop range based on data collected during the operation of the baghouse and contributing emission units with prior approval of the Canton LAA.

2. The permittee shall utilize good operating practices and adequately maintain this emission unit in order to maintain compliance with the terms and conditions of this permit.

3. The permittee shall produce no more than 1,650,000 tons of steel per year in this emission unit.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall perform weekly checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible particulate emissions from any non-stack egress points from the building housing this emissions

unit(e.g., windows, doors, roof monitors, etc.). This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building(regardless of whether this specific emission unit is in operation). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log.

a. the color of the emissions;
b. whether the emissions are representative of the normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible fugitive particulate emission incident;
e. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions; and

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and O&M manuals and consistent with good engineering practices. The permittee shall record the pressure drop across the bag house on a weekly basis.

3. The permittee shall maintain records of the total tons of steel produced annually from this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that:

   a. identify all days during which any visible fugitive particulate emissions were observed form any non-stack egress point(i.e., windows, doors, roof monitors, etc.) serving this emissions unit; and

   b. describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

2. The permittee shall submit deviation(excursion) reports that identify all periods of time when the emission unit is operating and the recorded pressure drop across the bag house was not within the allowable range specified in section A.I.1.

V. Testing Requirements

1. Compliance with the emission limitations of this permit shall be demonstrated by using the following methods and procedure:

   a. Emission limitations:
   Visible fugitive emissions from the building housing this emissions unit shall not exceed an average of six(6) percent opacity as a six (6)-minute average, unless otherwise specified.

   Applicable compliance method:
   If required, visible emissions shall be determined using 40 CFR, Appendix A, US EPA
   Method 9

   b. Emission limitation:
   The PM emissions rate from the control device serving this emissions unit shall not exceed 37.7 lbs PM per hour and 165.3 tons PM per year.

   The filterable PM_{10} emissions rate from the control device serving this emissions unit
   shall not exceed 28.7 lbs PM_{10} per hour and 125.6 tons PM-10 per year

   The total $PM_{10}/PM_{2.5}$ emissions rate, which includes filterable and condensible PM_{10} emissions, from the control device serving this emissions unit shall not exceed 100.6 lbs PM_{10} per hour and 440.8 tons PM_{10} per year

   The filterable PM grain loading as measured at the discharge of the No. 4 baghouse servicing this emissions unit shall not exceed 0.0018 grains/dscf.

   The filterable PM10 grain loading as measured at the discharge of the No. 4 baghouse servicing this emissions unit shall not exceed 0.0014 grains/dscf.

   The total PM_{10} grain loading, which includes filterable and condensible PM_{10}, as measured at the discharge of the No. 4 baghouse servicing this emissions unit shall not exceed 0.0048 grains/dscf.

   The baghouse shall have a minimum control efficiency of 99 %.

   Applicable compliance method:

In adherence with U.S. EPA's interim guidance regarding new source review for sources of $PM_{2.5}$ emissions, projected PM_{10} emissions are to be used as a surrogate for $PM_{2.5}$ emissions. Therefore, compliance with PM_{10} emission will suffice for compliance with $PM_{2.5}$

The permittee shall demonstrate compliance with the hourly PM_{10} mass emission rates and the baghouse control efficiency by the use of US EPA Methods 1 - 4 and 5, Appendix A, 40 CFR Part 60 or an approved alternative. The permittee shall demonstrate compliance with the total and filterable PM_{10} emission limitations by the use of US EPA Methods 201 or 201A, Appendix A, 40 CFR Part 60 or an approved alternative and the use of US EPA Methods 202(for condensibles), Appendix A, 40 CFR Part 60 or an approved alternative.
The annual emission rate of PM and PM-10 are calculated by multiplying the lbs pollutant/hr. by 8760 and dividing the result by 2000.

c. Emission limitation:
Visible emissions from the baghouse stack shall not exceed 5 % as a six(6) minute average when this emission unit is operating by itself.

Applicable compliance method:
If required, visible emissions shall be determined using 40 CFR Part 60, Appendix A, US EPA, Method 9.

d. <u>Emission Limitation</u>

39.6 lbs/hour of sulfur dioxide
2.9 lbs/hour of NOx
4.2 lbs/hour of CO
0.8 lbs/hour of VOC

<u>Applicable Compliance Method</u>

If required, the permittee shall demonstrate compliance by the use the following US EPA Methods(found in 40 CFR Part 60, Appendix A) or an approved alternative:

Method 6 for SO2
Method 10 for CO
Method 25 or 25A for VOC
Method 7 for NOx

e. Emissions Limitations:

148.5 tpy of SO2
10.5 tpy of NOx
15.8 tpy of CO
3.0 tpy of VOC

Applicable Compliance Method:

The permittee shall demonstrate compliance with these tpy emission limitations by multiplying the total tons of steel produced per year by the following respective emission factors:

SO2: 0.18 lbs SO2/ton steel produced
CO: 0.019 lbs CO/ton steel produced
NOx: 0.0132 lbs NOx/ton steel produced
VOC: 0.0036 lbs VOC/ton steel produced

2. 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 in accordance with the schedule of testing established in the company's Title V permit;

   b. the test(s) shall be conducted while the emissions units P907, P905, P106, P160, and F009 are operating at or near its maximum capacity unless otherwise specified and approved by the Canton local air agency.

   c. Testing to demonstrate compliance with the PM/PM-10 mass emission and grain loading limitations shall be conducted at the bag house discharge utilizing US EPA Method 5(or an approved alternative), 40 CFR Part 60, Appendix A. Testing of the inlet PM/PM-10 loading shall be conducted to demonstrate compliance with the baghouse control efficiency limitation based upon filterable PM/PM10 only. The permittee shall demonstrate compliance with the mass emission limitations for NOx, VOC, SO2, and CO utilizing the following methods and shall be conducted at a location in the capture ductwork system for this emission unit which best represents these emissions from P160:

      i. For NOx: Method 7 or an acceptable USEPA approved modification.
      ii. For VOC: Method 25 or an acceptable USEPA approved modification.
      iii. For Sulfur dioxide: Method 6 or an acceptable USEPA approved modification.
      iv. For Carbon monoxide: Method 10 or an acceptable USEPA approved modification.

   d. During the test method 9 visible emissions observations shall be conducted on the stack servicing this emissions unit. These readings shall be used to determine compliance with the opacity limitation in section A.2;

   e. the pressure drop across the baghouse, in inches of water, shall be recorded during the emissions test;

f. the permittee shall determine compliance with the particulate matter(PM) standards as follows:

   i. Method 5D shall be used for positive-pressure fabric filters to determine the particulate matter concentration and volumetric flow rate of the effluent gas. Because this unit is controlled by a baghouse also used to control EAF's, the sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 DSCF) and, when a single EAF is sampled, the sampling time shall include an integral number of heats;
   ii. Method 9 and the procedures of 40 CFR Part 60.11 shall be used to determine opacity;
   iii. the test runs shall be conducted concurrently, unless inclement weather interferes;

g. the permittee shall determine compliance with the filterable and condensible PM_{10} emission rates and grain loadings by the use of US EPA Methods 201/201A(filterable PM_{10}) and Method 202(condensible PM_{10}), Appendix A, 40 CFR Part 60.

h. during performance tests, the permittee shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector unless the amount of dilution is separately determined and considered in the determination of emissions.

i. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton 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 Canton Local Air Agency's refusal to accept the results of the emission test(s).

   Personnel from the Canton 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.

   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 Canton Local Air Agency within 30 days following completion of the test(s);

F. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P160 - No. 2 Ladle Metallurgy Facility(LMF)	None	None

2. **Additional Terms and Conditions**

   2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P161 - Ladle Dryer/Preheater No. 3 is fired with natural gas and has a maximum rated heat input of 14.5 mmBtu/hr.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 thru 20 and 3745-31-21 thru 27.
	OAC rules 3745-31-21 thru 27	1.45 lbs NOx/hr. 6.4 tons NOx/yr. 0.08 lbs VOC/hr. 0.35 tons VOC/yr. 0.11 lbs $PM/PM_{10}/PM_{2.5}$ per hour. 0.48 tons $PM/PM_{10}/PM_{2.5}$ per year. See A.2.d and A.2.e.
	OAC rules 3745-31-10 thru 20	1.22 lbs CO/hr. 5.33 tons CO/yr 0.01 lbs SO2/hr. 0.04 tons SO2/yr.
	OAC rule 3745-17-11 OAC rule 3745-17-07 OAC rule 3745-18-06	See Section A.2.c See Section A.2.c See Section A.2.c

2. Additional Terms and Conditions

2.a The use of low NOx burners on this emission unit with a rating of 0.10 lb NOx / mmBtu or better constitutes BAT and LAER for this installation. The permittee shall use a burner which is designed to meet or exceed the NOx rating specified above.

2.b BACT for CO, and SO2 and LAER for VOC emissions consists of employing best operational and engineering practices to minimize emissions such as maintaining good combustion practices during operation and burning only of natural gas as fuel with a sulfur content of less than 0.6 percent by weight.

2.c The emission limit specified by this rule is less stringent than the emission limit established pursuant to OAC rules 3745-31-10 thru 20.

2.d In adherence with U.S. EPA's interim guidance regarding new source review for sources of $PM_{2.5}$ emissions, projected PM_{10} emissions are to be used as a surrogate for $PM_{2.5}$ emissions. Therefore, compliance with PM_{10} emission will suffice for compliance with $PM_{2.5}$.

2.e BACT/LAER for $PM/PM_{10}/PM_{2.5}$ emissions is proper natural gas burner design and good combustion practices and the use of no add-on air pollution equipment directly associated with the source.

II. Operational Restrictions

1. This emissions unit shall burn only natural gas.

2. This emission unit shall be equipped with low NOx burners. The permittee shall install, operate and maintain the burners in accordance with manufacturer's recommendations, O&M manuals, instructions, and good engineering practices

III. Monitoring and/or Record keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation(excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

V. Testing Requirements

1. Compliance with the emissions limitations of this permit shall be demonstrated in accordance with the following methods and procedures:

   a. Emission limitation:
   0.11 lbs $PM/PM_{10}/PM_{2.5}$ per hour.
   0.48 tons $PM/PM_{10}/PM_{2.5}$ per year.

Applicable compliance method:

In adherence with U.S. EPA's interim guidance regarding new source review for sources of $PM_{2.5}$ emissions, projected PM_{10} emissions are to be used as a surrogate for $PM_{2.5}$ emissions. Therefore, compliance with PM_{10} emission will suffice for compliance with $PM_{2.5}$.

The hourly and annual emissions limitations(PTE) were developed as follows:

The Ladle preheaters are rated at 14.5 mmbtu/hour each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = (14.5 mmBtu/hr. x 1/(1000 Btu/scf) x 7.6 lb PM_{10}/mmscf)

Annual mass emission rate limitation = 0.11 lbs PM_{10} x 8760/2000 = 0.48 tpy

b. Emission limitation:
1.45 lbs NOx/hr.
6.35 tons NOx/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 14.5 mmBtu/hr. each. The emission factor(0.1 lbs NOx/mmBtu) used was provided by the manufacturer for low NOx burners to be used in the preheaters. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 14.5 mmBtu/hr. x 0.10 lbs NOx/mmBtu of natural gas

Annual mass emission rate limitation = 14.5 mmBtu/hr x 0.10 lbs NOx/mmBtu of natural gas x 8760/2000

c. Emission limitation:
1.22 lbs CO /hr.
5.33 tons CO/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 14.5 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 14.5 mmBtu/hr. x 1/(1000 Btu/scf) x 84 lbs CO/mmscf

Annual mass emission rate limitation = 14.5 mmBtu/hr x 1/(1000 Btu/scf) x 84 lbs CO/mmscf x 8760/2000

d. Emission limitation:
0.01 lbs SO2 /hr.
0.04 tons SO2/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 14.5 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 14.5 mmBtu/hr. x 1/(1000 Btu/scf) x 0.6 lbs SO2/mmscf

Annual mass emission rate limitation = 14.5 mmBtu/hr x 1/(1000 Btu/scf) x 0.6 lbs SO2/mmscf x 8760/2000

e. Emission limitation:
0.08 lbs VOC /hr.
0.35 tons VOC/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 14.5 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 14.5 mmBtu/hr. x 1/(1000 Btu/scf) x 5.5 lbs VOC/mmscf

Annual mass emission rate limitation = 14.5 mmBtu/hr x 1/(1000 Btu/scf) x 5.5 lbs VOC/mmscf x 8760/2000

F. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P161 - Ladle Dryer/Preheater No. 3 is fired with natural gas and has a maximum rated heat input of 14.6 mmBtu/hr.	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

'art III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

. 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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P162 - Ladle Dryer/Preheater No. 4 is fired with natural gas and has a maximum rated heat input of 14.5 mmBtu/hr.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 thru 20 and 3745-31-21 thru 27.
	OAC rules 3745-31-21 thru 27	1.45 lbs NOx/hr. 6.4 tons NOx/yr. 0.08 lbs VOC/hr. 0.35 tons VOC/yr. 0.11 lbs $PM/PM_{10}/PM_{2.5}$ per hour. 0.48 tons $PM/PM_{10}/PM_{2.5}$ per year. See A.2.d and A.2.e.
	OAC rules 3745-31-10 thru 20	1.22 lbs CO/hr. 5.33 tons CO/yr 0.01 lbs SO2/hr. 0.04 tons SO2/yr.
	OAC rule 3745-17-11 OAC rule 3745-17-07 OAC rule 3745-18-06	See Section A.2.c See Section A.2.c See Section A.2.c

2. Additional Terms and Conditions

2.a The use of low NOx burners on this emission unit with a rating of 0.10 lb NOx / mmBtu or better constitutes BAT and LAER for this installation. The permittee shall use a burner which is designed to meet or exceed the NOx rating specified above.

2.b BACT for CO and SO2 and LAER for VOC emissions consists of employing best operational and engineering practices to minimize emissions such as maintaining good combustion practices during operation and the use of natural gas as fuel.

2.c The emission limit specified by this rule is less stringent than the emission limit established pursuant to OAC rules 3745-31-10 thru 20.

2.d The permittee shall also employ LAER for PM-2.5. Regulations implementing the Fine Particulate NAAQS($PM_{2.5}$) have not been finalized yet. In adherence with U.S. EPA's interim guidance regarding new source review for sources of $PM_{2.5}$ emissions, projected PM_{10} emissions are to be used as a surrogate for $PM_{2.5}$ emissions. US EPA has provided guidance which specifies that permittees must use the PM10 regulatory program as a surrogate for $PM_{2.5}$. Therefore, pursuant to this guidance, this project must also satisfy the LAER requirements for PM_{10}.

2.e BACT/LAER for PM/PM_{10}/$PM_{2.5}$ emissions is proper natural gas burner design and good combustion practices and the use of no add-on air pollution equipment directly associated with the source.

II. Operational Restrictions

1. This emissions unit shall burn only natural gas.

2. This emission unit shall be equipped with low NOx burners. The permittee shall install, operate and maintain the burners in accordance with manufacturer's recommendations, O&M manuals, instructions, and good engineering practices

III. Monitoring and/or Record keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation(excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

V. Testing Requirements

1. Compliance with the emissions limitations of this permit shall be demonstrated in accordance with the following methods and procedures:

   a. Emission limitation:
   0.11 lbs PM/PM_{10}/$PM_{2.5}$ per hour.
   0.48 tons PM/PM_{10}/$PM_{2.5}$ per year.

Applicable compliance method:

In adherence with U.S. EPA's interim guidance regarding new source review for sources of $PM_{2.5}$ emissions, projected PM_{10} emissions are to be used as a surrogate for $PM_{2.5}$ emissions. Therefore, compliance with PM_{10} emission will suffice for compliance with $PM_{2.5}$.

The hourly and annual emissions limitations(PTE) were developed as follows:

The Ladle preheaters are rated at 14.5 mmbtu per hour each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = (14.5 mmBtu/hr. x 1/(1000 Btu/scf) x 7.6 lb PM_{10}/mmscf)

Annual mass emission rate limitation = 0.11 lbs PM_{10} x 8760/2000 = 0.48 tpy

b. Emission limitation:
1.45 lbs NOx/hr.
6.35 tons NOx/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 14.5 mmBtu/hr. each. The emission factor (0.1 lbs NOx/mmBtu) used was provided by the manufacturer for low NOx burners to be used in the preheaters. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 14.5 mmBtu/hr. x 0.10 lbs NOx/mmBtu of natural gas

Annual mass emission rate limitation = 14.5 mmBtu/hr x 0.10 lbs NOx/mmBtu of natural gas x 8760/2000

c. Emission limitation:
1.22 lbs CO /hr.
5.33 tons CO/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 14.5 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 14.5 mmBtu/hr. x 1/(1000 Btu/scf) x 84 lbs CO/mmscf

Annual mass emission rate limitation = 14.5 mmBtu/hr x 1/(1000 Btu/scf) x 84 lbs CO/mmscf x 8760/2000

d. Emission limitation:
0.01 lbs SO2 /hr.
0.04 tons SO2/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 14.5 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 14.5 mmBtu/hr. x 1/(1000 Btu/scf) x 0.6 lbs SO2/mmscf

Annual mass emission rate limitation = 14.5 mmBtu/hr x 1/(1000 Btu/scf) x 0.6 lbs SO2/mmscf x 8760/2000

e. Emission limitation:
0.08 lbs VOC /hr.
0.35 tons VOC/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 14.5 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 14.5 mmBtu/hr. x 1/(1000 Btu/scf) x 5.5 lbs VOC/mmscf

Annual mass emission rate limitation = 14.5 mmBtu/hr x 1/(1000 Btu/scf) x 5.5 lbs VOC/mmscf x 8760/2000

F. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P162 - Ladle Dryer/Preheater No. 4 is fired with natural gas and has a maximum rated heat input of 14.5 mmBtu/hr.	None	None

2. **Additional Terms and Conditions**

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P905 - No. 7 EAF modification. This Electric Arc Furnace is being modified to increase production from 85 tons per hour to 183.3 tons steel/hr. This emission unit is controlled with the No. 4 Melt Shop evacuation control(DEC) and a building evacuation system for capture and a baghouse for control.	OAC rule 3745-31-05(A)(3)	Lead emissions from the control device shall not exceed 0.06 lbs lead/hour 0.240 tons lead/yr. Mercury (Hg) emissions shall not exceed 0.061 lb/hr and 0.27 TPY from the control device. Visible emissions shall not exceed the three (3) percent opacity as a six(6) minute average as measured at the discharge stack of the No. 4 Melt Shop baghouse when the emission unit is operating. Six (6) percent opacity as a six(6) minute average of fugitive dust emissions from roof monitors(vents) and openings of the No. 4 Melt Shop building, including doors, windows, etc. The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 thru 20 and 3745-31-21 thru 27.
	OAC rule 3745-31-21 thru 27	36.7 lbs NOx/hr. 160.75 tpy NOx (Mass emission rates specified above are based on an emission factor of 0.2 lbs NOx/ton steel produced)

		0.35 lbs NOx/ton steel produced 18.33 lbs VOC/hr. 62.24 tpy VOC 0.1 lbs VOC /ton of steel produced Also see section A.I.2.b The filterable PM_{10} emissions rate from the control device serving this emissions unit shall not exceed 28.7 lbs PM_{10} per hour and 125.6 tons PM-10 per year The total $PM_{10}/PM_{2.5}$ emissions rate, which includes filterable and condensible PM_{10} emissions, from the control device serving this emissions unit shall not exceed 100.6 lbs $PM_{10}/PM_{2.5}$ per hour and 440.8 tons $PM_{10}/PM_{2.5}$ per year The filterable PM_{10} grain loading as measured at the discharge of the No. 4 baghouse servicing this emissions unit shall not exceed 0.0014 grains/dscf. The total $PM_{10}/PM_{2.5}$ grain loading, which includes filterable and condensible PM_{10} , as measured at the discharge of the No. 4 baghouse servicing this emissions unit shall not exceed 0.0048 grains/dscf. Also see section A.I.2.a and 2.b
	OAC rule 3745-31-10 thru 20	Also see section A.I.2.c The PM emissions rate from the control device serving this emissions unit shall not exceed 37.7 lbs PM per hour and 165.3 tons PM per year. The filterable PM grain loading as measured at the discharge of the No. 4 baghouse servicing this emissions

	unit shall not exceed 0.0018 grains/dscf. 12.83 lbs SO2/hr. 45.0 tpy SO2 0.07 lbs SO2 per ton of steel produced 366.50 lbs CO/hr. 1285 tpy CO 2 lbs CO/ton of steel produced
OAC rule 37345-17-08	See Section A.2.g
OAC rule 3745-17-07(A)(1)	See Section A.2.g
OAC rule 3745-17-11	See Section A.2.g
OAC rule 3745-18-06(E)(1)	See Section A.2.g
NSPS 40 CFR Part 60, Subpart AAa (10/31/84)	See Section A.2.g

2. Additional Terms and Conditions

a. The $PM_{10}/PM_{2.5}$ emissions from this emissions unit shall be collected and controlled by the No. 4 Melt Shop evacuation system baghouse. This evacuation system is used to control PM and PM_{10} emissions from emission units P907, P905, P106, P160, F009, and parts of P068:.

i. The baghouse shall have a minimum control efficiency of 99 % for PM and PM_{10} emissions.

ii. The evacuation system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the six (6) percent opacity emission limitation for fugitive emissions from the melt shop.

iii. The visible emissions from the dust handling system servicing this emissions unit shall not exceed 10 % as a six minute average.

iv. In adherence with U.S. EPA's interim guidance regarding new source review for sources of $PM_{2.5}$ emissions, projected PM_{10} emissions are to be used as a surrogate for $PM_{2.5}$ emissions. Therefore, compliance with PM_{10} emission will suffice for compliance with $PM_{2.5}$.

b. The permittee shall employ the Lowest Achievable Emission Rate(LAER) specified in section A.I.1 and as defined in OAC rule 37445-31-01(OO) as an emission limitation for NOx and VOC. LAER for NOx consists of the operation of the furnace to minimize NOx generation, the use of low NOx/oxyfuel burner technology and oxygen lances to provide supplemental energy to heats, and emission limitations for NOx as specified in section A.I.1. LAER for VOC consists of the continued use

of the company scrap management plan and emission limitations specified in section A.I.1. The mass rate of emissions for NOx and VOC were developed using the emission factors of 0.2 lbs NOx/ton of steel produced and 0.1 lbs VOC /ton of steel produced respectively. BAT emission limitations are as stringent as LAER.

The permittee shall also employ LAER for PM-2.5. Regulations implementing the Fine
Particulate NAAQS($PM_{2.5}$) have not been finalized yet. US EPA has provided guidance which specifies that permittees must use the PM_{10} regulatory program as a surrogate for $PM_{2.5}$. Therefore, pursuant to this guidance, this project must also satisfy the LAER
requirements for PM_{10}.

c. The permittee shall employ the Best Available Control Technology(BACT) as defined in OAC rule 3745-31-01(M) for PM_{10}/$PM_{2.5}$, Sulfur dioxides, and CO. BAT emission limitations are as stringent as BACT. BACT for this emission unit has been demonstrated to be the following:

   i. The filterable PM emissions shall not exceed a grain loading of 0.0018 grains/dscf. The total PM_{10} emissions, which includes filterable and condensible PM_{10}, shall not exceed 0.0048 grains/dscf. The filterable PM_{10} emissions shall not exceed 0.0014 grains/dscf.

   ii. For Sulfur dioxide, efficient operation of the emissions unit to minimize sulfur dioxide emissions and an emission limitation based on an emission factor of 0.07 lbs SO2 per ton of steel produced.

   iii. For Carbon Monoxide, better CO conversion to CO2 thru the use of an adjustable DEC gap and water cooled duct work. BACT also consists of an emission limitation based on an emission factor of 2 lbs CO/ton of steel produced.

d. The capture system shall achieve and maintain capture efficiency of 99 % for CO and VOC.

e. The terms and conditions specified in this PTI for emission unit P905 supersede all the P905 terms and conditions in PTI 15-01314 dated June 17, 1998 and modified January 22, 2002. In addition, the PM and PM-10 limits for P907, P106, F009, and parts of P068 are combined with the limit for P905.

f. The permittee shall produce no more than 1,284,800 tons liquid steel per year and no more than 183.3 tons of liquid steel per hour from this emissions unit.

g. The emission limit specified by this rule is less stringent than the emission limit established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

1. The permittee shall revise its "Scrap Management Program" to allow the minimal use of scrap charged in the EAF that contains mercury, lead, oils, plastics, and organic materials. The SMP shall be reviewed and approved by the Canton LAA and Ohio EPA. The "Scrap Management Program(SMP)" shall be viewed as an operational restriction for the EAF and implemented immediately upon approval. The permittee shall obtain an approved SMP prior to operating the modified version of this emission unit. Any future change to the "Scrap Management Program" that would increase the amount of these compounds present in the scrap, or result in the emissions of an air contaminant not previously emitted, must be approved by Canton LAA or Ohio EPA. Any radioactive scrap shall be returned to the scrap vendor or handled pursuant to the permittee's Radiation Management Program.

2. The permittee shall employ, at the discharge of this emission unit and prior to the baghouse, an improved DEC gap control system which will allow efficient air infiltration into the DEC duct work providing better CO conversion to CO2. The duct work will be water cooled to promote temperature control to aid in the CO conversion.

3. The static pressure in the free space inside this emissions unit shall be maintained at a level which does not exceed 0.04 inches of water while the emissions unit is in operation. The static pressure level shall be maintained at all times when the EAF is operating during meltdown and refining periods. The permittee may petition the Ohio EPA to re-establish the static pressure limitation whenever the permittee can demonstrate to the Agency's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable.

4. The damper positions for the baghouse shall be maintained in a position in the range of 45 to 81 percent. The baghouse fan motor amperes shall be maintained at 240 amps, plus or minus 15 percent, when a fan is being operated in the #1 fan position, and 300 amps, plus or minus 15 percent, when fans are being operated in fan positions #2, 3, 4, and 6. The values of these parameters shall be maintained at the appropriate levels during operation. Operation at other than baseline values will be considered by the Ohio EPA, DAPC to be unacceptable operation and maintenance of the control system. The permittee shall operate a minimum of three fans when operating one EAF and a minimum of four fans when operating two EAFs. The permittee may petition the Ohio EPA to re-establish fan motor amp limitations whenever the permittee can demonstrate to the Agency's satisfaction that the EAF operating conditions upon which these restrictions were previously established are no longer applicable.

III. Monitoring and/or Record keeping Requirements

1. The following are requirements of the NSPS Subpart AAa. Observations of the opacity of the visible emissions from the control devices shall be performed by a certified visible emissions observer as follows:

   a. Visible emission observations shall be conducted at least once per day when the furnace is operating in the charging, melting, tapping, and refining period. These

observations shall be taken in accordance with Method 9 of 40 CFR Part 60, Appendix A and, for at least three 6-minute periods, the opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In this case, Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the opacity limits specified in section A.I.2.a.

The appropriate records shall be maintained in the permittee's files to identify the persons responsible for conducting the opacity readings and to verify that the Method 9 certifications are up to date for the responsible individuals.

2. The permittee shall monitor the operation of the furnace control systems and maintain records in accordance with the following requirements:

   a. The permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The monitoring device may be installed in any appropriate location in the EAF or DEC ductwork prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.

   b. The permittee shall check and record on a once-per-shift basis the furnace static pressure and either (1) check and record the control system fan motor amperes and damper positions on a once-per-shift basis; or (2) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. The monitoring device may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring devices shall have an accuracy of ± 10 percent over their normal operating range and shall be calibrated according to the manufacturer's instructions. The Ohio EPA, DAPC may require the permittee to demonstrate the accuracy of the monitoring devices relative to Methods 1 and 2 of Appendix A of 40 CFR, Part 60.

   c. The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture systems (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion.) Any deficiencies shall be recorded and proper maintenance performed. The permittee may petition the Ohio EPA, DAPC to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.

d. Upon approval by the USEPA, an alternative method may be established to replace the monitoring and record keeping requirements found in A.III.2.a, .2.b, and 2.c above.

3. The permittee shall perform weekly checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible fugitive particulate emissions from any non-stack egress point from the building housing this emissions unit (e.g., windows, doors, roof monitors, etc.). The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible fugitive particulate emission incident; and
   e. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

   If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

4. The permittee shall maintain records of the tons of liquid steel produced each day, the number of operating hours per day for this emission unit, the average hourly steel production, in tons/hour, for this emissions unit, and the total annual production of liquid steel in tons steel/year. The average daily steel production is calculated by dividing the total tons of steel produced per day by the total number of operating hours per day for this emissions unit.

IV. Reporting

1. The permittee shall submit quarterly written deviation (excursion) reports of all exceedances of opacity restrictions contained in section A.I.1. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity exceeds these limits.

2. The permittee shall submit quarterly written deviation(excursion) reports that identify all exceedance of the furnace static pressure values established in section A.II.3, and any

operation of the control system damper positions outside of the range established in A.II.4, and fan motor amperes at values other than the values established under section A.II.4.

3. The permittee shall submit quarterly deviation reports that identify any exceedance of the permitted allowable mass emission limitations as specified in section A.I.1.

V. Compliance Methods and Testing Requirements

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

The PM emissions rate from the control device serving this emissions unit shall not exceed 37.7 lbs PM per hour. .

The filterable PM_{10} emissions rate from the control device serving this emissions unit shall not exceed 28.7 lbs PM_{10} per hour.

The total $PM_{10}/PM_{2.5}$ emissions rate, which includes filterable and condensible PM_{10}, from the control device serving this emissions unit shall not exceed 100.6 lbs $PM_{10}/PM_{2.5}$ per hour.

The lead emissions rate from the control device serving this emissions unit shall not exceed 0.06 lbs lead/hour.

These limitations are the pounds per hour limitation for PM10 for the combined emissions from P905, P907, P160, F009, P106, and parts of P068. Emission from the No. 4 Melt Shop Baghouse shall not exceed 0.0018 grains/dscf of filterable PM, 0.0014 grains/dscf of filterable PM_{10}, and 0.0048 grains/dscf of total PM_{10}.

Applicable Compliance Method

In adherence with U.S. EPA's interim guidance regarding new source review for sources of $PM_{2.5}$ emissions, projected PM_{10} emissions are to be used as a surrogate for $PM_{2.5}$ emissions. Therefore, compliance with PM_{10} emission will also suffice for compliance with $PM_{2.5}$.

Compliance shall be demonstrated as follows:

The permittee shall demonstrate compliance with PM emission limitations in section A.I.1 by the use of US EPA Method 5, 40 CFR Part 60, Appendix A. The permittee shall demonstrate compliance with total PM_{10} emission limits by using US EPA Method 201or 201A, 40 CFR Part 60, Appendix A for filterable PM_{10} and US EPA Method 202 for condensible PM_{10}. The permittee shall demonstrate compliance with lead emission limitation by the use of US EPA Method 12, 40 CFR Part 60, Appendix A.

Alternative US EPA approved methods and testing procedures may be used upon prior approval of the Canton LAA.

b. Emission limitation

3 percent opacity from the bag house exit, 6 percent opacity resulting from fugitives from # 4 melt shop, and 10 % opacity resulting from the dust handling system.

Applicable Compliance Method

Compliance shall be demonstrated by the use of US EPA Method 9, 40 CFR Part 60, Appendix A.

c. Emission Limitation

12.83 lbs/hour of sulfur dioxide
18.3 lbs/hr of VOC
366.5 lbs/hr. of CO
36.7 lbs/hr. of NOx

Applicable Compliance Method

Compliance may be demonstrated by multiplying the respective pollutant emission factor, in pounds pollutant per ton of steel produced, established during the most recent emission test, by the actual average hourly steel production rate from section A.III.4 (tons/hour).

d. Emission Limitation:

2 lbs CO/ton of steel produced
0.35 lbs NOx/ton of steel produced
0.07 lbs SO_2/ton of steel produced
0.1 lbs VOC/ton of steel produced

Applicable Compliance Method:

The permittee shall demonstrate compliance by the use of the following US EPA test Methods from 40 CFR Part 60, Appendix A or an approved alternative

For CO, Method 10
For NOx, Method 7
For VOC, Method 25
For SO2, Method 6 .

e. Emission Limitations:

165.3 tpy of filterable PM
125.6 tpy of filterable PM_{10}

440.8 tpy of total $PM_{10}/PM_{2.5}$
160.75 tpy of NOx

Applicable Compliance Method:

The tpy emission limitations were developed by multiplying the lbs/hr emission limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitations, compliance will also be shown with the annual emission limitations.

f. Emission limitation:

The permittee shall produce no more than 1,284,800 tons liquid steel per year and no more than 183.3 tons of liquid steel per hour for this emissions unit.

Applicable Compliance Method:

The permittee shall demonstrate compliance by using record keeping as specified in section A.III.4.

g. Emission Limitations:

45.0 tpy of SO2
1285 tpy of CO
62.24 tpy of VOC

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the respective pollutant emission factor, in pounds pollutant per ton of steel produced, established during the most recent stack test, by the actual annual steel production rate from section A.III.4 (tons steel/year).

h. Emission Limitation: 0.061 lb Hg/hr, 0.27 tons of Hg .

Applicable Compliance Method: The lbs/hr limitation was developed by multiplying the PM hourly emission of 37.74 lbs/hr by an emission factor of 0.001608 (Ratio of Hg lb/hr to PM lb/hr based on Method 29 Hg stack test). The permittee shall demonstrate compliance with the hourly Hg limitation by emissions testing conducted in accordance with Methods 1-4 and 29 of 40 CFR, Part 60, Appendix A.

Annual emission limit was developed by multiplying the lbs/hr limitation by the maximum annual operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton.

i. Emission Limitation: Lead emissions from the control device shall not exceed 0.06 lb lead/hour and 0.240 ton lead/yr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated through emission tests performed in accordance with section A.V.2. (Method 12, 40 CFR Part 60, Appendix A.)

The tpy emission limitation was developed by multiplying the lb/hr emission limitation by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance will also be shown with the annual emission limitation.

2. 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 in accordance with the schedule of testing established in the company's Title V permit or within six (6) months following the start of operation of the modified emission unit, whichever is most expeditious;

   b. the test(s) shall be conducted while the emissions units P907, P905, P106, P160, and F009 are operating at or near its maximum capacity unless otherwise specified and approved by the Canton local air agency.

   c. Emissions testing shall be conducted at the bag house discharge to demonstrate compliance with the allowable grain loading, PM/PM-10 mass emission limitations, and the control efficiency of the bag house. The testing shall be conducted utilizing US EPA Method 5(or an approved alternative), 40 CFR Part 60, Appendix A.

   d. Emissions testing shall be conducted to demonstrate compliance with the mass emission limitations for NOx, VOC, SO2, CO, and lead utilizing the following US EPA approved methods:

      i. For NOx: Method 7 or a USEPA approved alternative.
      ii. For VOC: Method 25 or a USEPA approved alternative.
      iii. For Sulfur dioxide: Method 6 or a USEPA approved alternative.
      iv. For Carbon monoxide: Method 10 or a USEPA approved alternative.
      v. For lead: Method 12 or a USEPA approved alternative.

   e. During the test method 9 visible emissions observations shall be conducted on the stack servicing this emissions unit. These readings shall be used to determine compliance with the opacity limitation in section A.I.2;

   f. The parametric monitoring requirements established for the baghouse specified in section A.I.2 shall be checked during the emissions test;

   g. The permittee shall determine compliance with the particulate matter(PM) standards as follows:

i. Method 5D shall be used for positive-pressure fabric filters to determine the particulate matter concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 DSCF) and, when a single EAF is sampled, the sampling time shall include an integral number of heats;

ii. Method 9 and the procedures of 40 CFR Part 60.11 shall be used to determine opacity;

iii. the test runs shall be conducted concurrently, unless inclement weather interferes;

h. The permittee shall determine compliance with the PM_{10} emission limits by using US EPA Methods 201 or 201A for filterable PM_{10} and US EPA Method 202 for condensible PM_{10}(Appendix A, 40 CFR Part 60).

i. During the particulate matter runs, the permittee shall obtain the following additional information:

i. the pressure in the free space inside the furnace shall be determined during the melting and refining period(s) using the monitoring devices required by this permit;

ii. the control system fan motor amperes and all damper positions or the volumetric flow rate through each separately ducted hood shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the EAFs; and,

j. During performance tests, the permittee shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector unless the amount of dilution is separately determined and considered in the determination of emissions.

k. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton 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 Canton Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton 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.

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 Canton Local Air Agency within 30 days following completion of the test(s);

E. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P905 - No. 7 EAF	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

   2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None