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Facility Name: **CSC Limited**

Application Number: **02-1019**

Date: **Draft PTI (date will be entered upon final issuance)**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

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

CONSTRUCTION OF NEW SOURCE(S)

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

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Ohio Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's

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approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

PERMIT TO INSTALL FEE

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

PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

APPLICABILITY

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

BEST AVAILABLE TECHNOLOGY

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

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PERMIT TO OPERATE APPLICATION

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

NINETY DAY OPERATING PERIOD

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

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies.

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AIR EMISSION SUMMARY

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

Ohio EPA Source Number	Source Identification Description	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P906	Ultra high power electric arc furnace (UHP- EAF)	Furnace "elephant house" enclosure/canopy hood system/direct evacuation control (DEC) (98 percent particulate emission capture) (fabric filter control device)	3745-31-05 3745-17-07* 3745-17-08* 3745-17-11* 3745-18-06* 3745-21-07 3745-21-08 3745-23-06 40 CFR, Part 60 Subpart AAa*	Fabric filter control device 0.0032 gr/dscf (PM); PM: 31.2 pounds/hour, and 127.5 TPY PM ₁₀ : 23.7 pounds/hour, and 96.9 TPY No _x : 25.0 pounds/hour, and 71.3 TPY (0.25 pound/ton) CO: 450 pounds/hour, and 1282.5 TPY (4.5 pounds/ton) SO ₂ : 15.0 pounds/hour and 42.8 TPY (0.15 pound/ton) VOC: 18.0 pounds/hour, and 51.3 TPY (0.18 pound/ton)

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P906 Cont'd				Lead: 0.6 pound/hour, and 2.69 TPY **
P907	Ladle refining furnace (LRF)	Side evacuation hood and fume collection systems (99 percent particulate emission capture) (fabric filter control device)	3745-31-05 3745-17-07* 3745-17-08* 3745-17-11* 3745-18-06* 3745-21-08 3745-23-06	Fabric filter control device 0.0032 gr/dscf (PM); PM: 2.1 pounds/hour, and 8.0 TPY PM ₁₀ : 1.6 pounds/hour and 6.1 TPY No _x : 5.0 pounds/hour, and 14.3 TPY (0.05 pound/ton) CO: 100 pounds/hour, and 285 TPY (1.0 pound/ton) SO ₂ : 5.0 pounds/hour and 14.3 TPY (0.05 pound/ton) **
P908	Alloy/ additive material handling system	Pneumatically loaded silos equipped with bin vent fabric filters/enclosed batch holding hoppers equipped	3745-31-05 3745-17-07* 3745-17-08* 3745-17-11*	Fabric filter control device 0.0032 gr/dscf (PM); PM: 1.2 pounds/hour, and

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P908 Cont'd		with bin vent fabric filters/ local transfer point hoods for alloy receiving/conveying/ loading (fabric filter control device)		1.0 TPY PM ₁₀ : 1.0 pound/hour, and 0.9 TPY **
P059	Vacuum tank degasser	Condenser system	3745-31-05 3745-17-07* 3745-17-11* 3745-23-06	CO: 4.0 pounds/hour, and 6.3 TPY **
F008	Continuous caster	Argon gas shrouding system for casting operations/water flume suppression system for cut-off torches	3745-31-05 3745-17-07* 3745-17-08*	PM: 0.2 pound/hour and 0.4 TPY PM ₁₀ : 0.2 pound/hour and 0.4 TPY **

* OAC rules 3745-17-07, 3745-17-08, 3745-17-11, 3745-18-06 and (40 CFR, Part 60 Subpart AAa) (less stringent than BAT)

** Subject to the attached Additional Special Terms and Conditions.

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SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>	<u>Net Emission Increase Tons/Year</u>
PM	140.4	
PM ₁₀	107.4	(2.1 decrease)
No _x	85.5	24.8
CO	1,573.8	(463.7 decrease)
SO ₂	57.0	16.6
VOC	51.3	14.9
Lead	2.69	(0.09 decrease)

NSPS REQUIREMENTS

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P906	Ultra high power electric arc furnace (UHP-EAF)	AAa

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (If required, at least 30 days prior to testing).

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Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and **Ohio EPA, Northeast District Office**
2110 E. Aurora Road
Twinsburg, OH 44087

PERFORMANCE TEST REQUIREMENTS

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

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.
- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
- C. Tests shall be performed for the following source(s) and pollutants(s):

Source

P059
P906 and P907

Pollutant(s)

CO
PM, CO

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REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, OH 44087.**

WASTE DISPOSAL

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

MAINTENANCE OF EQUIPMENT

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

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, OH 44087.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

CONSTRUCTION COMPLIANCE CERTIFICATION

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be

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provided to Ohio EPA upon completion of construction but prior to startup of the source.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

INTRODUCTION

This is a Permit to Install for a new EAF Steel Making Melt Shop and includes the following emission units:

- P906 Ultra High Power Electric Arc Furnace
- P907 Ladle Refining Furnace
- P908 Alloy/Additive Material Handling System
- P059 Vacuum Tank Degasser
- F008 Continuous Caster

I. EMISSION LIMITATIONS AND CONTROL REQUIREMENTS

Ultra High Power Electric Arc Furnace (P906) and Dust Handling System (F006)

The Ultra High Power Electric Arc Furnace shall be installed with a furnace "elephant house" enclosure and canopy hood system in addition to a direct evacuation control (DEC) system. These systems shall be capable of capturing a minimum of 98 percent of the generated emissions of particulate from the air contaminant source operation including charging, melting, refining, and tapping periods in the steel making cycle. Visible particulate emissions of fugitive dust from the electric arc furnace shop due to operation of the UHP-EAF shall not exhibit six (6) percent opacity or greater as a six-minute average.

Particulate emissions captured by the fume collection system for the electric arc furnace shall be exhausted to the existing EAF/LRF fabric filter control device. Particulate emissions from the fabric filter control device outlet shall not exceed 0.0032 grain of particulate emissions per dry standard cubic foot of exhaust gases and visible particulate emissions from the outlet shall not exhibit three (3) percent opacity or greater as a six-minute average.

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CSC Limited shall maintain the existing EAF/LRF fabric filter control device dust-handling system (F006) or modify it, as needed, to ensure compliance with the applicable visible particulate emission standard of less than ten (10) percent opacity as a six- minute average.

Ladle Refining Furnace (P907)

The Ladle Refining Furnace shall be installed with a side evacuation hood and fume collection systems capable of capturing a minimum of 99 percent of the generated emissions of particulate from the air contaminant source operation including argon stirring, bulk alloy additions, alloy wire feed, manual door emissions and steel processing in the ladle refining furnace. Visible particulate emissions of fugitive dust from the electric arc furnace shop due to operation of the ladle refining furnace shall not exhibit six (6) percent opacity or greater as a six-minute average.

Particulate emissions captured by the fume collection systems for the ladle refining furnace shall be exhausted to the existing EAF/LRF fabric filter control device. Particulate emissions from the fabric filter control device outlet shall not exceed 0.0032 grain of particulate emissions per dry standard cubic foot of exhaust gases and visible particulate emissions from the outlet shall not exhibit three (3) percent opacity or greater as a six-minute average.

Alloy/Additive Material Handling System (P908)

The alloy/additive material handling system for the new EAF/LRF will include: 1) five storage silos equipped with bin vent filters; 2) two synthetic flux batch holding hoppers equipped with bin vent filters; and, 3) an alloy receiving/conveying/loading system for the new LRF and EAF.

The lime, carbon and synthetic flux are transferred pneumatically to storage. The pneumatic system shall be adequately enclosed so as to eliminate at all times visible emissions of fugitive dust. Any visible emissions of dust emanation from the delivery vehicle shall be cause for the immediate halt of the unloading process and the refusal of the material load until the situation is corrected.

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The lime and carbon silos shall be adequately enclosed and vented to bin vent filters. The enclosures shall be sufficient so as to minimize at all times visible emissions of fugitive dust at the points of capture. Visible particulate emissions from the filter exhaust shall not exceed (5) percent opacity as a six-minute average.

The synthetic flux silos will be located within a storage shed.

The flux silos shall be adequately enclosed and vented to bin vent filters. The enclosure shall be sufficient so as to minimize at all times visible emissions of fugitive dust at the points of capture. Visible particulate emissions of fugitive dust from the storage shed housing the silos shall not exceed (5) percent opacity as a six-minute average.

The synthetic flux batch holding hoppers shall be adequately enclosed and vented to bin vent filters. The enclosure shall be sufficient so as to minimize at all times visible emissions of fugitive dust at the points of capture. Visible particulate emissions of fugitive dust from the electric arc furnace shop resulting from flux handling thru these hoppers shall not exhibit (6) percent opacity or greater as a six-minute average.

The alloy receiving/conveying/loading system for the new LRF and EAF will be controlled by the existing EAF/LRF fabric filter control device, with local hoods at each alloy transfer point. Particulate emissions shall be captured by the dust collection system with an estimated capture efficiency of 90 percent. The dust collection system shall be sufficient so as to minimize at all times visible emissions of fugitive dust at the points of capture. Visible particulate emissions of fugitive dust from the electric arc furnace shop resulting from the alloy receiving/conveying/loading system shall not exhibit (6) percent opacity or greater as a six-minute average. Particulate emissions from the EAF/LRF fabric filter control device outlet shall not exceed 0.0032 grain of particulate emissions per dry standard cubic foot of exhaust gases and visible particulate emissions from the outlet shall not exhibit three (3) percent opacity or greater as a six-minute average.

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Vacuum Tank Degasser (P059)

The Vacuum Tank Degasser including a multistage steam ejector vacuum system and VTD condenser system shall be installed and operated to minimize emissions of carbon monoxide and particulate matter. Visible particulate emissions from the VTD steam ejector stack shall not exceed five (5) percent opacity as a six-minute average.

Continuous Caster (F008)

An argon gas shrouding system shall be employed to minimize or eliminate visible particulate emissions of fugitive dust from casting operations including molten steel transfers between the steel ladle and tundish and from the tundish to the caster molds. A water flume suppression system below the caster run-out table will minimize or eliminate particulate emissions generated by strand cut-off torches. Visible particulate emissions of fugitive dust from all operations associated with the continuous caster including tundish repair, drying and preheating, the addition of fluxes, caster pouring, cast steel cut-off torches and tundish slag dumping shall not exhibit six (6) percent opacity or greater as a six-minute average.

II. OPERATIONAL RESTRICTIONS

Ultra High Power Electric Arc Furnace Production Limitation

CSC Limited shall restrict their annual liquid steel production to 570,000 tons per year based upon a rolling 365-day period.

In order to assure federal enforceability, for the first twelve calendar months of operation, CSC Limited shall not exceed the following liquid steel production limits for the specific time period.

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<u>Month</u>	<u>Total Allowable Liquid Steel Production</u>
1	47,500 tons
1-2	95,000 tons
1-3	142,500 tons
1-4	190,000 tons
1-5	237,500 tons
1-6	285,000 tons
1-7	332,500 tons
1-8	380,000 tons
1-9	427,500 tons
1-10	475,000 tons
1-11	522,500 tons
1-12	570,000 tons

After the first twelve months of operation, CSC Limited shall restrict the liquid steel production to 570,000 tons per year, based upon a consecutive 365-day period, rolled on a daily basis.

EAF Melt Shop Fabric Filter Control Fan System Operating Restriction

The EAF Melt Shop Fabric Filter Control Fan System consists of three fans. Normal EAF/LRF operations require two operating exhaust fans.

CSC Limited shall restrict the required two fan EAF Melt Shop Fabric Filter Control System operation to 8400 hours per year based upon a rolling 365-day period.

In order to assure federal enforceability, for the first twelve calendar months of operation, CSC Limited shall not exceed the following two fan EAF Melt Shop Fabric Filter Control System operating limits for the specific time period.

<u>Month</u>	<u>Total Allowable Two Fan System Operating Hours</u>
1	700 hours
1-2	1,400 hours
1-3	2,100 hours
1-4	2,800 hours
1-5	3,500 hours
1-6	4,200 hours

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<u>Month</u>	<u>Total Allowable Two Fan System Operating Hours</u>
1-7	4,900 hours
1-8	5,600 hours
1-9	6,300 hours
1-10	7,000 hours
1-11	7,700 hours
1-12	8,400 hours

After the first twelve months of operation, CSC Limited shall restrict two of the three fans in the EAF Melt Shop Fabric Filter Control System operation to 8400 hours per year based upon a rolling 365-day summation of the operating hours.

III. MONITORING AND RECORDKEEPING REQUIREMENTS:

UHP-EAF Production Monitoring and Recordkeeping

- A. CSC Limited shall maintain monthly records of the following information:
1. the liquid steel production rate for each month; and,
 2. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 365-day summation of the liquid steel production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, CSC Limited shall record the cumulative liquid steel production rate for each calendar month.

EAF Melt Shop Fabric Filter Control System Fans Operating Records Monitoring and Recordkeeping

- B. CSC Limited shall maintain monthly records of the following information:
1. the operating hours of the fabric filter two fan system for each month; and,

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2. beginning after the first 12 calendar months of operation of the fabric filter two fan system following the issuance of this permit, the rolling, 365-day summation of the operating hours of the fabric filter two fan system.

Also, during the first 12 calendar months of operation following the issuance of this permit, CSC Limited shall record the cumulative operating hours of the fabric filter two fan system for each calendar month.

UHP-EAF Fabric Filter Visible Emissions Monitoring and Record-keeping

- C. Visible particulate emission observations of the UHP-EAF/LRF positive-pressure fabric filter control device outlets shall occur at least once per day of operation. The observations shall occur when the UHP-EAF is operating in the melting or refining phase of a heat cycle. These observations shall be taken in accordance with Method 9, and shall include at least three 6-minute periods. The opacity shall be recorded for any point(s) where visible emissions are observed. Records shall be maintained of any 6-minute average that is in excess of the emission limit specified and all visible emission observation data shall be retained for at least 5 years following the date of the recording.

UHP-EAF and Fabric Filter Control System Fan Operations Monitoring and Recordkeeping

- D. CSC Limited shall install, calibrate and maintain a monitoring device that allows the pressure in the free space inside the UHP-EAF to be monitored. The monitoring device may be installed in any appropriate location in the EAF duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of plus or minus 5mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions. The pressure shall be recorded as 15-minute integrated averages. The pressure determined during the most recent compliance demonstration shall be maintained at all times when the EAF is operating in a meltdown and refining period.

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Operation at higher pressures will be considered by the Ohio EPA, Division of Air Pollution Control (DAPC) to be unacceptable operation and maintenance of the control system. CSC Limited may petition the Ohio EPA for reestablishment of the 15-minute integrated average of the pressure whenever CSC Limited can demonstrate to the Agency's satisfaction that EAF operating conditions upon which the pressures were previously established are no longer applicable.

CSC Limited shall check and record on a once-per-shift basis the furnace static pressure in the UHP-EAF and either (1) check and record the fabric filter control system fan motor amperes and damper position for each of the operating fans 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 devices shall have an accuracy of plus or minus 10 percent over their normal operating range and shall be calibrated according to the manufacturer's instructions. The Ohio EPA, DAPC may require CSC Limited to demonstrate the accuracy of the monitoring devices relative to Methods 1 and 2 of Appendix A of 40 CFR, Part 60. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate levels for each applicable period. Operation at other than baseline values will be considered by the Ohio EPA, DAPC to be unacceptable operation and maintenance of the control system. CSC Limited may petition the Ohio EPA for reestablishment of these parameters whenever CSC Limited can demonstrate to the Agency's satisfaction that the operating conditions upon which the parameters were previously established are no longer applicable;

CSC limited 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

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dust in ductwork, and fan erosion.) Any deficiencies shall be recorded and proper maintenance performed. CSC Limited 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; and, upon approval by the USEPA, an alternative method may be established to replace the monitoring and recordkeeping requirements found above in the Monitoring and/or Recordkeeping Requirements of this permit.

- E. 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.

IV. REPORTING REQUIREMENTS

Recordkeeping and Reporting Requirements

- A. CSC Limited shall submit deviation (excursion) reports that identify all exceedances of the rolling, 365-day liquid steel production rate limitation from the UHP-EAF and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative production levels from the UHP-EAF.

CSC Limited shall submit deviation (excursion) reports that identify all exceedances of the rolling, 365-day operating hours limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative production levels.

- B. CSC Limited shall submit deviation (excursion) reports that identify all exceedances of the fabric filter control device outlet visible emission opacity limit (i.e., from the baghouse, from the shop area, and from

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the dust handling system). For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is three (3) percent or greater.

- C. CSC Limited shall submit quarterly written deviation (excursion) reports that identify all exceedances of the values established under the Monitoring and/or Recordkeeping Requirements of this permit.
- D. 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 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 Ohio EPA, Northeast District Office. If no deviations occurred during a calendar quarter, CSC Limited shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

V. TESTING REQUIREMENTS

- A. CSC Limited shall conduct, or have conducted, emission testing for emissions units P906 and P907 in accordance with the following requirements and the requirements of 40 CFR Part 60.8:

Within 60 days after achieving the maximum production rate at which the new UHP-EAF and LRF will be operated, but not later than 180 days after initial startup.

During this compliance demonstration, the control system fan motor amperes and damper positions for each of the operating fans will be recorded as well as furnace static

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pressure for the UHP-EAF. Also, the average fan motor amperes will be determined for each fan and a 15-minute integrated average static pressure in the UHP-EAF will be established during the melting and refining periods.

The test(s) shall be conducted while emissions units P906 and P907 are operating at or near their maximum capacities, unless otherwise specified or approved by Ohio EPA, DAPC.

Compliance with the particulate and visible emission limitations in Section I. of these Additional Special Terms and Conditions shall be determined in accordance with the following methods:

B. EAF-LRF Fabric Filter Control Device Outlet:

Emission Limitation

Particulate emissions shall not be discharged into the atmosphere from the control device in excess of 0.0032 grain PM per dry standard cubic foot of exhaust gases.

Applicable Compliance Method

Test Methods as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources":

1. Method 1 for sample and velocity traverses;
2. Method 2 for velocity and volumetric flow rate;
3. Method 3 for gas analysis; and,
4. Method 5D for positive pressure fabric filters for concentration of particulate matter and associated moisture content.

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C. EAF-LRF Fabric Filter Control Device Outlet:

Emission Limitation

Visible particulate emissions shall not be discharged into the atmosphere from the control device outlet and exhibit three (3) percent opacity or greater.

Applicable Compliance Method

Test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources" for the opacity of visible emissions.

- D. The new EAF design represents the best available control technology for the control of CO emissions. Within six months after commencement of operation of the EAF and LRF, the applicant will perform a test of CO emissions in accordance with Method 10, 40 CFR Part 60. The Ohio EPA may establish a numeric CO limit based on the post-construction testing, provided that such limits are representative of at or near their maximum capacities and to allow for expected variability in test procedures.

Emission Limitations

For P906 - 450 pounds per hour (estimated) limit determined as described in above paragraph D.

For P907 - 100 pounds per hour (estimated) limit determined as described in above paragraph D.

E. EAF Shop and Caster Building:

Emission Limitation

Visible particulate emissions shall not be discharged into the atmosphere from the EAF shop or caster building, due to operations of the new emission units including the UHP-EAF, LRF, fluxhoppers, alloy receiving/conveying/loading system or continuous caster, which exhibit six (6) percent opacity or greater.

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Applicable Compliance Method

Test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources" for the opacity of visible emissions.

- F. EAF-LRF Fabric Filter Control Device Dust-Handling System:

Emission Limitation

Visible particulate emissions shall not be discharged into the atmosphere from the dust-handling system and exhibit ten (10) percent opacity or greater.

Applicable Compliance Method

Test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources" for the opacity of visible emissions.

- G. VTD Steam Ejector Stack and Lime, Carbon, Synthetic Flux Silos:

Emission Limitation

Visible particulate emissions shall not be discharged into the atmosphere from the VTD steam ejector stack, bin vent filter exhausts of the lime and carbon silos or the building enclosure for the synthetic flux silos and exceed five (5) percent opacity.

Applicable Compliance Method

Test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources" for the opacity of visible emissions.

Emission Limitation for VTD Steam Ejector (P059)

4.0 pounds CO/hour.

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Applicable Compliance Method

Emission testing using 40 CFR Part 60 Appendix A, Method 10 if practical (see below).

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

1. the permittee shall investigate the ability to conduct stack testing on the egress point (steam ejector) in order to determine the CO and PM/PM₁₀ emissions from this emissions unit. If stack testing on the egress point is technically infeasible, the permittee shall develop a parametric monitoring, recordkeeping, and reporting plan to confirm that CO and PM/PM₁₀ emissions are within established limits;
2. the emission testing shall be conducted within 6 months after startup of this emissions unit;
3. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Ohio EPA, Northeast District Office;
4. the parametric monitoring requirements established above shall be checked during the emissions test;
5. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for CO utilizing Method 10, 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and,

6. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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

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notification for review and approval prior to the test(s) may result in the Ohio EPA, Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northeast District Office 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 Ohio EPA, Northeast District Office within 30 days following completion of the test(s).

VI. MISCELLANEOUS REQUIREMENTS:

Source Shut Down Requirement

The existing EAFs (P902, P904, P905), the No. 7 Ladle Refining Furnace/ Alloy Material Handling System (P903 and P053), Ladle Trim Station (P054) and Vacuum Degassers (Z027 and Z028) will be shut down upon start-up of the new Melt Shop emission units installed under PTI No. 02-1019.

Contemporaneous Emission Increases and Decreases

Installation of the new UHP-EAF, LRF, EAF/LRF Alloy/Additive Material Handling System, VTD, Continuous Caster and Cooling Tower/Wet Surface Air Cooler under (PTI No. 02-1019) and the permanent shutdown of the three existing EAFs, one LRF, an Alloy/Additive Material Handling System, Ladle Trim Station and two Vacuum Degassers will result in net emission changes as follows:

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	<u>CO</u>	<u>NOx</u>	<u>TONS/YEAR</u>			<u>VOC</u>	<u>PM10</u>	<u>Pb</u>
NEW: UHP-EAF (P906), LRF (P907), EAF/LRF Alloy/Additive Material Handling System (P908), VTD (P059), Continuous Caster (F008), Cooling Tower/Wet Surface Air Cooler and Alloy/Additive Material Handling System (P908)	1573.8	85.5	57.0		51.3	107.4	2.69	
EXISTING: EAFs (P902,P904&P905), #7 LRF (P903), #7 LRF Alloy/Additive Material Handling System (P053), Ladle Trim Station (P054) and Vacuum Degassers (Z027 & Z028)	2037.5	60.7	40.4		36.4	109.5	2.78	
NET CHANGE	-463.7	+24.8	+16.6		+14.9	-2.1	-0.09	
SIGNIFICANCE LEVEL	100	40	40		40	15	0.6	