Ohio Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

6/16/2011

Certified Mail

Facility ID: 0684000225
Permit Number: P0105796
County: Washington

Matt Greene
Solsil Incorporated
P.O. Box 99
County Road 32
Beverly, OH 45715

RE: DRAFT AIR POLLUTION TITLE V PERMIT
Permit Type: Initial

Dear Permit Holder:

A draft of the OAC Chapter 3745-77 Title V permit for the referenced facility has been issued. The purpose of this draft is to solicit public comments. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Marietta Times. A copy of the public notice, the Statement of Basis, and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page,www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on processing the Title V permit will be made after consideration of comments received and oral testimony if a public hearing is conducted. You will then be provided with a Preliminary Proposed Title V permit and another opportunity to comment prior to the 45-day Proposed Title V permit submittal to U.S. EPA Region 5. The permit will be issued final after U.S. EPA review is completed and no objections to the final issuance have been received. If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501.

Sincerely,

Michael W. Ahern

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

Cc: U.S. EPA Region 5 -*Via E-Mail Notification*
Ohio EPA-SEDO; Pennsylvania; West Virginia

Washington County

PUBLIC NOTICE
Issuance of Draft Air Pollution Title V Permit
Solsil Incorporated

Issue Date: 6/16/2011
Permit Number: P0105796
Permit Type: Initial
Permit Description: Initial Title V operating permit for Solsil, Inc. Including 6 individual 1,000 kW induction furnaces for the production of high purity silicon controlled by baghouse including pouring and casting emissions.
Facility ID: 0684000225
Facility Location: Solsil Incorporated
P.O. Box 99, County Road 32
Beverly, OH 45715
Facility Description: Electrometallurgical Ferroalloy Product Manufacturing

The Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued a draft action of an air pollution control Title V operating permit for the facility at the location identified above on the date indicated. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Cara Cherry at Ohio EPA DAPC, Southeast District Office, 2195 Front Street, Logan, OH 43138 or (740)385-8501. The permit, which includes a detailed description of the operations, and associated statement of basis for the permit requirements, can be downloaded from the Web page: www.epa.ohio.gov/dapc

# Statement of Basis For Air Pollution Title V Permit

| | |
|---|---|
| Facility ID: | 0684000225 |
| Facility Name: | Solsil Incorporated |
| Facility Description: | Electrometallurgical products. |
| Facility Address: | P.O. Box 99, Beverly, OH 45715 |
| Permit #: | P0105796, Initial |

This facility is subject to Title V because it is major for:

☐ Lead ☐ Sulfur Dioxide ☐ Carbon Monoxide ☐ Volatile Organic Compounds ☐ Nitrogen Oxides
☒ Particulate Matter ≤ 10 microns ☐ Single Hazardous Air Pollutant ☐ Combined Hazardous Air Pollutants
☐ Maximum Available Control Technology Standard(s)

**A. Standard Terms and Conditions**

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| Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01 (U)? | Yes |
| Were there any common control issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them. | Yes. The facility is co-located on the same property and co-owned by Globe Metallurgical (Facility ID # 06-84-00-0105), which is a Title V facility. For this reason, the two facilities are considered one for Title V applicability. |
| Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1) | N/A |
| Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3) | N/A |
| Please identify the affected unit(s)and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D) | N/A |
| Please identify the affected unit(s) and associated | N/A |

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| PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E) | |

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

| Term and Condition (paragraph) | Basis | | Comments |
|---|---|---|---|
| | SIP (3745- ) | Other | |
| 2. | 15-05 | | Two insignificant emissions units are located at the facility and are exempt from permit requirements because they are not subject to any applicable requirements and they meet the "de minimis" criteria established in OAC rule 3745-15-05. |
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**C. Emissions Unit Terms and Conditions**

Key:
EU = emissions unit ID
ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)
OR = operational restriction
M = monitoring requirements
St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement
ENF = did noncompliance issues drive the monitoring requirements?
R = record keeping requirements
Rp = reporting requirements
ET = emission testing requirements (not including compliance method terms)
Misc = miscellaneous requirements

| EU(s) | Limitation | Basis | | ND | OR | M | St | ENF | R | St | Rp | St | ET | Misc | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SIP (3745- ) | Other | | | | | | | | | | | | |
| P919, P920 | Visible PE from stack shall not exceed 20% opacity as a six-minute average, except as specified by rule | 17-07(A) | N | N | N | Y | N | N | Y | N | Y | N | Y | N | Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16<br><br>Required to conduct daily visible emissions checks and submit semi-annual reports on observations. |
| P919, | Visible fugitive PE shall not | 17-07(B) | N | N | N | Y | N | N | Y | N | Y | N | Y | N | Testing "if required" language is used verses requiring a periodic timeline for testing |

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| P920 | exceed 20% opacity as a three-minute average | | | | | | | | | | | | | | because unit is "non-major source" per Ohio EPA EG #16<br><br>Required to conduct daily visible emissions checks and submit semi-annual reports on observations. |
| P919, P920 | PE from stack shall not exceed 0.030 gr/dscf or there shall be no visible PE, whichever is less stringent<br><br>Permittee shall employ reasonably available control measures on this emissions unit. | 17-08 | N | N | Y | Y | N | N | Y | N | Y | N | Y | N | The use of a baghouse is required and they must keep a record and report if not used.<br><br>Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16<br><br>Required to conduct daily visible emissions checks and submit semi-annual reports on observations. |
| P915, P916, P917, P918 | PE from stack shall not exceed 0.01 lb/hour and there shall be no visible PE | N | Y | N | Y | Y | N | N | Y | N | Y | N | Y | N | 3745-31-05 per PTI 06-08134 issued 6/21/07<br><br>The use of a baghouse is required and they must keep a record and report if not used.<br><br>Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16<br><br>Required to conduct daily visible emissions checks and submit semi-annual reports on observations. |
| P915, P916, P917, P918 | $PM/PM_{10}$ shall not exceed 0.04 tons/year, as a rolling, 12- | N | Y | N | Y | Y | N | N | Y | N | Y | N | Y | N | 3745-31-05(D) per PTI 06-08134 issued 6/21/07<br><br>The use of a baghouse is required and they |

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| | month summation.<br><br>Emissions of fugitive $PM/PM_{10}$ shall not exceed 0.31 ton/year, as a rolling, 12-month summation. | | | | | | | | | | | | | | must keep a record and report if not used.<br><br>Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16 |
| P915, P916, P917, P918 | Visible PE not collected by the capture hood shall not exceed 5% opacity as a three-minute average, including pouring and casting. | N | Y | N | Y | Y | N | N | Y | N | Y | N | Y | N | 3745-31-05 per PTI 06-08134 issued 6/21/07<br><br>Required to conduct daily visible emissions checks and submit semi-annual reports on observations.<br><br>Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16 |
| P915, P916, P917, P918 | The facility shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust | N | Y | N | Y | Y | N | N | Y | N | Y | N | Y | N | 3745-31-05 per PTI 06-08134 issued 6/21/07<br><br>The use of a baghouse is required and they must keep a record and report if not used.<br><br>Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16 |
| P919, P920 | PE from the stack shall not exceed 2.29 lbs/hr | 17-11(B) | N | N | N | Y | N | N | Y | N | Y | N | Y | N | Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16<br><br>The use of a baghouse is required and they must keep a record and report if not used. |

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| P919, P920 | PM/$PM_{10}$ shall not exceed 0.57 tons/yr, as a rolling, 12-month summation<br><br>PE shall be controlled at all times through the use of a baghouse with a control efficiency of not less than 99% and the capture efficiency of not less than 95% | N | Y | N | Y | Y | N | N | Y | N | Y | N | Y | N | 3745-31-05(D) per PTI P0107476 - requested a synthetic minor limitation to avoid PSD<br><br>The use of a baghouse is required and they must keep a record and report if not used.<br><br>Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16 |
| P919, P920 | PE from the baghouse stack shall not exceed 0.02 lb/hr and there shall be no visible PE.<br><br>Visible fugitive PE shall not exceed 5% opacity as a three-minute average, including pouring and casting.<br><br>Best available control measures to minimize or eliminate visible PE of fugitive dust | N | Y | N | Y | Y | N | N | Y | N | Y | N | Y | N | 3745-31-05(A)(3), as effective 11/30/01 (Per PTI P0107476)<br><br>The use of a baghouse is required and they must keep a record and report if not used.<br><br>Testing "if required" language is used verses requiring a periodic timeline for testing because unit is "non-major source" per Ohio EPA EG #16<br><br>Required to conduct daily visible emissions checks and submit semi-annual reports on observations. |

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| P919, P920 | No limit- negative declaration | N | 31-05 | Y | N | N | N | N | N | N | N | N | N | N | PTI P0107476 states under OAC rule 3745-31-05(A)(3)(a)(ii) that once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP the Best Available Technology requirements under OAC rule 3745-31-05(A(3) do not apply to particulate emissions (PE) from this air contaminant source since the uncontrolled potential to emit for PE is less than ten tons per year. |

Ohio | Environmental Protection Agency

# DRAFT

# Division of Air Pollution Control
# Title V Permit
for
Solsil Incorporated

| | |
|---|---|
| Facility ID: | 0684000225 |
| Permit Number: | P0105796 |
| Permit Type: | Initial |
| Issued: | 6/16/2011 |
| Effective: | To be entered upon final issuance |
| Expiration: | To be entered upon final issuance |

Ohio Environmental Protection Agency

**Division of Air Pollution Control**
**Title V Permit**
for
Solsil Incorporated

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# Authorization

Facility ID: 0684000225
Facility Description: Electrometallurgical products.
Application Number(s): A0022349, A0039218
Permit Number: P0105796
Permit Description: Initial Title V operating permit for Solsil, Inc. Including 6 individual 1,000 kW induction furnaces for the production of high purity silicon controlled by baghouse including pouring and casting emissions.
Permit Type: Initial
Issue Date: 6/16/2011
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number:

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Solsil Incorporated
P.O. Box 99
County Road 32
Beverly, OH 45715

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

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Southeast District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

# A. Standard Terms and Conditions

## 1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

*(Authority for term: ORC 3704.036(A))*

## *2.* Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*

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 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.

*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*

c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive

measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the

insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))*

(4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))*

(5) Reports of any required monitoring and/or record keeping information shall be submitted to Ohio EPA DAPC, Southeast District Office.

*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

**3. Scheduled Maintenance**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

**4. Risk Management Plans**

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

*(Authority for term: OAC rule 3745-77-07(A)(4))*

**5. 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.

*(Authority for term: OAC rule 3745-77-07(A)(5))*

**6. 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.

*(Authority for term: OAC rule 3745-77-07(A)(6))*

**7. General Requirements**

a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

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

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

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

Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(1) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; orthe permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; ora combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminent sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

*(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))*

**8. 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.

*(Authority for term: OAC rule 3745-77-07(A)(8))*

**9. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(9))*

**10. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(10))*

## 11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

*(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))*

## 12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

*(Authority for term: OAC rule 3745-77-07(B))*

## 13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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:

(1) 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.

(2) 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 paragraph (E) of OAC rule 3745-77-03.Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(3) 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:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) 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.

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. An identification of each term or condition of this permit that is the basis of the certification.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

*(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))*

**14. Permit Shield**

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

*(Authority for term: OAC rule 3745-77-07(F))*

**15. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

*(Authority for term: OAC rules 3745-77-07(H)(1) and (2))*

**16. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

*(Authority for term: OAC rule 3745-77-07(G))*

**17. Off-Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that

qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

*(Authority for term: OAC rule 3745-77-07(I))*

**18. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

*(This term is provided for informational purposes only.)*

**19. Insignificant Activities or Emissions Levels**

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**20. Permit to Install Requirement**

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**21. 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.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**22. Permanent Shutdown of an Emissions Unit**

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

*(Authority for term: OAC rule 3745-77-01)*

**23. Title VI Provisions**

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

*(Authority for term: OAC rule 3745-77-01(H)(11))*

**24. Reporting Requirements Related to Monitoring and Record Keeping RequirementsUnder State Law Only**

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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.)Records Retention Requirements Under State Law Only

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.

**25. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

*(Authority for term: OAC rule 3745-77-07(C))*

**26. 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 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. 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 emissions unit(s) that is (are) served by such control system(s).

**27. 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.

*(Authority for term: OAC rule 3745-77-01(C))*

**28. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or

c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

# B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) B.2.

2. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements (as defined in OAC rule 3745-77-01(H)) or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

| EU ID | Operations, Property and/or Equipment Description |
|---|---|
| P002 | Cooling Tower for Induction Furnaces (OAC rule 3745-15-05) |
| F001 | Material Handling and Transfer Operations (OAC rule 3745-15-05) |

# C. Emissions Unit Terms and Conditions

## 1. Emissions Unit Group -induction furnaces: P915, P916, P917 and P918

| EU ID | Operations, Property and/or Equipment Description |
|---|---|
| P915 | No. 6 Induction Furnace controlled with a baghouse (1,000 kW induction furnace producing high purity Si metal including pouring and casting). |
| P916 | No. 9 Induction Furnace controlled with a baghouse (1,000 kW induction furnace producing high purity Si metal including pouring and casting). |
| P917 | No. 10 Induction Furnace controlled with a baghouse (1,000 kW induction furnace producing high purity Si metal including pouring and casting). |
| P918 | No. 11 Induction Furnace controlled with a baghouse (1,000 kW induction furnace producing high purity Si metal including pouring and casting). |

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3)<br>(PTI 06-08134 issued 6/21/07) | <u>Stack Emissions Limitations</u>:<br><br>Particulate Emissions (PE) from the baghouse stack shall not exceed 0.01 lb/hour and there shall be no visible PE.<br><br><u>Fugitive Emissions Limitations</u>:<br><br>Visible emissions of fugitive particulate not collected by the capture hood shall not exceed 5% opacity as a three minute average, including pouring and casting.<br><br>The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | | See (2)a. below.<br><br>The requirement of this rule also includes compliance with the requirements of OAC rule 3745-31-05(D). |
| b. | OAC rule 3745-31-05(D)<br>(Synthetic minor to avoid PSD) | <u>Stack Emissions Limitations:</u><br><br>Particulate Matter/Particulate Matter less than 10 microns in diameter ($PM/PM_{10}$) shall not exceed 0.04 tons/year, as a rolling, 12-month summation.<br><br><u>Fugitive Emissions Limitations:</u><br><br>Emissions of fugitive $PM/PM_{10}$ shall not exceed 0.31 ton/year, as a rolling, 12-month summation.<br><br>See c)(1) below. |
| c. | OAC rule 3745-17-07(A)<br>OAC rule 3745-17-07(B)<br>OAC rule 3745-17-08<br>OAC rule 3745-17-11(B) | The emissions limitations specified by these rules are less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3). |

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures on all charging, melting and tapping operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall maintain enclosures and vent particulate emissions to the baghouse to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing additional measures to ensure compliance.

[OAC rule 3745-31-05]

c) Operational Restrictions

(1) $PM/PM_{10}$ emissions from the stack shall be controlled at all times through the use of a baghouse with a control efficiency of not less than 99% and the capture efficiency of no less than 95%.

[OAC rule 3745-31-05(D)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. the total duration of any visible emission incident; and

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

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from this emission unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible 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.

[OAC rule 3745-77-07(C)(1)]

(3) The permittee shall maintain daily records that document any time periods when the baghouse was not in service when the emissions unit was in operation.

[OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the capture hood serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1)]

(3) The permittee shall notify the Director (Southeast District Office) in writing of any record showing that the baghouse was not in service when this emissions unit was in operation. The notification shall include a copy of such record, including the estimated quantity of emissions due to the event and shall be sent to the Director (Southeast District Office) within 30 days after the event occurs.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emissions limitations in b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

**a.** Emissions Limitation:

PE from the baghouse stack shall not exceed 0.01 lb/hour and there shall be no visible PE.

Applicable Compliance Method:

The PE emission limitation of 0.01 lb/hour was based on the following equation:

(1.24 lbs/hour) X (0.95 capture efficiency) X (100- estimated control efficiency) = 0.01 lb/hr

where:

1.24 lbs of furnace fume per hour of operation (based on October 2006 engineering test as submitted in PTI application. Facility doubled rate to be conservative and account for variability in fume generation);

95% closed hooding/baghouse capture efficiency (based on application information); and

99% baghouse control efficiency (based on application information)

If required, the pounds of PE per hour shall be determined according to test Methods 1-5 as set for th in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources". Tests shall be performed during worst-case operating conditions at the stack, as determined by OEPA-SEDO.

If required, visible particulate emissions shall be determined according to USEPA Method 22.

[OAC rule 3745-77-07(C)(1)]

b. Emissions Limitation:

$PM/PM_{10}$ shall not exceed 0.04 tons/year, as a rolling, 12-month summation.

Applicable Compliance Method:

The annual emission limit was determined by the following equation:

(1.24 lbs/hour) X (0.95 capture efficiency) X (1- 0.99 estimated control efficiency) X (8,760 hours/1 year) X (1 ton/2,000 lbs) = 0.04 tons/year, as a rolling, 12-month summation

where:

1.24 lbs of furnace fume per hour of operation (based on October 2006 engineering test as submitted in PTI application. Facility doubled rate to be conservative and account for variability in fume generation);

95% closed hooding/baghouse capture efficiency (based on application information); and

99% baghouse control efficiency (based on application information)

[OAC rule 3745-77-07(C)(1)]

**c.** Emissions Limitation:

Emissions of fugitive $PM/PM_{10}$ shall not exceed 0.31 ton/year, as a rolling, 12-month summation.

Applicable Compliance Method:

The annual emission limit was determined by the following equation:

(1.24 lbs/hour X 1/estimated capture efficiency) – 1.24 lb/hour = 0.07 lb/hour

(0.07 lb/hour) x (8,760 hrs/1 year) X (1ton/2,000 lbs) = 0.31 ton/year, as a rolling 12-month summation.

where:

1.24 lbs of furnace fume per hour of operation (based on October 2006 engineering test as submitted in PTI application. Facility doubled rate to be conservative and account for variability in fume generation); and

95% capture efficiency (based on application information)

[OAC rule 3745-77-07(C)(1)]

d. Emissions Limitation:

Visible emissions of fugitive particulate not collected by the capture hood shall not exceed 5% opacity as a three minute average, including pouring and casting.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

## 2. Emissions Unit Group -induction furnaces: P919 and P920

| EU ID | Operations, Property and/or Equipment Description |
|---|---|
| P919 | No. 12 Induction Furnace controlled with a baghouse (1,000 kW induction furnace producing high purity Si metal including pouring and casting) |
| P920 | No. 13 Induction Furnace controlled with a baghouse (1,000 kW induction furnace producing high purity Si metal including pouring and casting) |

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| a. | OAC rule 3745-31-05(A)(3), as effective 11/30/01<br>(PTI P0107476 issued 3/9/11) | <u>Stack Emissions Limitations:</u><br><br>Particulate emissions (PE) from the baghouse stack shall not exceed 0.02 pound per hour and there shall be no visible PE.<br><br><u>Fugitive Emissions Limitations:</u><br><br>Visible emissions of fugitive dust shall not exceed 5% opacity as a three minute average, including pouring and casting.<br><br>The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust.<br><br>See b)(2)a and b)(2)c. below. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | | The requirement of this rule also includes compliance with the requirements of OAC rule 3745-31-05(D). |
| b. | OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06 | See b)(2)b. below. |
| c. | OAC rule 3745-17-07(A) | Visible particulate emissions (PE) from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.<br><br>This emissions limitation is less stringent than the limitation listed under OAC rule 3745-31-05(A)(3), until such time as U.S. EPA approves the December 1, 2006, version of OAC rule 3745-31-05 as part of the State Implementation Plan. |
| d. | OAC rule 3745-17-07(B) | Visible fugitive PE shall not exceed 20 percent opacity as a three-minute average.<br><br>This emissions limitation is less stringent than the limitation listed under OAC rule 3745-31-05(A)(3), until such time as U.S. EPA approves the December 1, 2006, version of OAC rule 3745-31-05 as part of the State Implementation Plan. |
| e. | OAC rule 3745-17-08 | PE from the baghouse stack shall not exceed 0.030 grains per dry standard cubic foot of exhaust gases or there shall be no visible PE, whichever is less stringent.<br><br>This emissions limitation is less stringent than the limitation listed under OAC rule 3745-31-05(A)(3), until such time as U.S. EPA approves the December 1, 2006, version of OAC rule 3745-31-05 as part of the State Implementation Plan.<br><br>See b)(2)c. below. |
| f. | OAC rule 3745-17-11(B) | PE from the baghouse stack shall not exceed 2.29 pounds per hour. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| | | This emissions limitation is less stringent than the limitation listed under OAC rule 3745-31-05(A)(3), until such time as U.S. EPA approves the December 1, 2006, version of OAC rule 3745-31-05 as part of the State Implementation Plan. |
| g. | OAC rule 3745-31-05(D) (Synthetic minor to avoid PSD) | Particulate Matter/Particulate Matter less than 10 microns in diameter ($PM/PM_{10}$) shall not exceed 0.57 ton per year, as a rolling, 12-month summation.<br><br>See (c)(1) below. |

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

[OAC rule 3745-31-05]

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) from this air contaminant source since the uncontrolled potential to emit for PE is less than ten tons per year.

[OAC rule 3745-31-05]

c. The permittee shall employ best/reasonably available control measures on this emissions unit for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall employ a capture system, which includes enclosures, that minimizes or eliminates visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design and vents

the emissions to a baghouse that is capable of meeting the applicable requirements. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

[OAC rule 3745-17-08 and OAC rule 3745-31-05]

c) Operational Restrictions

(1) Particulate emissions shall be controlled at all times through the use of a baghouse with a control efficiency of not less than 99% and the capture efficiency of not less than 95%.

[OAC rule 3745-17-08 OAC rule 3745-31-05(D)]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the capture hood serving this emission unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to minimize or eliminate the visible 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.

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain daily records that document any time periods when the baghouse was not in service when the emissions unit was in operation.

[OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) identify all days during which any visible emissions of fugitive dust were observed from the capture hood serving this emissions unit, and (c) describe any corrective actions taken to minimize or eliminate the visible particulate emissions and/or visible fugitive dust emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall notify the Director (Southeast District Office) in writing of any record showing that the baghouse was not in service when this emissions unit was in operation. The notification shall include a copy of such record, including the estimated quantity of emissions due to the event and shall be sent to the Director (Southeast District Office) within 30 days after the event occurs.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the emissions limitations in b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emissions Limitation:

PE from the baghouse stack shall not exceed 0.02 pound per hour and there shall be no visible PE.

Applicable Compliance Method:

The emission limit was determined by the following equation:

Stack Emissions:

(2.20 lbs/hour) X (0.95 capture efficiency) X (1 - 0.99 estimated control efficiency) = 0.02 lb/hr.

where:

2.20 lbs of PE per hour (based on data generated from fume/dust collected in baghouse during October 2006 engineering test as submitted in air PTI application. Facility doubled rate to be conservative and account for variability in fume generation);

95% closed hooding/baghouse capture efficiency (based on application information); and

99% baghouse control efficiency (based on application information).

If required, the pounds of PE per hour shall be determined according to test Methods 1-5 as set for th in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources". Tests shall be performed during worst-case operating conditions at the stack, as determined by OEPA-SEDO.

If required, visible particulate emissions shall be determined according to USEPA Method 22.

[OAC rule 3745-77-07(C)(1)]

b. Emissions Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity as a three minute average, including pouring and casting.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

c. Emissions Limitation:

Visible PE from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

[OAC rule 3745-77-07(C)(1)]

d. Emissions Limitation:

Visible fugitive PE shall not exceed 20 percent opacity as a three-minute average.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

[OAC rule 3745-77-07(C)(1)]

e. Emissions Limitation:

PE from the baghouse stack shall not exceed 0.030 grains per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions, whichever is less stringent.

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources" and/or USEPA Method 22, and the procedure specified in OAC rule 3745-17-03(B)(7). Tests shall be performed during worst-case operating conditions at the stack, as determined by OEPA-SEDO

[OAC rule 3745-77-07(C)(1)]

f. Emissions Limitation:

PE from the baghouse stack shall not exceed 2.29 pounds per hour.

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources", and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office. Tests shall be performed during worst-case operating conditions at the stack, as determined by OEPA-SEDO.

[OAC rule 3745-77-07(C)(1)]

g. Emissions Limitation:

$PM/PM_{10}$ shall not exceed 0.57 ton per year, as a rolling, 12-month summation.

Applicable Compliance Method:

The annual emission limit was determined by the following equations:

Stack Emissions:

(2.20 lbs/hour) X (0.95 capture efficiency) X (1 - 0.99 estimated control efficiency) X (8,760 hours/1 year) X (1 ton/2,000 lbs) = 0.09 ton/year.

Fugitive Emissions:

(2.20 lbs/hour) X (0.05 capture loss) X (8,760 hours/1 year) X (1 ton/2,000 lbs) = 0.48 ton/year

Total Emissions:

0.09 ton/year + 0.48 ton/year = 0.57 ton/year, as a rolling, 12-month summation.

where:

2.20 lbs of $PM/PM_{10}$ per hour (based on data generated from fume/dust collected in baghouse during October 2006 engineering test as submitted in air PTI application. Facility doubled rate to be conservative and account for variability in fume generation);

95% closed hooding/baghouse capture efficiency (based on application information); and

99% baghouse control efficiency (based on application information).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.