PUBLIC NOTICE

Hoeganaes Corporation has applied to the Tennessee Department of Environment and Conservation, Division of Air Pollution Control for a significant modification to their existing major source (Title V) operating permit subject to the provisions of Tennessee Air Pollution Control Regulations 1200-03-09-.02(11) (Title V Regulations). A major source operating permit is required by both the Federal Clean Air Act and Tennessee’s air pollution control regulations. However, it should be noted that this facility has a current major source operating permit.

The Title V operating permit subject to the modification is identified as follows: Division identification number 83-0129/575853. The specific permit conditions affected by this modification are identified as follows: E1 (fee payment); E2 (reporting requirements); E20-1 through E20-5 (source specific conditions for 83-0129-48). Only the portions of the Title V permit affected by this significant modification are open for comment during the notice period.

EPA has agreed to treat this draft significant modification to permit no. 575853 as a proposed Part 70 significant permit modification and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA’s 45-day review period will cease to be performed concurrently with the public notice period. In this case, EPA’s 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. The status regarding EPA’s 45-day review of these permits and the deadline for submitting a citizen’s petition can be found at the following website address:

https://www.epa.gov/CAA-permitting/tennessee-proposed-title-v-permits"

Copies of the application materials and draft permits are available for public inspection during normal business hours at the following locations:

Nashville Environmental Field Office
Division of Air Pollution Control
711 R.S. Gass Blvd
Nashville, TN 37216

and

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Electronic copies of the draft permit and application materials are available by accessing the TDEC internet site located at:


Questions concerning the source(s) may be addressed to Shawn Auth at (615) 532-6812 or by e-mail at Shawn.Auth@tn.gov.

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be received no later than 4:30 PM on June 16, 2022. To assure that written comments are received and addressed in a timely manner, written comments must be submitted using one of the following methods:

1. **Mail, private carrier, or hand delivery:** Address written comments to Ms. Michelle W. Owenby, Director, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 15th Floor, Nashville, Tennessee 37243.

2. **E-mail:** Submit electronic comments to air.pollution.control@tn.gov.

A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to review information maintained at the above-mentioned depositories should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such review. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 22nd Floor, Nashville, TN 37243, 1-(866)-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.
**TITLE V PERMIT STATEMENT**  
**Proposed Addendum – Significant Modification #1**

<table>
<thead>
<tr>
<th>Facility Name:</th>
<th>Hoeganaes Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>City:</td>
<td>Gallatin</td>
</tr>
<tr>
<td>County:</td>
<td>Sumner</td>
</tr>
</tbody>
</table>

| Date Application Received: | December 10, 2018 |
| Date Application Deemed Complete: | December 10, 2018 |

| Emission Source Reference No.: | 83-0129 |
| Permit No.: | 575853 |

**INTRODUCTION**

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-03-09-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to Hoeganaes Corporation and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the compliance status with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

**Acronyms:**
- PSD  Prevention of Significant Deterioration
- NESHAP  National Emission Standards for Hazardous Air Pollutants
- NSPS  New Source Performance Standards
- MACT  Maximum Achievable Control Technology
- NSR  New Source Review

**I. Identification Information.**

**A. Source Description.**

<table>
<thead>
<tr>
<th>Source Description</th>
<th>Source Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoeganaes Corporation is a powdered iron production facility.</td>
<td></td>
</tr>
<tr>
<td>83-0129-01: Electric Arc Furnace (EAF) and Melt Shop</td>
<td>83-0129-39: Carbon Injection System</td>
</tr>
<tr>
<td>83-0129-02: North Rotary Kiln Dryer</td>
<td>83-0129-41: Carbon Silo</td>
</tr>
<tr>
<td>83-0129-03: North Process Line (Screening)</td>
<td>83-0129-42: HCl Dip Tank</td>
</tr>
<tr>
<td>83-0129-04: Annealing Furnaces 1-8</td>
<td>83-0129-43: Dry Additive Fill Operation</td>
</tr>
<tr>
<td>83-0129-12: Blending Operation</td>
<td>83-0129-45: Two RICE Generators</td>
</tr>
<tr>
<td>83-0129-18: Annealing Furnaces 9-12</td>
<td>83-0129-46: Natural Gas Fired Generator (22kW)</td>
</tr>
<tr>
<td>83-0129-31: Ladle Metallurgy Facility (LMF)</td>
<td>83-0129-47: Natural Gas Fired Generator (8kW)</td>
</tr>
</tbody>
</table>
B. **Initial Title V Permit History**

1. The initial Title Permit #548480 was issued on May 8, 2009.
2. Administrative Permit Amendment #1 was issued on July 30, 2009, to add a minimum pressure drop limitation for source 83-0129-03.
3. Minor Permit Modification #1 was issued on January 19, 2010, for the addition of a new natural gas-fired ladle preheater for source 83-0129-01.
4. Administrative Permit Amendment #2 was issued on February 4, 2011, for a change in the minimum pressure drop limit for source 83-0129-04.
5. Administrative Permit Amendment #3 was issued on January 25, 2012, for a change in responsible official.
6. Minor Permit Modification #2 was issued on February 28, 2012, for the following changes: (1) routing emissions to new vents for source 83-0129-12, (2) adding a new baghouse to source 83-0129-37, (3) adding an HCl dip tank as new source 83-0129-42, and (4) change in responsible official.
7. Minor Permit Modification #3 was issued on April 3, 2012, for the addition of a new baghouse and the redesignation of ten dry additive storage tanks from source 83-0129-12 to source 83-0129-43.
8. Administrative Permit Amendment #4 was issued on September 28, 2012, to set a pressure drop limitation for source 83-0129-37.
9. Minor Permit Modification #4 was issued on January 3, 2013, for the addition of two emergency RICE with generators as source 83-0129-45.
10. Minor Permit Modification #5 was issued on April 16, 2013, for the addition of three new baghouses to replace an existing baghouse for source 83-0129-04.
11. Administrative Permit Amendment #5 was issued on May 29, 2013, for a change in pressure drop for source 83-0129-04.
12. Significant Modification #1 was issued on October 24, 2013, to combine source 83-012-18 and 83-0129-37, to add three new baghouses, and to remove three existing baghouses.
13. A minor permit modification application was received on May 15, 2014, for the replacement of a baghouse for source 83-0129-04. This modification is included in the new Title V permit.
14. Title V Renewal Permit #567725 was issued on August 12, 2014.
15. Minor Permit Modification #1 (issued October 14, 2014) requested the addition of two RICE with generators. Applications are dated June 4, 2014, and June 18, 2014. Conditions E1 and E2 were modified. Conditions E18-8 and E19-1 to E19-9 were added.
16. Administrative Permit Amendment #1 (issued October 23, 2014) requested the addition of a pressure drop limit for EP-18, which is part of Source 83-0129-04. Application is dated September 16, 2014. Conditions E1, E7-6, and E7-7 were modified.
17. Minor Permit Modification #2 (issued December 16, 2014) requested the replacement of baghouse EP-30, which is part of Source 83-0129-04. Application is dated August 27, 2014. Conditions E1, E7-6, and E7-7 were modified.
18. Administrative Permit Amendment #2 (issued March 25, 2015) requested the addition of a pressure drop limit for the new baghouse EP-30, which is part of Source 83-0129-04. Application is dated March 5, 2015. Conditions E7-6 and E7-7 were modified.
19. Administrative Permit Amendment #3 (issued July 16, 2015) requested the addition of a pressure drop limit for the new baghouse EP-48, which is part of Source 83-0129-18. Application is dated June 3, 2015. Condition E9-8 was modified.
20. Minor Permit Modification #3 requested the replacement of a dust collector in the pre-annealing area for Annealing Furnaces 1 through 8 (source 83-0129-04), which will affect emission point EP-22. Application is dated August 10, 2015. Condition E7-8 was modified and former Condition B10 was removed.
21. Minor Permit Modification #4 requested the replacement of the screening dust collector for the North Process Line (source 83-0129-03), which will affect emission point EP-3. Application is dated October 8, 2015. Condition E6-1 was modified.
22. Administrative Permit Amendment #4 (issued October 13, 2016) requested the addition of a pressure drop limit for EP-22, which is part of Source 83-0129-04. Application is dated September 8, 2016. Condition E7-8 was modified.
23. Administrative Permit Amendment #5 (issued November 21, 2017) resulted in the following revisions:
   a. The requested baghouse minimum pressure drop reading of 1.4 inches of water based on 60 readings as contained in the letter dated September 21, 2017 from the permittee has been included in Condition E6-1. This was for a baghouse that replaced the existing screening dust collector for the North Process Line (source 83-0129-03), known as emission point EP-3. Condition E6-1 was also revised to reflect the emission standard assigned for a replacement baghouse which has an allowable that must not exceed 0.005 grain per dry standard cubic foot of exhaust gas (1.20 pounds per hour) stipulated in the permit before this amendment. Also, this condition now incorporates monitoring the baghouse pressure drop daily to verify if the readings are at 1.4 inches of water or more.
b. Condition E2(b) was updated for clarification, specifically E2(b)(2), using current language removing language stating “Whether such method(s) or other means provide continuous or intermittent data.” Whether compliance was continuous or intermittent is relevant not whether the methods were providing continuous or intermittent data.

c. The fee payment table shown in Condition E1 was adjusted. The PM allowable limit in the table was revised to 177.5 tons/yr. This is based on the new allowable limit for E6-1, engine PM allowable values of lbs/hr and tons/year were added (Conditions E17-4, E18-3, and E19-3) that were not previously included, and the PM values for four previous permit changes were compiled providing a new cumulative total for allowable particulate in tons per year.

24. Minor Permit Modification #5 was requested by the permittee for the purpose of replacing existing EP-11 baghouse with a new pulse jet baghouse with a design flow rate of 33,800 cfm. The application is dated February 1, 2018. An outlet concentration limit of 0.005 grains/dscf with an associated allowable PM rate of 1.45 lbs/hr was requested. A new pressure drop value will be established after the baghouse is installed and 60 days of readings are provided. This pertains to Source 83-0129-12 Blending Operation and affects Condition E8-1. Additionally, a decrease of 1.14 tons/yr will result in allowable emissions due to this change. The fee table listed in Condition E1 was adjusted to reflect a new PM plant wide allowable of 177.4 tons/yr. Additionally, due to new provisions for fee payments promulgated by the Division for Title V sources, Conditions A8, A12, and E1 were updated allowing a facility an annual choice to pay fees on actual emissions, allowable emissions or a mixed basis.

25. Administrative Amendment #6 set the pressure drop limit of equal to or greater than 0.7 inches of H2O for source 83-0129-12 condition E8-1. Application is dated March 8, 2019. Condition E8-1 was modified.

### C. Facility Classification

1. **Attainment or Non-Attainment Area Location.** Area is designated as an attainment area for all criteria pollutants.

2. Company is located in a Class II area (generally speaking, this means that the facility is not located within a national park or national wilderness area; see 40 CFR §52.21(e) for complete definition).

### D. Regulatory Status

1. **PSD/NSR.** This facility is a major source under PSD.

2. **Title V Major Source Status by Pollutant.**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Is the pollutant emitted?</th>
<th>If emitted, what is the facility’s status?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Major Source Status</td>
</tr>
<tr>
<td>PM</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>PM_{10}</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>SO_{2}</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>VOC</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>NO_{x}</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>CO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Individual HAP</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Total HAPs</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>GHG</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

3. **NESHAP Standards.** This facility is not a major source for HAPs. This facility is subject to a final NESHAP. The facility is subject to 40 CFR 63, subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) and 40 CFR 63, subpart YYYYY (National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities).

4. **Program Applicability.** Are the following programs applicable to the facility?

   - PSD (yes, facility has undergone PSD review)
   - NESHAP (yes)
   - NSPS (yes) Subpart AAa

### II. Compliance Information

A. **Compliance Status.** Is the facility currently in compliance with all applicable requirements? (yes)

   Are there any applicable requirements that will become effective during the permit term? (no)

### III. Other Requirements

A. **Emissions Trading.** The facility is not involved in an emission trading program.
B. **Acid Rain Requirements.** This facility is not subject to any requirements in Title IV of the Clean Air Act.

C. **Prevention of Accidental Releases.** This facility is not subject to TAPCR 1200-03-32.

IV. **Public Participation Procedures.**

A. Notification of this draft permit was mailed to the following environmental agencies:
   1. U.S. EPA Region 4
   2. Kentucky Department for Environmental Protection

V. **Title V Renewal Permit History**

A. Title V Renewal Permit #575853 was issued on May 29, 2020.
   1. 40 CFR 63 Subpart XXXXXX was deemed non-applicable per the EPA Initial Notification NESHAP form; Not applicable per 40 CFR 63.11514
   2. Permit conditions were updated from the previous operating permit, including permit standard shell [Sections A-E]. Many permit conditions had had no regulatory citations or compliance methods, this was corrected to reflect the most up to date information.
   3. Source 37 (Annealing Furnaces 11-12) was combined into Source 18, Annealing Furnaces 9-12.

B. Administrative Amendment #1 to Permit #575853 was issued August 13, 2020
   1. Corrected Condition E1 AAP section annual accounting period dates.
   2. Corrected Condition E2(a) dates to remove the specified years and the annual certification periods in E2(b).
   3. Updated the compliance method of conditions E3-11 and E3-13 to clarify them.
   4. Condition E4-1 (a) through (e) was split into individual conditions (E4-1 through E4-5); all other E4 conditions renumbered appropriately.
   5. Updated condition E4-17 (previously E4-13) to fix a type and to fix what regulation didn’t apply, 40 CFR 60.273a(c).
   6. Add reference to 40 CFR 60 Subpart AA to Condition E4-18(b) (previously E4-14(b)) and correct the wording of E18(c).
   7. Added wording to Condition E4-26 (previously E4-22) to require the Technical Secretary to be informed once the permittee has omitted 0.5 tons per year of lead.

C. Minor Modification #1 to Permit #575853 was issued February 9, 2021
   1. Updated Condition E1(MM1) Fee Emissions Summary table.
   2. Updated Condition E2(MM1)(a) to include Source 48, Conditions E20-1(MM1) and E20-2(MM1).
   3. Added Bonder Process (83-0129-48) conditions; E20-1(MM1) through E20-3(MM1). (PSD Avoidance)

D. Significant Modification #1 to Permit #575853 - PROPOSED

Based on further review of the application and Minor Modification #1, this equipment was determined to require an Significant Modification. Title V construction permit 978920 was issued July 16, 2021.

   1. Updated Condition E1(SM1) Fee Emissions Summary table.
   2. Updated Condition E2(SM1)(a)(1) to include Source 48, Conditions E20-1(SM1) and E20-2(SM1), updated Condition E2(SM1)(a)(2) to include E20-5(SM1)
   3. Updated Bonder Process (83-0129-48) conditions; E20-1(SM1) through E20-5(SM1). (PSD Avoidance)

Title V Operating Permit 575853 Significant Modification #1
STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243

Significant Modification 1 (SM1) to
OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations (TAPCR). The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

Date Issued: May 29, 2020
Date Modified: PROPOSED
Date Expires: May 28, 2025
Permit Number: 575853

Issued To: Hoeganaes Corporation
Installation Address: 1315 Airport Road
Gallatin

Installation Description:
Powdered Iron Production

Facility ID: 83-0129

Renewal Application Due Date:
Between August 31, 2024 and November 29, 2024

Information Relied Upon:
PSD permit application dated November 25, 2002
Renewal Application dated December 7, 2019
January 29, 2020 Application
June 25, 2020 Application
April 7, 2021 Application

(continued on the next page)

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS

7/11/19 RDA-1298
## CONTENTS

### SECTION A

**GENERAL PERMIT CONDITIONS**

<table>
<thead>
<tr>
<th>A1. Definitions</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2. Compliance requirement</td>
<td>1</td>
</tr>
<tr>
<td>A3. Need to halt or reduce activity</td>
<td>1</td>
</tr>
<tr>
<td>A4. The permit</td>
<td>1</td>
</tr>
<tr>
<td>A5. Property rights</td>
<td>1</td>
</tr>
<tr>
<td>A6. Submittal of requested information</td>
<td>1</td>
</tr>
<tr>
<td>A7. Severability clause</td>
<td>1</td>
</tr>
<tr>
<td>A8. Fee payment</td>
<td>2</td>
</tr>
<tr>
<td>A9. Permit revision not required</td>
<td>2</td>
</tr>
<tr>
<td>A10. Inspection and entry</td>
<td>2</td>
</tr>
<tr>
<td>A11. Permit shield</td>
<td>3</td>
</tr>
<tr>
<td>A12. Permit renewal and expiration</td>
<td>3</td>
</tr>
<tr>
<td>A13. Reopening for cause</td>
<td>3</td>
</tr>
<tr>
<td>A14. Permit transference</td>
<td>4</td>
</tr>
<tr>
<td>A15. Air pollution alert</td>
<td>4</td>
</tr>
<tr>
<td>A16. Construction permit required</td>
<td>4</td>
</tr>
<tr>
<td>A17. Notification of changes</td>
<td>4</td>
</tr>
<tr>
<td>A18. Schedule of compliance</td>
<td>4</td>
</tr>
<tr>
<td>A19. Title VI</td>
<td>4</td>
</tr>
<tr>
<td>A20. 112(r)</td>
<td>5</td>
</tr>
</tbody>
</table>

### SECTION B

**GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT**

<table>
<thead>
<tr>
<th>B1. Recordkeeping</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2. Retention of monitoring data</td>
<td>6</td>
</tr>
<tr>
<td>B3. Reporting</td>
<td>6</td>
</tr>
<tr>
<td>B4. Certification</td>
<td>6</td>
</tr>
<tr>
<td>B5. Annual compliance certification</td>
<td>6</td>
</tr>
<tr>
<td>B6. Submission of compliance certification</td>
<td>7</td>
</tr>
<tr>
<td>B7. Emergency provisions</td>
<td>7</td>
</tr>
<tr>
<td>B8. Excess emissions reporting</td>
<td>7</td>
</tr>
<tr>
<td>B9. Malfunctions, startups and shutdowns - reasonable measures required</td>
<td>8</td>
</tr>
<tr>
<td>B10. Reserved</td>
<td>8</td>
</tr>
<tr>
<td>B11. Report required upon the issuance of notice of violation</td>
<td>8</td>
</tr>
<tr>
<td>CONTENTS</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td></td>
</tr>
<tr>
<td>SECTION C</td>
<td></td>
</tr>
<tr>
<td>PERMIT CHANGES</td>
<td></td>
</tr>
<tr>
<td>C1. Operational flexibility changes</td>
<td>9</td>
</tr>
<tr>
<td>C2. Section 502(b)(10) changes</td>
<td>9</td>
</tr>
<tr>
<td>C3. Administrative amendment</td>
<td>9</td>
</tr>
<tr>
<td>C4. Minor permit modifications</td>
<td>9</td>
</tr>
<tr>
<td>C5. Significant permit modifications</td>
<td>10</td>
</tr>
<tr>
<td>C6. New construction or modifications</td>
<td>10</td>
</tr>
</tbody>
</table>

| SECTION D |
| GENERAL APPLICABLE REQUIREMENTS |
| D1. Visible emissions | 11 |
| D2. General provisions and applicability for non-process gaseous emissions | 11 |
| D3. Non-process emission | 11 |
| D4. General provisions and applicability for process gaseous | 11 |
| D5. Particulate emissions from process emission sources | 11 |
| D6. Sulfur dioxide emission standards | 11 |
| D7. Fugitive dust | 11 |
| D8. Open burning | 12 |
| D9. Asbestos | 12 |
| D10. Annual certification of compliance | 12 |
| D11. Emission Standards for Hazardous Air Pollutants | 12 |
| D12. Standards of Performance for New Stationary Sources | 12 |
| D13. Gasoline Dispensing Facilities | 12 |
| D14. Internal Combustion Engines | 12 |
## SECTION E

**SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E1(SM1). Fee payment</td>
<td>13</td>
</tr>
<tr>
<td>E2(SM1). Reporting and recordkeeping requirements</td>
<td>15</td>
</tr>
<tr>
<td>E3. General Permit Requirements</td>
<td>17</td>
</tr>
<tr>
<td>E4(AA1). Electric Arc Furnace (EAF) and Melt Shop (83-0129-01)</td>
<td>21</td>
</tr>
<tr>
<td>E5. North Rotary Dryer (83-0129-02)</td>
<td>29</td>
</tr>
<tr>
<td>E6. North Process Line (Screening) (83-0129-03)</td>
<td>31</td>
</tr>
<tr>
<td>E7. Annealing Furnaces 1-8 (83-0129-04)</td>
<td>31</td>
</tr>
<tr>
<td>E8. Blending Operation (83-0129-12)</td>
<td>36</td>
</tr>
<tr>
<td>E9. Annealing Furnaces 9-12 (83-0129-18)</td>
<td>36</td>
</tr>
<tr>
<td>E10. Ladle Metallurgy Facility (LMF) (83-0129-31)</td>
<td>44</td>
</tr>
<tr>
<td>E11. South Rotary Dryer (83-0129-32)</td>
<td>47</td>
</tr>
<tr>
<td>E13. Carbon Injection System (83-0129-39)</td>
<td>50</td>
</tr>
<tr>
<td>E14. Carbon Silo (83-0129-41)</td>
<td>50</td>
</tr>
<tr>
<td>E15. HCI Dip Tank (83-0129-42)</td>
<td>50</td>
</tr>
<tr>
<td>E16. Dry Additive Fill Operation (83-0129-43)</td>
<td>51</td>
</tr>
<tr>
<td>E17. Two RICE Generators (83-0129-45)</td>
<td>51</td>
</tr>
<tr>
<td>E18. Natural Gas Fired Generator (22kW) (83-0129-46)</td>
<td>53</td>
</tr>
<tr>
<td>E19. Natural Gas Fired Generator (8kW) (83-0129-47)</td>
<td>55</td>
</tr>
<tr>
<td>E20(SM1). Bonder Process (83-0129-48)</td>
<td>56</td>
</tr>
</tbody>
</table>

**END OF SIGNIFICANT MODIFICATION #1 TO PERMIT NUMBER 575853**  

| Attachment 1: Opacity Matrix Decision Tree for Visible Emission | 1 page |
| Attachment 2: APC 36 - TITLE V FEE SELECTION | 2 pages |
| Attachment 3: Hoeganaes CAM Plan | 12 pages |
SECTION A

GENERAL PERMIT CONDITIONS

A permit issued under the provisions of paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

A1. Definitions. Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulation.

TAPCR 1200-03

A2. Compliance requirement. All terms and conditions in a permit issued pursuant to paragraph 1200-03-09-.02(11) including any provisions designed to limit a source’s potential to emit, are enforceable by the Administrator and citizens under the Federal Act. The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3. Need to halt or reduce activity. The need to halt or reduce activity is not a defense for noncompliance. It shall not be a defense for a 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 conditions of the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4. The permit. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5. Property rights. The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6. Submittal of requested information. The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

A7. Severability clause. The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09-.02(11)(e)1(v)
A8. Fee payment.
(a) The permittee shall pay an annual Title V emission fee based upon the responsible official's choice of actual emissions, allowable emissions, or a combination of actual and allowable emissions; and on the responsible official's choice of annual accounting period. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A Title V annual emission fee will not be charged for emissions in excess of the cap. Title V annual emission fees will not be charged for carbon monoxide or for greenhouse gas pollutants solely because they are greenhouse gases.
(b) Title V sources shall pay allowable based emission fees until the beginning of the next annual accounting period following receipt of their initial Title V operating permit. At that time, the permittee shall begin paying their Title V fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees. Once permitted, the Responsible Official may revise their existing fee choice by submitting a written request to the Division no later than December 31 of the annual accounting period for which the fee is due.
(c) When paying annual Title V emission fees, the permittee shall comply with all provisions of 1200-03-26-.02 and 1200-03-09-.02(11) applicable to such fees.
(d) Where more than one (1) allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.
1. Sources that are subject to federally promulgated hazardous air pollutant under 40 CFR 60, 61, or 63 will place such regulated emissions in the regulated hazardous air pollutant (HAP) category.
2. A category of miscellaneous HAPs shall be used for hazardous air pollutants listed at part 1200-03-26-.02(2)(i) that are not subject to federally promulgated hazardous air pollutant standards under 40 CFR 60, 61, or 63.
3. HAPs that are also in the family of volatile organic compounds, particulate matter, or PM$_{10}$ shall not be placed in either the regulated HAP category or miscellaneous HAP category.
4. Sources that are subject to a provision of chapter 1200-03-16 New Source Performance Standards (NSPS) or chapter 400-03-39 Standards of Performance for New Stationary Sources for pollutants that are neither particulate matter, PM$_{10}$, sulfur dioxide (SO$_2$), volatile organic compounds (VOC), nitrogen oxides (NO$_x$), or hazardous air pollutants (HAPs) will place such regulated emissions in an NSPS pollutant category.
5. The regulated HAP category, the miscellaneous HAP category, and the NSPS pollutant category are each subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).
6. Major sources that wish to pay annual emission fees for PM$_{10}$ on an allowable emission basis may do so if they have a specific PM$_{10}$ emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM$_{10}$ emission basis, it may do so if the PM$_{10}$ emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM$_{10}$ emission levels must be made as part of the source’s major source operating permit in advance in order to exercise this option. The PM$_{10}$ emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) shall also apply to PM$_{10}$ emissions.

TAPCR 1200-03-26-.02 and 1200-03-09-.02(11)(e)(i)(vii)

A9. Permit revision not required. A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)(i)(viii)

A10. Inspection and entry. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or an authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:
(a) Enter upon, at reasonable times, the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
(d) As authorized by the Clean Air Act and Chapter 1200-03-10 of TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
(e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)(i)(iii)
A11. **Permit shield.**
(a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:
   1. Such applicable requirements are included and are specifically identified in the permit; or
   2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
(b) Nothing in this permit shall alter or affect the following:
   1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;
   2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
   3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or
   4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.
(c) Permit shield is granted to the permittee.

TAPCR 1200-03-09-.02(11)(e)6

A12. **Permit renewal and expiration.**
(a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days prior to the expiration of this permit. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.
(b) If the permittee submits a timely and complete application for permit renewal the source will not be considered to be operating without a permit until the Technical Secretary takes final action on the permit application, except as otherwise noted in paragraph 1200-03-09-.02(11).
(c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)2 and 3, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13. **Reopening for cause.**
(a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:
   1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the permit expiration date of this permit, unless the original has been extended pursuant to 1200-03-09-.02(11)(a)2.
   2. Additional requirements become applicable to an affected source under the acid rain program.
   3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
   4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
(b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.
(c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.
(d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, he is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he agrees or disagrees with the Administrator's findings. If he agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:
   1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90 day time period.
   2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.
3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13(b) and Condition A13(c).

4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), he shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how he should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator’s objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical Secretary to conform to EPA’s demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR. 1200-03-09-.02(11)(f)6 and 7.

A14. Permit transference. An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:
(a) Transfer of ownership permit application is filed consistent with the provisions of 1200-03-09-.03(6), and
(b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

A15. Air pollution alert. When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR 1200-03-09-.03(1) and TAPCR 1200-03-15-.03.

A16. Construction permit required. Except as exempted in TAPCR 1200-03-09-.04, or excluded in subparagraph TAPCR 1200-03-02-.01(1)(aa) or subparagraph TAPCR 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

A17. Notification of changes. The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.
(a) change in air pollution control equipment
(b) change in stack height or diameter
(c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

A18. Schedule of compliance. The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3 and 40 CFR Part 70.5(c)

A19. Title VI. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.
2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

(b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
(c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

A20. **112 (r).** Sources which are subject to the provisions of Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder, shall annually certify in writing to the Technical Secretary that they are properly following their accidental release plan. The annual certification is due in the office of the Technical Secretary no later than January 31 of each year. Said certification will be for the preceding calendar year.

TAPCR 1200-03-32-.03(3)
SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1. **Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

(a) Where applicable, records of required monitoring information include the following:
   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 analysis;
   4. The analytical techniques or methods used;
   5. The results of such analyses; and
   6. The operating conditions as existing at the time of sampling or measurement.

(b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B2. **Retention of monitoring data.** The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)

B3. **Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B4. **Certification.** Except for reports required under “State Only” requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

B5. **Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* “Excursion” shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** “Exceedance” shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or
less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

B6. **Submission of compliance certification.** The compliance certification shall be submitted to:

| The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit | and | Air Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303 |

TAPCR 1200-03-09-.02(11)(e)(3(v)(IV)

B7. **Emergency provisions.** An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology based emission limitation due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. “Probable” must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.

2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.

3. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

4. The permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in rule 1200-03-20-.03. For the purposes of this condition, “emergency” shall be substituted for “malfunction(s)” in rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in Division 1200-03 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8. **Excess emissions reporting.**

(a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:
1. Stack or emission point involved
2. Time malfunction, startup, or shutdown began and/or when first noticed
3. Type of malfunction and/or reason for shutdown
4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation
5. The company employee making entry on the log must sign, date, and indicate the time of each log entry

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

**B9. Malfunctions, startups and shutdowns - reasonable measures required.** The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60 (Standards of performance for new stationary sources), 61 (National emission standards for hazardous air pollutants) and 63 (National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

**B10. Reserved.**

**B11. Report required upon the issuance of a notice of violation for excess emissions.** The permittee must submit within twenty (20) days after receipt of the notice of violation, the data required below. If this data has previously been available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same twenty (20) day time period. The minimum data requirements are:

(a) The identity of the stack and/or other emission point where the excess emission(s) occurred;
(b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
(c) The time and duration of the emissions;
(d) The nature and cause of such emissions;
(e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;
(f) The steps taken to limit the excess emissions during the occurrence reported, and
(g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the twenty (20) day period specified shall preclude the admissibility of the data for determination of potential enforcement action.

TAPCR 1200-03-20-.06(2), (3) and (4)
SECTION C
PERMIT CHANGES

C1. **Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:
   (a) The change cannot be subject to a requirement of Title IV of the Federal Act or Chapter 1200-03-30.
   (b) The change cannot be a modification under any provision of Title I of the federal Act or Division 1200-03.
   (c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.
   (d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in Rule 1200-03-09-.04.
   (e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.
   (f) The change shall not qualify for a permit shield under the provisions of part 1200-03-09-.02(11)(e)6.
   (g) The permittee shall keep a record describing the 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. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4 (ii)

C2. **Section 502(b)(10) changes.**
(a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7 day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.
   (b) The written notification must be signed by a facility Title V responsible official and include the following:
      1. a brief description of the change within the permitted facility;
      2. the date on which the change will occur;
      3. a declaration and quantification of any change in emissions;
      4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and
      5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.
   (c) The permit shield provisions of TAPCR 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4 (i)

C3. **Administrative amendment.**
(a) Administrative permit amendments to this permit shall be in accordance with 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.
   (b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR 1200-03-09-.02(11)(e), TAPCR 1200-03-09-.02(11)(f) and TAPCR 1200-03-09-.02(11)(g) for significant permit modifications.
   (c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

C4. **Minor permit modifications.**
(a) The permittee may submit an application for a minor permit modification in accordance with TAPCR 1200-03-09-.02(11)(f)5(ii).
   (b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.
   (c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.
   (d) Minor permit modifications do not qualify for a permit shield.
C5. **Significant permit modifications.**
(a) The permittee may submit an application for a significant modification in accordance with TAPCR 1200-03-09-.02(11)(f)5(iv).
(b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6. **New construction or modifications.**
Future construction at this facility that is subject to the provisions of TAPCR 1200-03-09-.01 shall be governed by the following:
(a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.
(b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR 1200-03-09-.02(11)(f)5(iv).
(c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d) 1(i)(V)
**SECTION D**  
**GENERAL APPLICABLE REQUIREMENTS**

**D1. Visible emissions.** With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of twenty (20) percent (6-minute average) except for one six minute period per one (1) hour of not more than forty (40) percent opacity. Sources constructed or modified after July 7, 1992 shall utilize 6-minute averaging.

Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or an authorized representative upon request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6), and TAPCR 1200-03-05-.02(1)

**D2. General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

**D3. Non-process emission standards.** The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR 1200-03-06.

**D4. General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

**D5. Particulate emissions from process emission sources.** The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR 1200-03-07.

**D6. Sulfur dioxide emission standards.** The permittee shall not cause, suffer, allow, or permit Sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

**D7. Fugitive Dust.**

(a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, material stock piles, and other surfaces which can create airborne dusts;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.  
(b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or twenty (20) minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in Chapter 1200-03-20.

TAPCR 1200-03-08

D8. Open burning. The permittee shall comply with the TAPCR 1200-03-04 for all open burning activities at the facility.

TAPCR 1200-03-04

D9. Asbestos. Where applicable, the permittee shall comply with the requirements of TAPCR 1200-03-11-.02(2)(d) when conducting any renovation or demolition activities at the facility.

TAPCR 1200-03-11-.02(2)(d) and 40 CFR, Part 61

D10. Annual certification of compliance. The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are not subject to source-specific applicable requirements contained in State of Tennessee and U.S. EPA regulations. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)1 and compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit compliance certification for these conditions annually.

D11. Emission Standards for Hazardous Air Pollutants. When applicable, the permittee shall comply with the TAPCR 0400-30-38 for all emission sources subject to a requirement contained therein.

TAPCR 0400-30-38

D12. Standards of Performance for New Stationary Sources. When applicable, the permittee shall comply with the TAPCR 0400-30-39 for all emission sources subject to a requirement contained therein.

TAPCR 0400-30-39

D13. Gasoline Dispensing Facilities. When applicable, the permittee shall comply with the TAPCR 1200-03-18-.24 for all emission sources subject to a requirement contained therein.


(a) All stationary reciprocating internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR 0400-30-38-.01.

(b) All stationary compression ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR 0400-30-39-.01.

(c) All stationary spark ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR 0400-30-39-.02.

TAPCR 0400-30-38 and 39
SECTION E
SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

83-0129 Facility Description: Powdered Iron Production.

Conditions E1 through E3-24 apply to all sources in Section E of this permit unless otherwise noted.

E1(SM1). Fee payment

FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 83-0129

<table>
<thead>
<tr>
<th>REGULATED POLLUTANTS</th>
<th>ALLOWABLE EMISSIONS (tons per AAP)</th>
<th>ACTUAL EMISSIONS (tons per AAP)</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARTICULATE MATTER (PM)</td>
<td>156.24</td>
<td>AEAR</td>
<td>Includes all fee emissions.</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>N/A</td>
<td>AEAR</td>
<td>Includes all fee emissions.</td>
</tr>
<tr>
<td>SO₂</td>
<td>107.11</td>
<td>AEAR</td>
<td>Includes all fee emissions.</td>
</tr>
<tr>
<td>VOC</td>
<td>51.82</td>
<td>AEAR</td>
<td>Includes all fee emissions.</td>
</tr>
<tr>
<td>NOₓ</td>
<td>272.29</td>
<td>AEAR</td>
<td>Includes all fee emissions.</td>
</tr>
</tbody>
</table>

CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAPs WITHOUT A STANDARD)*

<table>
<thead>
<tr>
<th></th>
<th>REGULAR EMISSIONS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC FAMILY GROUP</td>
<td>N/A</td>
<td>Not applicable</td>
</tr>
<tr>
<td>NON-VOC GASEOUS</td>
<td>8.5</td>
<td>AEAR</td>
</tr>
<tr>
<td>PM FAMILY GROUP</td>
<td>N/A</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAPs WITH A STANDARD)**

<table>
<thead>
<tr>
<th></th>
<th>REGULAR EMISSIONS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC FAMILY GROUP</td>
<td>N/A</td>
<td>Not applicable</td>
</tr>
<tr>
<td>NON-VOC GASEOUS</td>
<td>N/A</td>
<td>Not applicable</td>
</tr>
<tr>
<td>PM FAMILY GROUP</td>
<td>N/A</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***

<table>
<thead>
<tr>
<th>REGULAR EMISSIONS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EACH NSPS POLLUTANT NOT LISTED ABOVE</td>
<td>N/A</td>
</tr>
</tbody>
</table>

NOTES

AAP The Annual Accounting Period (AAP) is a 12 consecutive month period that either (a) begins each July 1st and ends June 30th of the following year when fees are paid on a fiscal year basis, or (b) begins January 1st and ends December 31st of the same year when paying on a calendar year basis. The Annual Accounting Period at the time of modification issuance began July 1, 2021 and ends June 30, 2022. The next Annual Accounting Period begins July 1, 2022 and ends June 30, 2023 unless a request to change the annual accounting period is submitted by the responsible official as required by subparagraph 1200-03-26-.02(9)(b) of the TAPCR and approved by the Technical Secretary. If the permittee wishes to revise their annual accounting period or their annual emission fee basis as allowed by subparagraph 1200-03-26-.02(9)(b) of the TAPCR, the responsible official must submit the request to the Division in writing on or before December 31 of the annual accounting period for which the fee is due. If a change in fee basis from allowable emissions to actual emissions for any pollutant is requested, the request from the responsible official must include the methods that will be used to determine actual emissions. Changes in fee bases must be made using the Title V Fee Selection form, form number APC 36 (CN-1583), included as an attachment to this permit and available on the Division of Air Pollution Control’s website.

N/A N/A indicates that no emissions are specified for fee computation.

AEAR If the permittee is paying annual emission fees on an actual emissions basis, AEAR indicates that an Actual Emissions Analysis is Required to determine the actual emissions of:

1. each regulated pollutant (Particulate matter, SO₂, VOC, NOₓ and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),
2. each pollutant group (VOC Family, Non-VOC Gaseous, and Particulate Family),
3. the Miscellaneous HAP Category,
4. the Specific HAP Category, and
The Permittee shall:

1. Pay Title V annual emission fees, on the emissions and year bases requested by the responsible official and approved by the Technical Secretary, for each annual accounting period (AAP) by the payment deadline(s) established in TAPCR 1200-03-26-.02(9)(g). Fees may be paid on an actual, allowable, or mixed emissions basis; and on either a state fiscal year or a calendar year, provided the requirements of TAPCR 1200-03-26-.02(9)(b) are met. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8).

2. Sources paying annual emissions fees on an allowable emissions basis: pay annual allowable based emission fees for each annual accounting period no later than April 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d).

3. Sources paying annual emissions fees on an actual emissions basis: prepare an actual emissions analysis for each AAP and pay actual based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d). The actual emissions analysis shall include:
   - the completed Fee Emissions Summary Table,
   - each actual emissions analysis required, and
   - the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary’s representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the annual fee basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the actual emissions analyses required by the above Fee Emissions Summary Table.

4. Sources paying annual emissions fees on a mixed emissions basis: for all pollutants and all sources for which the permittee has chosen an actual emissions basis, prepare an actual emissions analysis for each AAP and pay actual based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d). The actual emissions analysis shall include:
   - the completed Fee Emissions Summary Table,
   - each actual emissions analysis required, and
   - the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary’s representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the
Calculations. These calculations must be based on the fee bases approved by the Technical Secretary (payment on an actual or mixed emissions basis) and payment on a state fiscal year (July 1 through June 30) or a calendar year (January 1 through December 31). These records shall be used to complete the actual emissions analysis.

For all pollutants and all sources for which the permittee has chosen an allowable emissions basis, pay allowable based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d).

(5) When paying on an actual or mixed emissions basis, submit the actual emissions analyses at the time the fees are paid in full.

The annual emission fee due dates are specified in TAPCR 1200-03-26-.02(9)(g) and are dependent on the Responsible Official’s choice of fee bases as described above. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in Condition A8(d) of this permit.

Payment of the fee due and the actual emissions analysis (if required) shall be submitted to The Technical Secretary at the following address:

Payment of Fee to: The Tennessee Department of Environment and Conservation
Division of Fiscal Services
Consolidated Fee Section – APC
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 10th Floor
Nashville, Tennessee 37243

Actual Emissions Analyses to: The Tennessee Department of Environment and Conservation
Division of Air Pollution Control
Emission Inventory Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243

An electronic copy (PDF) of actual emissions analysis can also be submitted to: apc.inventory@tn.gov

E2(SM1).

Reporting requirements.

(a) Semiannual reports. Semiannual reports shall cover the six-month periods from October 1 to March 31 and April 1 to September 30 and shall be submitted within 60 days after the end of each six-month period. Subsequent reports shall be submitted within 60 days after the end of each 6-month period following the first report. The first semiannual report following issuance of this permit shall cover the following permits and reporting periods:

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Reporting Period Begins</th>
<th>Reporting Period Ends</th>
</tr>
</thead>
<tbody>
<tr>
<td>567725</td>
<td>April 1, 2020</td>
<td>May 28, 2020</td>
</tr>
<tr>
<td>575853</td>
<td>May 29, 2020</td>
<td>September 30, 2020</td>
</tr>
</tbody>
</table>

These semiannual reports shall include:

(1) Any monitoring and recordkeeping required by conditions E4-6, E4-13, E4-14, E4-15, E4-17, E4-18, E4-19, E4-20, E4-22, E4-27, E5-2, E5-3, E5-9, E6-1, E7-2, E7-3, E7-6, E7-8, E7-15, E8-1, E9-2, E9-5, E9-8, E9-14, E9-20, E9-26, E10-3, E10-9, E10-10, E10-11, E11-3, E11-11, E15-1, E16-1, E18-7, E18-8, E19-8, E19-9, E20-1(SM1), and E20-2(SM1) of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) The visible emission evaluation readings from condition E3-1, E4-16, E7-4, E7-5, E8-3, E9-16, E9-28, E10-8, E11-13, and E20-5(SM1) of this permit if required. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(3) Identification of all instances of deviations from ALL PERMIT REQUIREMENTS.

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(SM1)(b) of this permit.

TAPCR 1200-03-09-.02(11)(e)(ii)

(b) Annual compliance certification. The permittee shall submit annually compliance certifications with each term or condition contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work...
practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(1) The identification of each term or condition of the permit that is the basis of the certification;

(2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; Such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(3) The status of compliance with each term or condition of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in E2(SM1)(b)2 above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** occurred; and

(4) Such other facts as the Technical Secretary may require to determine the compliance status of the source, including the annual compliance certifications required by condition E3-13, E17-2, E18-2, and E19-2 of this permit.

* “Excursion” shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** “Exceedance” shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

Annual compliance certifications shall cover the 12-month period from October 1 to September 30 and shall be submitted within 60 days after the end of each 12-month period. The first annual compliance certification following issuance of this permit shall cover the following permits and reporting periods:

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Reporting Period Begins</th>
<th>Reporting Period Ends</th>
</tr>
</thead>
<tbody>
<tr>
<td>567725</td>
<td>October 1, 2019</td>
<td>May 28, 2020</td>
</tr>
<tr>
<td>575853</td>
<td>May 29, 2020</td>
<td>September 30, 2020</td>
</tr>
</tbody>
</table>

These certifications shall be submitted to: **TN APCD** and **EPA**

Division of Air Pollution Control and Air Enforcement Branch
NASHVILLE ENVIRONMENTAL FIELD OFFICE and US EPA Region IV
711 R. S. GASS BOULEVARD 61 Forsyth Street, SW
NASHVILLE TN 37216 Atlanta, Georgia 30303
or APC.NashEFO@tn.gov

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667 TAPCR 1200-03-09-.02(11)(e)3.(v)

(c) **Retention of Records** All records required by any condition in Section E of this permit must be retained for a period of not less than five years. Additionally, these records shall be kept available for inspection by the Technical Secretary or a Division representative.

TAPCR 1200-03-09-.02(11)(e)1.(iii)(ID)II
E3. General Permit Requirements

E3-1. Visible emissions from stacks at this facility (not addressed in the source specific sections) shall not exhibit greater than twenty percent opacity, except for one six-minute period in any one hour period, and for no more than four six-minute periods in any twenty-four hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E3-2. The source(s) controlled by the air pollution control device(s) shall not operate unless the control device(s) is in operation, except as noted below. In the event a malfunction/failure of a control device(s) occurs, the operation of the process(es) controlled by the control device(s) shall be regulated by the provisions of Chapter 1200-03-20 of the Tennessee Air Pollution Control Regulations. The source(s) controlled by the air pollution control device(s) may continue to operate when the control device(s) is not operating subject to the following requirements. The affected stack(s) shall be blanked off during the time the control device(s) is not operational to assure that excess emissions are not occurring. The control device(s) shall be repaired promptly. A visible emissions evaluation (VEE) shall be conducted on the stack(s) during the period the control device(s) is not functioning. All VEE’s shall be conducted in accordance with EPA Method 9 and shall be conducted only when there is sufficient daylight to make such determinations. The permittee shall record each instance when the control device(s) is not in operation while the source is still operating. The records shall include the date and duration that the control device(s) is not in operation, an explanation of the repairs, and the VEE results.

TAPCR 1200-03-09-.03(8)

E3-3. Routine maintenance as required to comply with the specified emission limits shall be performed on the air pollution control devices. Monthly logs of maintenance and/or repair for each air pollution control device shall be kept. This includes, but is not limited to, baghouses, electrostatic precipitators, scrubbers, cyclones, and other air pollution control devices. The logs shall denote what maintenance and what repair was done, when it was done, by whom, and when problems were rectified denoting date accomplished. Use of computer-generated logs are also acceptable. Each maintenance/repair log must be made available upon request by the Technical Secretary or a Division representative. Such logs must be maintained for 5 years. Records from these logs are not required to be submitted semiannually unless required in Condition E2(SM1)(a)(1) or under MACT specified in this permit.

TAPCR 1200-03-09-.03(8) and TAPCR 1200-03-10-.02(2)

E3-4. Logs and records specified in this permit shall be made available upon request by the Technical Secretary or a Division representative and shall be retained for a period of not less than five years unless otherwise noted. Logs and records contained in this permit may be based on a recommended format. Any logs that have an alternative format may be utilized provided such logs contain the same information that is required. Computer-generated logs are also acceptable. Logs and records are not required to be submitted semiannually unless specified in Condition E2(MM1)(a)(1). TAPCR 1200-03-10-.02(2)

E3-5. Retention of Records All records required by any condition in Section E of this permit must be retained for a period of not less than five years. Additionally, these records shall be kept available for inspection by the Technical Secretary or a Division representative. All yearly data, including all required calculations, must be entered in the log(s) no later than thirty days from the end of the year for which the data is required. All monthly data, including all required calculations, must be entered in the log(s) no later than thirty days from the end of the month for which the data is required. All daily data, including all required calculations, must be entered in the log(s) no later than seven days from the end of the day for which the data is required.

E3-6. The permittee is not required to file an accidental release plan pursuant to Section 112(r) of the Clean Air Act and 1200-03-32 of TAPCR.

E3-7. Pursuant to 1200-03-10-.04(2)(a)2. of TAPCR, gauges, indicators, and similar devices used to measure and conduct parametric monitoring of control equipment must maintain an operational availability of at least 95%. Logs and records to substantiate such operational availability must be kept and such records shall be made available to the Technical Secretary or a Division representative upon request. The 95% operational availability is based on a six-month period of time (except as noted in Condition E4-21) corresponding with the semiannual report periods. The availability is also based on when the source is operating.
E3-8. **Reporting required by TAPCR Chapter 18.** The permittee shall comply with the applicable reporting and recordkeeping requirements specified in TAPCR 1200-03-18-.02(8). The permittee shall submit to the Technical Secretary a summary report of the calendar year VOC emissions. This information shall be submitted before March 31 of the year following the calendar year for which the information and data are reported. Each report shall be signed by the permittee certifying that the information and data contained in the report are accurate to the best knowledge of the individual certifying the report.

E3-9. **Reporting required by TAPCR Chapter 27.** The permittee shall comply with the applicable reporting and recordkeeping requirements specified in TAPCR 1200-03-27-.02(6). The permittee shall submit to the Technical Secretary a summary report of the calendar year NOx emissions. This information shall be submitted before March 31 of the year following the calendar year for which the information and data are reported. Each report shall be signed by the permittee certifying that the information and data contained in the report are accurate to the best knowledge of the individual certifying the report.

E3-10. Throughout the permit, the following phrases are used: “monthly average…” and “…during all intervals of twelve consecutive months”. In the case of “monthly average”, the phrase is referring to a calendar month. In the case of “…during all intervals of twelve consecutive months”, the phrase is referring to all intervals of twelve consecutive calendar months.

TAPCR 1200-03-09-.03(8)

E3-11(AA1). The permittee is subject to the National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities (40 CFR Part 63, Subpart YYYYY).

40 CFR Part 63, Subpart YYYYY and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall assure compliance by meeting the requirements of Conditions E3-12 through E3-22.

E3-12. For the production of steel other than leaded steel, the permittee shall prepare and implement a pollution prevention plan for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquids that is charged to the furnace.

40 CFR §63.10685(a)(1) and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall assure compliance by implementing the pollution prevention plan, dated August 2008, submitted by the permittee. The permittee shall maintain a copy of the pollution prevention plan, dated August 2008, at the source location.

E3-13(AA1). The permittee shall not charge to a furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, lead-containing components, chlorinated plastics, or free organic liquids.

40 CFR §63.10685(a)(2) and TAPCR 1200-03-09-.03(8)

**Compliance Method:** Compliance with this limitation shall be assured by means of the annual certification requirements found in Condition E2(MM1)(b). Certifications shall be submitted in accordance with Condition E2(MM1)(b) of Title V Operating Permit Number 575853. TAPCR 1200-03-10-.04(2)

E3-14. For scrap containing motor vehicle scrap, the permittee shall procure the scrap pursuant to one of the compliance options in paragraphs (b)(1), (2), or (3) of 40 CFR §63.10685 for each scrap provider, contract, or shipment. The permittee shall identify which compliance option in paragraph (b) of 40 CFR §63.10685 applies to each scrap provider, contract, or shipment.

40 CFR §63.10685(b), TAPCR 1200-03-10-.02(2), and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall assure compliance by maintaining the records required by 40 CFR §63.10685(c).

E3-15. For scrap that does not contain motor vehicle scrap, the permittee shall procure the scrap pursuant to the requirements in paragraph (b)(4) of 40 CFR §63.10685 for each scrap provider, contract, or shipment.

**Compliance Method:** The permittee shall assure compliance by maintaining records of documentation that this scrap does not contain motor vehicle scrap.

TAPCR 1200-03-09-.03(8) and TAPCR 1200-03-10-.02(2)
E3-16. The permittee shall participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator. If motor vehicle scrap is purchased from a broker, the permittee shall certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator.

40 CFR §63.10685(b)(2) and (c)(2) and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall assure compliance by maintaining records identifying each scrap provider and documenting the scrap provider’s participation in an approved mercury switch removal program. If motor vehicle scrap is purchased from a broker, the permittee shall maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator. TAPCR 1200-03-10-.02(2)

E3-17. The permittee shall prepare and implement a plan demonstrating the manner through which the facility is participating in a program for removal of mercury switches that has been approved by the Administrator.

40 CFR §63.10685(b)(2)(iv) and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall assure compliance by implementing the pollution prevention plan, dated August 2008, submitted by the permittee. The permittee shall maintain a copy of the pollution prevention plan, dated August 2008, at the source location.

E3-18. The permittee shall install, operate, and maintain a capture system that collects the emissions from each EAF (including charging, melting, and tapping operations) and conveys the collected emissions to a control device for the removal of particulate matter (PM).

40 CFR §63.10686(a) and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall demonstrate compliance by assuring compliance with Conditions E3-2 and E3-3.

E3-19. The permittee shall not discharge into the atmosphere from an EAF any gases which exit from a control device and contain in excess of 0.0052 grains of PM per dry standard cubic foot (gr/dscf).

40 CFR §63.10686(b) and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall demonstrate compliance by assuring compliance with Condition E4-6.

E3-20. The permittee shall not discharge into the atmosphere from an EAF any gases which exit from a melt shop and, due solely to the operations of any affected EAF(s) or AOD vessel(s), exhibit 6 percent opacity or greater.

40 CFR §63.10686(b) and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall demonstrate compliance by assuring compliance with Condition E4-16(c).

E3-21. The permittee shall comply with the performance test requirements in 40 CFR §63.10686(d).

40 CFR §63.10686(d) and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee assured compliance pursuant to 40 CFR §63.10686(d)(6) by conducting a performance test on September 15-16, 2005, which showed compliance with the emission standards.

E3-22. The permittee shall monitor the capture system and PM control device required by 40 CFR Part 63, Subpart YYYY, maintain records, and submit reports according to the compliance assurance monitoring requirements in 40 CFR part 64.

40 CFR §63.10686(e), TAPCR 1200-03-10-.02(2), and TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall demonstrate compliance by assuring compliance with Condition E4-27.
E3-23. Identification of Responsible Official, Technical Contact, and Billing Contact

a) The application that was utilized in the preparation of this permit is dated December 7, 2018, and signed by Paul A. Hoffmann, PM Manager, Environment and Energy of the permitted facility. The letter dated December 12, 2019 names Mr. Robert Kuhle, Vice President of Operations as Responsible Official of the permitted facility. If this person terminates his/her employment or is assigned different duties such that he/she is no longer a Responsible Official for this facility as defined in part 1200-03-09-.02(11)(b)(21) of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.

b) The operating permit application dated December 7, 2018 identifies Sean Keene as the Principal Technical Contact for the permitted facility. If this person terminates his/her employment or is assigned different duties such that he/she is no longer the Principal Technical Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.

c) The operating permit application dated December 7, 2018 identifies Sean Keene as the Billing Contact for the permitted facility. If this person terminates his/her employment or is assigned different duties such that he/she is no longer the Billing Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

E3-24. Insignificant activities

Insignificant activities as stated by the permittee in the Title V Application per Rule 1200-03-09-.04(5) are listed below. Additional insignificant activities may be added and operated at any time with the provision that a written notification shall be submitted to the Technical Secretary including an updated APC V.2 application form along with a truth, accuracy, and completeness statement signed by a responsible official. The permit may be updated to include additional insignificant sources by means of an administrative amendment, if necessary.

<table>
<thead>
<tr>
<th>Activity</th>
<th>ESRN</th>
<th>Exempt Under Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lime Storage Tank</td>
<td>N/A</td>
<td>1200-03-09-.04(5)(a)(i)</td>
</tr>
<tr>
<td>Liquid Hydrogen Storage</td>
<td>N/A</td>
<td>1200-03-09-.04(5)(a)(i)</td>
</tr>
<tr>
<td>Liquid Oxygen Storage</td>
<td>N/A</td>
<td>1200-03-09-.04(5)(a)(i)</td>
</tr>
<tr>
<td>Scrap Steel Pile</td>
<td>N/A</td>
<td>1200-03-09-.04(5)(a)(i)</td>
</tr>
<tr>
<td>Propane Storage Tank</td>
<td>N/A</td>
<td>1200-03-09-.04(5)(f)(43)</td>
</tr>
<tr>
<td>Liquid Nitrogen Storage</td>
<td>N/A</td>
<td>1200-03-09-.04(5)(a)(i)</td>
</tr>
<tr>
<td>Oil Storage Tank</td>
<td>N/A</td>
<td>1200-03-09-.04(5)(a)(i)</td>
</tr>
<tr>
<td>Five Iron Storage Bins</td>
<td>N/A</td>
<td>1200-03-09-.04(4)(d)(8)</td>
</tr>
<tr>
<td>6,000 Gallon Argon Storage Tank</td>
<td>N/A</td>
<td>1200-03-09-.04(5)(g)(20)</td>
</tr>
</tbody>
</table>
**Permit Number 575853 PROPOSED Significant Modification 1**  
**Title V Operating Permit**  
Expiration Date: May 28, 2025

<table>
<thead>
<tr>
<th><strong>Condition</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E4-1(AA1)</strong></td>
<td>The liquid steel production rate for the electric arc furnace shall not exceed 76.5 tons per hour and 441,600 tons per all intervals of twelve consecutive months.</td>
</tr>
<tr>
<td><strong>TAPCR 1200-03-10-.02(2)</strong></td>
<td><strong>Compliance Method:</strong> The permittee shall assure compliance with this condition by maintaining a log of information as specified in Condition E4-15(AA1).</td>
</tr>
</tbody>
</table>

**E4-2(AA1)** Total heat input capacity of all fossil fuel fired equipment used in the melt shop (excluding the EAF burners) shall not exceed 36.0 million Btu per hour.

| **TAPCR 1200-03-10-.02(2)** | **Compliance Method:** Compliance with this condition is assured by maintaining the manufacturer specification documents for all fossil fuel fired equipment as proof of the heat input capacity. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. |

**E4-3(AA1)** Carbon monoxide (CO) emitted from the electric arc furnace operations shall not exceed 5.0 pounds of CO per ton of steel produced.

| **TAPCR 1200-03-09-.01(4)** and the information contained in the PSD permit application dated November 25, 2002. | **Compliance Method:** Compliance with this condition is assured by stack testing. |

**E4-4(AA1)** The total quantity of No. 2 fuel oil used for this source shall not exceed 263,000 gallons during all intervals of twelve consecutive months.

| **TAPCR 1200-03-10-.02(2)** | **Compliance Method:** The permittee shall assure compliance with this condition by maintaining a log of information as specified in Condition E4-13(AA1). |

**E4-5(AA1)** Operating time for this source shall not exceed 8,000 hours during all intervals of twelve consecutive months.

| **TAPCR 1200-03-09-.01(4)**, the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee. | **Compliance Method:** The permittee shall assure compliance with sections this condition by maintaining a log of information as specified in Condition E4-15(AA1). |

**E4-6(AA1)** Particulate matter emitted from the electric arc furnace control device designated EP-1B (large baghouse) shall not exceed 0.0032 grains per dry standard cubic foot (9.05 pounds per hour). Particulate matter emitted from the electric arc furnace control device designated EP-1 (small baghouse) shall not exceed 0.0052 grains per dry standard cubic foot (4.15 pounds per hour). (13.2 pounds per hour total).

| **TAPCR 1200-03-09-.01(4)** and the information contained in the PSD permit application dated November 25, 2002 from the permittee. The 0.0052 gr/dscf limit is also required by 40 CFR §63.10686(b)(1) and TAPCR 1200-03-09-.03(8). | **Compliance Method:** The permittee shall assure compliance with the particulate matter emission limitation by visible emission monitoring and baghouse pressure drop measurements as follows:

(a) The permittee shall assure compliance with the particulate matter emission limitation by continuously monitoring opacity. Five consecutive 6-minute periods that exhibit three percent opacity or greater shall be considered a deviation. **Condition E4-27(AA1)** summarizes the CAM plan. The entire CAM plan is contained in Attachment 3.

(b) The permittee shall assure compliance with the particulate matter emission limitation by keeping the pressure drop across the baghouse equal to or above the values listed in the table below:
The pressure drop for each baghouse shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted. TAPCR 1200-03-10-.02(2)

For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

E4-7(AA1). Particulate matter emitted from the melt shop burners (EAF burners not included) at this source shall not exceed 0.46 pounds per hour and 1.18 tons per all intervals of twelve consecutive months. Fugitive particulate matter emitted from this source shall not exceed 1.07 pounds per hour and 3.09 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-09-.01(4), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

Compliance Method: The potential to emit particulate matter from the melt shop burners (EAF burners not included) is less than five tons per year. In accordance with TAPCR 1200-03-09-.04(5)(c)3, and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually a compliance certification for particulate matter from the melt shop burners (EAF burners not included).

E4-8(AA1). Carbon monoxide (CO) emitted from the electric arc furnace shall not exceed 383.0 pounds per hour and 1104.0 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-09-.01(4), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

Compliance Method: Compliance with this condition is assured by stack testing as required by Condition E4-23(AA1). Stack testing must be conducted at least once every five years. Following stack testing, for compliance assurance a source-specific emission factor may be used to determine the hourly emissions as a daily average, i.e., divide the daily (11:00 pm to 11:00 pm) CO emissions by the daily (11:00 pm to 11:00 pm) operating hours.

E4-9(AA1). Carbon monoxide (CO) emitted from all processes other than the electric arc furnace at this source shall not exceed 3.02 pounds per hour and 12.1 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-09-.01(4), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

Compliance Method: Compliance is assured using the design heat input capacity and the AP-42 emission factors for combustion of 84 pounds per million cubic feet of natural gas and 5 pounds per 1000 gallons of fuel oil, as well as the records required by Condition E4-15(AA1). If requested by the Technical Secretary, the hourly emissions rate may be determined as a daily average, i.e., divide the daily (11:00 pm to 11:00 pm) emissions by the daily (11:00 pm to 11:00 pm) operating hours.

E4-10(AA1). Sulfur dioxide (SO\textsubscript{2}) emitted from this source (83-0129-01) shall not exceed 12.6 pounds per hour and 20.2 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-14-.01(5), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

Compliance Method: The permittee shall assure compliance as specified in Condition E4-24(AA1).

E4-11(AA1). Volatile organic compounds (VOC) emitted from this source (83-0129-01) shall not exceed 0.35 pound per hour and 1.2 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.01(7), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

Compliance Method: The permittee shall assure compliance as specified in Condition E4-24(AA1).
E4-12(AA1). Nitrogen oxides (NO\textsubscript{X}) emitted from this source (83-0129-01) shall not exceed 0.2 pounds per ton of steel produced, 18.5 pounds per hour and 57.1 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-09-.01(4), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** Compliance with this condition is assured by stack testing as required by Condition E4-23(AA1) and the emission factors specified in Condition E4-24(AA1). Stack testing for NO\textsubscript{X} must be conducted at least once every five years. Following stack testing, for compliance assurance a source-specific emission factor may be used to determine the hourly emissions as a daily average, i.e., divide the daily (11:00 pm to 11:00 pm) NO\textsubscript{X} emissions by the daily (11:00 pm to 11:00 pm) operating hours.

E4-13(AA1). Only natural gas, propane and No. 2 fuel oil shall be used as fuels for the fossil fuel fired equipment used for this source.

**Compliance Method:** The permittee shall demonstrate compliance by keeping a record of the types of fuels used each month and the monthly fuel usage at this source.

### Types of Fuels Used and No. 2 Fuel Oil Usage

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Type of Fuel Used</th>
<th>No. 2 Fuel Oil Usage (gallons)</th>
<th>No. 2 Fuel Oil Usage (gallons/12 consecutive months)</th>
<th>Month</th>
<th>Type of Fuel Used</th>
<th>No. 2 Fuel Oil Usage (gallons)</th>
<th>No. 2 Fuel Oil Usage (gallons/12 consecutive months)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td>July</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td>August</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>March</td>
<td></td>
<td></td>
<td></td>
<td>September</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>April</td>
<td></td>
<td></td>
<td></td>
<td>October</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>May</td>
<td></td>
<td></td>
<td></td>
<td>November</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>June</td>
<td></td>
<td></td>
<td></td>
<td>December</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Gallons per 12 consecutive month value is the sum of the Fuel Usage (in gallons) in the 11 months preceding the month just completed + the Fuel Usage (in gallons) in the month just completed. If data is not available for the 11 months preceding the initial use of this table, this value will be equal to the value for “Fuel Usage”.

TAPCR 1200-03-10-.02(2)

E4-14(AA1). The sulfur content of the No. 2 fuel oil shall not exceed 0.25 percent by weight.

**Compliance Method:** The permittee shall assure compliance by obtaining a written statement by the vendor, on an annual basis, guaranteeing in advance that these limits will not be exceeded or a sulfur content analysis for each shipment of fuel oil shall be provided.

E4-15(AA1). The permittee shall demonstrate compliance with the steel production limits in Condition E4-1(AA1) and the operating hours limit in Condition E4-5(AA1) by the records required by this condition. The permittee shall maintain logs of the daily and monthly steel production and operating hours. The hourly steel production rate may be determined as a daily average, i.e., divide the daily production rate by the daily (11:00 pm to 11:00 pm) operating hours. TAPCR 1200-03-10-.02(2)

### Daily Average Steel Production

<table>
<thead>
<tr>
<th>Date</th>
<th>Steel Production (tons)</th>
<th>Operating Hours (hours)</th>
<th>Daily Average Steel Production (ton/hr)</th>
<th>Date</th>
<th>Steel Production (tons)</th>
<th>Operating Hours (hours)</th>
<th>Daily Average Steel Production (ton/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>17</td>
<td></td>
<td></td>
<td>17</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td></td>
<td></td>
<td>19</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td></td>
<td></td>
<td>20</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>21</td>
<td></td>
<td></td>
<td>21</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>22</td>
<td></td>
<td></td>
<td>22</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>23</td>
<td></td>
<td></td>
<td>23</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>24</td>
<td></td>
<td></td>
<td>24</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>25</td>
<td></td>
<td></td>
<td>25</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>26</td>
<td></td>
<td></td>
<td>26</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>27</td>
<td></td>
<td></td>
<td>27</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>28</td>
<td></td>
<td></td>
<td>28</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>29</td>
<td></td>
<td></td>
<td>29</td>
<td>29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following equation shall be used to calculate the Daily Average Steel Production:

\[
Daily \ Average \ Steel \ Production \ (\text{ton/hr}) = \frac{Steel \ Production \ (\text{ton/day})}{Operating \ Hours \ (\text{hours/day})}
\]

Steel Production and Operating Hours

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Total Steel Production (tons)</th>
<th>Total Steel Production (tons/12 consecutive months)</th>
<th>Operating Hours (hours)</th>
<th>Operating Hours (hours/12 consecutive months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Tons per 12 consecutive month value is the sum of the Steel Production (in tons) in the 11 months preceding the month just completed + the Steel Production (in tons) in the month just completed.

E4-16(AA1). Visible emissions from this source (83-0129-01) shall not exceed the following:

(a) Exhaust gases emitted to the atmosphere from the dust-handling system associated with the EAF shall not exhibit ten percent opacity or greater. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6-minute average). 40 CFR §60.272a(b).

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

(b) Exhaust gases emitted from the electric arc furnace control device shall not exhibit three percent or greater opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6-minute average). 40 CFR §60.272a(a)(2).

**Compliance Method:** The permittee shall assure compliance with the opacity standard by the continuous monitoring system required by **Condition E4-17(AA1)**.

(c) Exhaust gases emitted from the steel melt shop and which are due solely to the operation of the EAF shall not exhibit six percent or greater opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6-minute average). 40 CFR §60.272a(a)(3) and 40 CFR §63.10686(b)(2).

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

(d) Visible emissions from this source not included in (a), (b), or (c) above shall not exhibit greater than twenty percent opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6-minute average). TAPCR 1200-3-5-.03(6) and TAPCR 1200-3-5-.01(1).

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E4-17(AA1). Emission monitoring

(a) Except as provided under sections (b) of this condition, a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) shall be installed, calibrated, maintained, and operated by the permittee subject to the provisions of 40 CFR 60, Subpart A.Aa.

(b) No continuous monitoring system shall be required on any control device serving the dust-handling system.

(c) This facility is not subject to 40 CFR 60.273a(c)

(d) A furnace static pressure monitoring device is not required on any EAF equipped with a DEC (direct-shell evacuation control) system if observations of shop opacity are performed by a certified visible emission observer as follows: Shop opacity
observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.

40 CFR §60.273a

E4-18(AA1). Monitoring of operations

(a) The permittee subject to the provisions of 40 CFR 60 Subpart AAa shall maintain records of the following information according to Condition E4-15(AA1):

(1) All data obtained under Condition E4-18(AA1)(b); and

(2) All monthly operational status inspections performed under Condition E4-18(AA1)(d).

(b) Except as provided under Condition E4-18(e), the permittee subject to the provisions of Subpart AAa shall check and record on a once-per-shift basis the furnace static pressure (if DEC system is in use, and a furnace static pressure gauge is installed according to Condition E4-18(f)) and either: check and record the control system fan motor amperes and damper position on a once-per-shift basis; install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once-per-shift basis. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ±10 percent over its normal operating range and shall be calibrated according to the manufacturer’s instructions. The Technical Secretary may require the permittee to demonstrate the accuracy of the monitoring device(s) relative to Methods 1 and 2 of Appendix A of 40 CFR 60.

(c) This facility shall comply with 40 CFR 60.274a(c).

(d) Except as provided under Condition E4-18(AA1)(e), the permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (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 duct-work or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

(e) The permittee may petition the Technical Secretary to approve any alternative to either the monitoring requirements specified in Condition E4-18(AA1)(b) or the monthly operational status inspections specified in Condition E4-18(AA1)(d) if the alternative will provide a continuous record of the operation of each emission capture system.

(f) Except as provided for under Condition E4-17(AA1)(d), if emissions during any phase of the heat time are controlled by the use of a DEC system, the permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer’s instructions.

(g) Except as provided for under Condition E4-17(AA1)(d), when the owner or operator of an EAF controlled by a DEC is required to demonstrate compliance with the standard under Condition E4-16(AA1)(e), and at any other time the Technical Secretary may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the meltdown and refining period(s) using the monitoring device required under Condition E4-18(AA1)(f). The permittee may petition the Technical Secretary for re-establishment of the pressure whenever the permittee can demonstrate to the Technical Secretary’s satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Technical Secretary to be unacceptable operation and maintenance of the affected facility.

(h) During any performance test required under 40 CFR § 60.8, and for any report thereof required by 40 CFR § 60.276a(f), or to determine compliance with Condition E4-16(AA1)(c), the permittee shall monitor the following information for all heats covered by the test:

(1) Charge weights and materials, and tap weights and materials;

(2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and the pressure inside an EAF when direct-shell evacuation control systems are used;
(3) Control device operation log; and
(4) Continuous opacity monitor or Method 9 data.

40 CFR §60.274a and TAPCR 1200-03-09-.03(8)

**E4-19(AA1). Recordkeeping and reporting requirements**

(a) Records of the measurements required in **Condition E4-18(AA1)** must be retained for at least five years following the date of the measurement.

(b) The permittee shall submit a written report of exceedances of the control device opacity to the Technical Secretary semi-annually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is three percent or greater.

(c) Operation at a furnace static pressure that exceeds the value established under **Condition E4-18(AA1)(g)** and either operation of control system fan motor amperes at values exceeding ±15 percent of the value established under **Condition E4-18(AA1)(c)** or operation at flow rates lower than those established under **Condition E4-18(AA1)(c)** may be considered by the Technical Secretary to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Technical Secretary semiannually.

(d) The requirements of this section remain in force until and unless EPA, in delegating enforcement authority to the State of Tennessee under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by the State of Tennessee. In that event, affected sources within the State of Tennessee will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State of Tennessee.

(e) When the owner or operator of an EAF is required to demonstrate compliance with the standard under 40 CFR § 60.275a (b)(2) or a combination of (b)(1) and (b)(2) the permittee shall obtain approval from the Technical Secretary of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used must be postmarked at least 30 days prior to the performance test.

(f) For the purpose of 40 CFR 60, Subpart AAa, the permittee shall conduct the demonstration of compliance with **Conditions E4-6(AA1), E4-16(AA1)(b), and E4-16(AA1)(c)** of this permit and furnish the Technical Secretary a written report of the results of the test. This report shall include the information listed under 40 CFR §60.276a(f).

(g) The permittee shall maintain records of all shop opacity observations made in accordance with **Condition E4-17(AA1)(d)**. All shop opacity observations in excess of the emission limit specified in **Condition E4-16(AA1)(c)** of this permit shall indicate a period of excess emission, and shall be reported to the Technical Secretary semi-annually, according to 40 CFR § 60.7(c).

40 CFR §60.276a, TAPCR 1200-03-10-.02(2), and TAPCR 1200-03-09-.03(8)

**E4-20(AA1). Quality Assurance Condition for the Opacity Monitoring System**

Quality assurance checks shall be performed on the opacity monitoring system on a biennial calendar basis. Each quality assurance check shall include, at a minimum, a repeat of the calibration error portion of the performance specification test. Written reports of the quality assurance checks shall be submitted in a format prescribed by the Technical Secretary.

As an alternative to this, an on-stack quality assurance audit may be conducted on a semiannual basis. If elected, this on-stack quality assurance audit shall be conducted in a manner prescribed by the Technical Secretary, and written reports of the audits shall be submitted to the Technical Secretary. Prior to the commencing of the use of the semiannual audit, the Technical Secretary shall be informed in writing of the election of this option. Within ninety days of each major modification or major repair of any opacity monitor, a repeat of the performance specification test shall be conducted, and a written report of it submitted to the Technical Secretary as proof of the continuous operation of the opacity monitoring system within acceptable accuracy limits.

Within ninety days of each major modification or major repair of any opacity monitor or the electronic signal combining system, a repeat of the performance specification test shall be conducted, and a written report of it submitted to the Technical Secretary as proof of continuous operation of the opacity monitoring system within acceptable limits.

TAPCR 1200-03-10-.02(1)(a)

**E4-21(AA1). Operational Availability Condition for the Opacity Monitoring System**

The use of continuous in-stack monitoring for opacity is one of the methods by which this source demonstrates continual compliance with the applicable visible emission limitation. Therefore, for this source to demonstrate continual compliance with the applicable visible emission limitation, each in-stack opacity monitoring system shall be fully operational for at least ninety-five percent of the operation time of the source during each month of the calendar quarter. An operational availability of less than this amount may be considered the basis for declaring the source in noncompliance with the applicable monitoring requirements,
unless the reasons for the failure to maintain this level of operational availability are accepted by the Division as being legitimate malfunctions of the instruments. In the event of a disparity between the instrument’s reading versus that of a qualified visible emission evaluator, the Technical Secretary may require the source to conduct any necessary testing or investigations needed to resolve the disparity.

TAPCR 1200-03-10-.02(1)(a)

E4-22(AA1). From the emissions data generated by the continuous in-stack opacity monitoring systems, semiannual reports of excess opacity emissions shall be generated. The format of these semiannual reports shall meet the requirements of TAPCR 1200-03-16-.01(7)(c). These reports shall be submitted to the Division as specified in Condition E2(MM1)(a).

TAPCR 1200-03-10-.02(2)

E4-23(AA1). This source (83-0129-01) must conduct a performance test for carbon monoxide and nitrogen oxides and submit a written report of the results at least once every five years. The performance test(s) shall be conducted and data reduced in accordance with methods and procedures specified in Appendix A to Part 60 of the Code of Federal Regulations. The Technical Secretary shall be notified at least thirty days prior to the conducting of such testing so that an official observer may be present.

TAPCR 1200-03-09-.03(8)

E4-24(AA1). The permittee shall demonstrate compliance with the hourly $SO_2$, VOC, and $NO_X$ emissions limitations in Conditions E4-10(AA1), E4-11(AA1), and E4-12(AA1), respectively, by demonstrating compliance with the hourly production limitation in Condition E4-1(AA1), the heat input limitation in Condition E4-2(AA1), the fuel type limitation in Condition E4-13(AA1), and the sulfur content limitation in Condition E4-14(AA1). The permittee shall demonstrate compliance with the yearly $SO_2$, VOC, and $NO_X$ emissions limitations in Conditions E4-10(AA1), E4-11(AA1), and E4-12(AA1), respectively, by assuring compliance with the tons per twelve consecutive months production limitation in Condition E4-1(AA1), the heat input limitation in Condition E4-2(AA1), the No.2 fuel oil limitation in Condition E4-4(AA1), and the hours of operation limitation in Condition E4-5(AA1). Compliance assurance is also based on the use of the emission factors listed below for the EAF and combustion of fuel. The emission factors listed below are not enforceable limitations.

TAPCR 1200-03-10-.02(2)

The following emission factors were used to calculate emissions from the EAF:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb emitted/ton of steel produced)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$SO_2$</td>
<td>0.07</td>
</tr>
<tr>
<td>VOC</td>
<td>0.002</td>
</tr>
<tr>
<td>$NO_X$</td>
<td>0.14*</td>
</tr>
</tbody>
</table>

* Based on performance test, July 20-21, 2005. The NOx emission factor may be adjusted based on more recent testing.

The following emission factors were used to calculate emissions from combustion:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor for No. 2 fuel oil</th>
<th>Emission Factor for natural gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>$SO_2$</td>
<td>35.5 lb/1000 gallons</td>
<td>0.6 lb/10^6 ft^3</td>
</tr>
<tr>
<td>VOC</td>
<td>0.2 lb/1000 gallons</td>
<td>5.5 lb/10^6 ft^3</td>
</tr>
<tr>
<td>$NO_X$</td>
<td>0.09 lb/MMBtu</td>
<td>0.09 lb/MMBtu</td>
</tr>
</tbody>
</table>

E4-25(AA1). The permittee shall provide sampling ports and a suitable platform for the conducting of source emissions testing on the effluent gas stream of the source.

TAPCR 1200-03-10-.01

E4-26(AA1). Lead emitted from this source (83-0129-01) shall not exceed 0.6 tons during all intervals of twelve consecutive months. The Technical Secretary shall be notified within thirty days of emitting 0.5 tons of lead during all intervals of twelve consecutive months so that air monitoring can be arranged.

TAPCR 1200-03-9-.01(4), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

Compliance Method: Compliance is assured by maintaining the baghouse minimum pressure drop as required by Condition E4-6(AA1), and the emission factor of 0.237% of lead in the particulate matter emissions obtained from analysis of baghouse dust. The Technical Secretary shall be notified within thirty days of emitting 0.5 TYP of lead so that air monitoring can be arranged.
**PM Monitoring Approach for Large Baghouse (EP-1B) and Small Baghouse (EP-1)**

<table>
<thead>
<tr>
<th>I. A. Indicator</th>
<th>Indicator 1</th>
<th>Indicator 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opacity</td>
<td></td>
<td>Inspection</td>
</tr>
<tr>
<td>I. B. Measurement Approach</td>
<td>Continuous opacity monitor</td>
<td>Maintenance inspections performed minimum of once per calendar quarter</td>
</tr>
</tbody>
</table>

**II. Indicator Range**

The permittee shall assure compliance with the particulate matter emission limitation by continuously monitoring opacity. Five consecutive 6-minute periods that exhibit three percent (3.0%) opacity or greater shall be considered a deviation. The permittee shall inspect the baghouse within 24 hours when a deviation occurs. Baghouse repairs shall be made in a timely manner.

The permittee shall conduct maintenance inspections on the baghouses once per calendar quarter. The permittee shall conduct maintenance as necessary.

**III. Performance Criteria**

| III. A. Data Representativeness | The opacity monitor is located at the baghouse outlet. The system has a minimum accuracy of 2% over the range of the monitor. | N.A. |
| III. B. Verification of Operational Status | Periodic visual observation by process operators. | N.A. |
| III. C. QA/QC | Calibrate, maintain in accordance with manufacturer’s specification and 40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specification 1 requirements. | Trained personnel to perform inspections and maintenance. |

**IV. Recordkeeping**

The permittee shall comply with **Conditions E4-17(AA1)** through **E4-22(AA1)**. The permittee shall keep a record of the following: (1) all deviations as defined in II above; (2) all inspections of the baghouse; and (3) all repairs to the baghouse.

**PM Monitoring Approach for Melt Shop Capture System/Hoods**

<table>
<thead>
<tr>
<th>I. A. Indicator</th>
<th>Indicator 1</th>
<th>Indicator 2</th>
<th>Indicator 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opacity</td>
<td></td>
<td>Fan motor amps</td>
<td>Inspection</td>
</tr>
<tr>
<td>I. B. Measurement Approach</td>
<td>Melt Shop daily visible emission readings</td>
<td>Once per shift the fan motor amps are recorded to verify adequate draft on the hood system.</td>
<td>Maintenance inspections performed monthly</td>
</tr>
<tr>
<td>II. Indicator Range</td>
<td>The permittee shall assure compliance with the particulate matter emission limitation by conducting visible emission evaluations. A 6-minute average that exhibits six percent opacity or greater shall be considered a deviation. The permittee shall inspect the melt shop capture system and hood within 24 hours when a deviation occurs. Repairs shall be made in a timely manner.</td>
<td>The permittee shall assure compliance with the particulate matter emission limitation by maintaining the fan motor amps for system EP-1 between 35 and 73 amps and for system EP-1B between 105 and 270 amps. For system EP-1, a fan motor amp below 35 or above 73 shall be considered a deviation. For system EP-1B, a fan motor amp below 105 or above 270 shall be considered a deviation. The permittee shall inspect the melt shop capture system and hood within 24 hours when a deviation occurs. Repairs shall be made in a timely manner.</td>
<td>The permittee shall conduct maintenance inspections on the melt shop capture system and hood once per month. The permittee shall conduct maintenance as necessary.</td>
</tr>
<tr>
<td>III. Performance Criteria</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
III. A. Data Representativeness

| Measurements are taken per NSPS requirements. | Measurements are being made at the motor. | N.A. |

III. B. Verification of Operational Status

| N.A. | N.A. | N.A. |

III. C. QA/QC

| The observer will be trained in Reference Method 9. | N.A. | Trained personnel to perform inspections and maintenance. |

III. D. Monitoring Frequency

| Readings are taken and recorded once per day. | A minimum of once per shift. | Once per calendar month. |

III. D. 1. Collection Procedure

| Six-minute average. | N.A. | N.A. |

III. D. 2. Averaging Period

| The permittee shall comply with Conditions E4-17(AA1) through E4-19(AA1). The permittee shall keep a record of the visible emission readings and the fan motor amp readings. Additionally, the permittee shall keep a record of the following: (1) all deviations as defined in II above; (2) all inspections of the melt shop capture system and hood; and (3) all repairs to the melt shop capture system and hood. |

IV. Recordkeeping

| TAPCR 1200-03-09-.03(8) |

83-0129-02: North Rotary Dryer. Conditions E5-1 through E5-10 apply to source 83-0129-02

This source consists of a rotary kiln dryer (PM-2) fueled by natural gas and No. 2 fuel oil with cyclone and baghouse (EP-2) control.

E5-1. The maximum heat input for this source (83-0129-02) shall not exceed 14.7 MMBTU/hr.

Compliance Method: The permittee shall demonstrate compliance with the heat input limit through the record keeping required by Condition E5-9. TAPCR 1200-03-10-.02(2)

E5-2. Only natural gas and No. 2 fuel oil shall be used as fuels for this source (83-0129-02).

Compliance Method: The permittee shall demonstrate compliance through the recordkeeping required by Condition E5-9. TAPCR 1200-03-10-.02(2)

E5-3. The sulfur content of the No. 2 fuel oil shall not exceed 0.25 percent by weight.

Compliance Method: The permittee shall assure compliance by obtaining a written statement by the vendor, on an annual basis, guaranteeing in advance that these limits will not be exceeded or a sulfur content analysis for each shipment of fuel oil shall be provided. The statements and/or analyses must be retained for a period of not less than five years, maintained at the source location, and available for inspection by the Technical Secretary or a Division representative. TAPCR 1200-03-10-.04(2)(c)

E5-4. Particulate matter (PM) emitted from this source (83-0129-02) shall not exceed 0.68 lb/hr.

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018.

Compliance Method: The potential to emit particulate matter from this source (83-0129-02) is less than five tons per year. In accordance with TAPCR 1200-03-03-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually a compliance certification for particulate matter from source (83-0129-02).

E5-5. Sulfur dioxide (SO$_2$) emitted from this source (83-0129-02) shall not exceed 3.7 lb/hr.

TAPCR 1200-03-14-.03(5) and the application dated December 7, 2018.

Compliance Method: The permittee shall demonstrate compliance with the sulfur dioxide emission limit through the record keeping required by Condition E5-9.

E5-6. Carbon monoxide (CO) emitted from this source (83-0129-02) shall not exceed 1.2 lb/hr.

TAPCR 1200-03-07-.07(2) and the application dated December 7, 2018.

Compliance Method: The potential to emit carbon monoxide from this source (83-0129-02) is less than five tons per year. In accordance with TAPCR 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii), and the
compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit a compliance certification for carbon monoxide from source (83-0129-02) annually.

E5-7. Volatile organic compounds (VOC) emitted from this source (83-0129-02) shall not exceed 0.081 lb/hr.

Compliance Method: The potential to emit volatile organic compounds from this source (83-0129-02) is less than five tons per year. In accordance with TAPCR 1200-03-09-.04(5)(c)3, and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit a compliance certification for volatile organic compounds from source (83-0129-02) annually.

E5-8. Nitrogen oxides (NOx) emitted from this source (83-0129-02) shall not exceed 2.1 lb/hr.

Compliance Method: The permittee shall demonstrate compliance with the nitrogen oxides emission limit through the record keeping required by Condition E5-9.

E5-9. The permittee shall demonstrate compliance with the heat input limit in Condition E5-1, the fuel type limit in Condition E5-2, and the emission rates in Conditions E5-5 and E5-8 by the records required by this condition. The permittee shall maintain a log of the monthly No. 2 fuel oil usage, natural gas usage, usage of another type of fuel, and operating hours for the rotary kiln dryer. The permittee shall calculate the monthly average heat input and monthly average emission rate (from fuel combustion) for each pollutant (SO2 and NOx) from the appropriate emission factor listed in Condition E5-10. TAPCR 1200-03-10-.02(2)

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Total No. 2 Fuel Oil Usage (gallons)</th>
<th>Total Natural Gas Usage (ft³ of natural gas used)</th>
<th>If fuels other than natural gas or No. 2 fuel oil are used, then list the type of fuel and amount used</th>
<th>Operating Hours (hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Emissions and Heat Input for Rotary Kiln Dryer: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Monthly Average Heat Input (BTU/hr)</th>
<th>Monthly Average SO2 Emission Rate (lb/hr)</th>
<th>Monthly Average NOx Emission Rate (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following equations shall be used to calculate heat input and emissions:

- **Heat Input** \( \frac{\text{Btu}}{\text{hr}} \) \[ \frac{[(\text{FOU}) \times \text{FOHV}]] + [[\text{NGU}] \times \text{NGHV}]}{(\text{OH})} \]

- **Emissions** \( \frac{\text{lb}}{\text{hr}} \) \[ \frac{[(\text{FOU}) \times \text{FOEF}]] + [[\text{NGU}] \times \text{NGEF}]}{(\text{OH})} \]

**Acronyms**

OH = Operating Hours. See Notes below.

FOU = Total No. 2 Fuel Oil Usage (gallons per month)

NGU = Total Natural Gas Usage (ft³/month)

FOHV = No. 2 Fuel Oil Heating Value = 140,000 BTU/gal

NGHV = Natural Gas Heating Value = 1000 BTU/ft³

FOEF = No. 2 Fuel Oil Emission Factor from Condition E5-10

NGEF = Natural Gas Emission Factor from Condition E5-10

**Notes:** The values recorded for No. 2 fuel oil and natural gas usage shall be the actual meter readings for these fuels. A portable meter may also be used for the reading. The combustion source is considered operating if the burner is firing.
E5-10. SO₂, CO, NOₓ, and VOC emissions from the fossil fuel burning device used for this source are assumed exclusively from the combustion of the fossil fuel(s) as specified in Condition E5-2 and can be determined using the log(s)/records as required by Condition E5-9 in combination with the appropriate emission factors for the fuel(s) involved as listed below. In the event that more accurate and/or source specific emission factors are available, the permittee shall inform this Division of the findings with supporting documentation and require of this Division’s approval for using the new emission factors in the determination of the emission rates for any pollutants involved. TAPCR 1200-03-09-.03(8)

<table>
<thead>
<tr>
<th>Natural Gas Combustion Emission Factors For Combustor With Heat Input less than 100 MM Btu/hour</th>
<th>No. 2 Fuel Oil Combustion Emission Factors For Combustor With Heat Input less than 100 MM Btu/hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>0.6</td>
</tr>
<tr>
<td>NOₓ</td>
<td>100</td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
</tr>
</tbody>
</table>

[1] Weight percent of sulfur in the No. 2 fuel oil used.

83-0129-03: North Process Line (Screening). Condition E6-1 applies to source 83-0129-03

This source consists of equipment for screening, sizing, and storage of powdered steel product with baghouse control (EP-3).

E6-1. Particulate matter (PM) emitted from the baghouse (EP-3) (83-0129-03) shall not exceed 0.005 grain per dry standard cubic foot of exhaust gas (1.20 pounds per hour).

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018.

Compliance Method: The permittee shall assure compliance with the particulate matter emission limitation by keeping the pressure drop across the baghouse equal to or above 1.4 inches of water.

The pressure drop for the baghouse shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted.

For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

83-0129-04: Annealing Furnaces 1-8. PSD. Conditions E7-1 through E7-16 apply to source 83-0129-04.


E7-1. The maximum heat input for this source (83-0129-04) shall not exceed 80.0 MMBtu/hr in total.

TAPCR 1200-03-10-.02(2)

Compliance Method: The permittee shall demonstrate compliance by the records required by Condition E7-15.

E7-2. Only natural gas, liquid propane and No. 2 fuel oil shall be used as fuels for this source (83-0129-04).

TAPCR 1200-03-10-.02(2)

Compliance Method: The permittee shall demonstrate compliance through the recordkeeping required by Condition E7-15.

E7-3. The sulfur content of the No. 2 fuel oil shall not exceed 0.25 percent by weight.

TAPCR 1200-03-10-.04(2)(c)

Compliance Method: The permittee shall assure compliance by obtaining a written statement by the vendor, on an annual basis, guaranteeing in advance that these limits will not be exceeded or a sulfur content analysis for each shipment of fuel oil shall be...
provided. The statements and/or analyses must be retained for a period of not less than five years, maintained at the source location, and available for inspection by the Technical Secretary or a Division representative. TAPCR 1200-03-10-.04(2)(c)

E7-4. Visible emissions from this source (excluding the baghouse outlet stack EP-22) shall not exceed ten percent or greater opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average). Consistent with the requirements of Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted in this chapter which are necessary or unavoidable due to routine startup and shutdown conditions. The owner or operator shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or a Division representative upon request.

TAPCR 1200-03-05-.01(3) and 1200-03-05-.02(1); Agreement letter dated April 25, 1997 from the permittee.

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E7-5. Visible emissions from baghouse outlet stack EP-22 shall not exhibit greater than twenty percent opacity, except for one six-minute period in any one hour period, and for no more than four six-minute periods in any twenty-four hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average).

TAPCR 1200-03-05-.03(6) and 1200-03-05-.01(1).

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E7-6. Particulate matter (PM) emissions from the baghouse control systems serving this source shall comply with the following emission standards **simultaneously:**

1. Particulate matter (PM) emissions from the baghouse control systems serving this source (excluding the baghouse outlet stack EP-22) shall not exceed **5.21** pounds per hour (lb/hr);
2. Particulate matter (PM) emissions from the baghouse outlet stack EP-18 shall not exceed **0.0125** grains per dry standard cubic foot (gr/dscf) of stack gases;
3. Particulate matter (PM) emissions from the baghouse outlet stack EP-30 shall not exceed **0.0123** grains per dry standard cubic foot (gr/dscf) of stack gases;
4. Particulate matter (PM) emissions from the baghouse outlet stacks EP-10a, EP-10b, and EP-10c shall not exceed **0.005** grains per dry standard cubic foot (gr/dscf) of stack gases;

TAPCR 1200-03-09-.01(4); Information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance with the particulate matter emission limitation by keeping the pressure drop across the baghouse equal to or above the values listed in the table below:

<table>
<thead>
<tr>
<th>Identification Number</th>
<th>Minimum Pressure Drop (inches of water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-10a</td>
<td>1.0</td>
</tr>
<tr>
<td>EP-10b</td>
<td>1.0</td>
</tr>
<tr>
<td>EP-10c</td>
<td>1.0</td>
</tr>
<tr>
<td>Stack 5, EP-18</td>
<td>1.1</td>
</tr>
<tr>
<td>Stack 6, EP-30</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The pressure drop for the baghouse shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted. TAPCR 1200-03-10-.02(2)
For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

**E7-7.** Particulate matter (PM) emissions from this source (including fossil fuel-burning and excluding the baghouse outlet stack EP-22) shall not exceed 26.55 tons per all intervals of twelve consecutive months.

TAPCR 1200-03-09-.01(4); Information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** Compliance with the particulate matter emission limitation shall be demonstrated by the records required by Conditions E7-6, E7-8, and E7-15.

**E7-8.** Particulate matter (PM) emissions from the dust collector outlet stack EP-22 shall not exceed 0.005 grain per dry standard cubic foot (gr/dscf) of stack gases (0.77 lb/hr).

TAPCR 1200-03-07-.01(5) and the information contained in the permit application dated December 7, 2018. Particulate matter emissions from material handling in the pre-annealing process will be exhausted through the new EP-22 dust collector. (Note: Stack EP-22 was previously associated with Source No. 83-0129-19.)

**Compliance Method:** The permittee shall assure compliance with the particulate matter emission limitation by maintaining the pressure drop across the baghouse equal to or above 1.2 inches of water. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted.

For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

**E7-9.** Particulate matter (PM) emitted from all the fossil fuel burning devices used for this source (83-0129-04) shall not exceed 1.2 pounds per hour total, on a monthly average basis.

TAPCR 1200-03-06-.01(7); Information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by Condition E7-15.

**E7-10.** Sulfur dioxide (SO₂) emitted from this source (83-0129-04) shall not exceed 20.3 pounds per hour, on a monthly average basis, and 39.0 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-14-.01(5); Information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by Condition E7-15.

**E7-11.** Nitrogen oxide (NOₓ) emissions from this source (83-0129-04) shall not exceed 11.4 pounds per hour, on a monthly average basis, and 41.6 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.01(7); Information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by Condition E7-15.

**E7-12.** Volatile organic compound (VOC) emissions from this source (83-0129-04) shall not exceed 0.44 pounds per hour, on a monthly average basis.

TAPCR 1200-03-06-.01(7); Information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by Condition E7-15.

**E7-13.** Carbon monoxide (CO) emissions from this source (83-0129-04) shall not exceed 6.7 pounds per hour, on a monthly average basis.
TAPCR 1200-03-06-.01(7); Information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E7-15**.

**E7-14.** No. 2 fuel oil usage for this source (83-0129-04) shall not exceed in any case, 2,190,000 gallons during all intervals of twelve consecutive months with the rest of the annual fuel demand balanced by natural gas and/or liquid propane.

TAPCR 1200-03-06-.01(7); Information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E7-15**.

**E7-15.** The permittee shall demonstrate compliance with the heat input limit in **Condition E7-1**, the fuel type limit in **Condition E7-2**, the fuel usage limit in **Condition E7-14**, and the emission rate limits in **Conditions E7-9, E7-10, E7-11, E7-12, and E7-13** by the records required by this condition. The permittee shall maintain a log of the monthly No. 2 fuel oil usage, natural gas usage, liquid propane usage, usage of any other type of fuel, and operating hours for the annealing furnaces. The permittee shall calculate the monthly average heat input and monthly average emission rate (from fuel combustion) for each pollutant (PM, SO₂, NOx, CO, VOC) based on the appropriate emission factor listed in **Condition E7-16**. These records must be retained for a period of not less than five years, maintained at the source location, and available for inspection by the Technical Secretary or a Division representative.

TAPCR 1200-03-10-.02(2)

**Totals for Annealing Furnaces #1 through #8: Monthly/Yearly Log**

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Total No. 2 Fuel Oil Usage (gallons)</th>
<th>No. 2 Fuel Oil Usage (gallons/12 consecutive months)</th>
<th>Total Natural Gas Usage (ft³ of natural gas used)</th>
<th>Total Natural Gas Usage (ft³ of natural gas used/12 consecutive months)</th>
<th>Total Liquid Propane Usage (gallons)</th>
<th>Total Liquid Propane Usage (gallons/12 consecutive months)</th>
<th>If fuels other than natural gas or No. 2 fuel oil are used, then list the type of fuel and amount used</th>
<th>Operating Hours (hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Gallons per 12 consecutive month value is the sum of the Fuel Usage (in gallons) in the 11 months preceding the month just completed + the Fuel Usage (in gallons) in the month just completed. Similarly for natural gas and liquid propane.

**Emissions and Heat Input for Annealing Furnaces #1 through #8: Monthly/Yearly Log**

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Monthly Average Heat Input (BTU/hr)</th>
<th>Monthly Average PM Emission Rate (lb/hr)</th>
<th>Monthly Average SO₂ Emission Rate (lb/hr)</th>
<th>Monthly Average NOx Emission Rate (lb/hr)</th>
<th>Monthly Average CO Emission Rate (lb/hr)</th>
<th>Monthly Average VOC Emission Rate (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following equations shall be used to calculate heat input and emissions:

\[
\text{Heat Input} \left( \frac{\text{Btu}}{\text{hr}} \right) = \frac{\left[ (\text{FOU}) \times (\text{FOHV}) \right] + \left[ (\text{NGU}) \times (\text{NGHV}) \right] + \left[ (\text{LPU}) \times (\text{LPHV}) \right]}{(\text{OH})}
\]

\[
\text{Emissions} \left( \frac{\text{lb}}{\text{hr}} \right) = \frac{\left[ (\text{FOU}) \times (\text{FOEF}) \right] + \left[ (\text{NGU}) \times (\text{NGEF}) \right] + \left[ (\text{LPU}) \times (\text{LPEF}) \right]}{(\text{OH})}
\]

Emissions for Annealing Furnaces #1 through #8: Monthly/Yearly Log
Emissions \( \left( \frac{\text{ton}}{\text{month}} \right) = \left( FOU \right) \times (FOEF) + \left( NGU \right) \times (NGEF) + \left( LPU \right) \times (LPEF) \)

Emissions \( \left( \frac{\text{ton}}{12 \text{ consecutive months}} \right) = \left( FOU12 \right) \times (FOEF) + \left( NGU12 \right) \times (NGEF) + \left( LPU12 \right) \times (LPEF) \)

**Acronyms**

- OH = Operating Hours. See Notes below.
- FOU = Total No. 2 Fuel Oil Usage (gallons per month)
- FOU12 = Total No. 2 Fuel Oil Usage (gallons per 12 consecutive months)
- NGU = Total Natural Gas Usage (ft\(^3\)/month)
- NGU12 = Total Natural Gas Usage (ft\(^3\)/per 12 consecutive months)
- LPU = Total Liquid Propane Usage (gallons per month)
- LPU12 = Total Liquid Propane Usage (gallons/12 consecutive months)
- FOHV = No. 2 Fuel Oil Heating Value = 140,000 BTU/gal
- NGHV = Natural Gas Heating Value = 1000 BTU/ft\(^3\)
- LPHV = Liquid Propane Heating Value = 90,500 BTU/gal
- FOEF = No. 2 Fuel Oil Emission Factor from Condition E7-16
- NGEF = Natural Gas Emission Factor from Condition E7-16
- LPEF = Liquid Propane Emission Factor from Condition E7-16

**Notes:** The values recorded for No. 2 fuel oil, liquid propane, and natural gas usage shall be the actual meter readings for these fuels. A portable meter may also be used for the reading. The combustion source is considered operating if the burner is firing. “Operating Hours” is defined as the number of hours when either one or more of the furnaces is operating.

**E7-16.** The permittee shall use the emission factors listed below for calculating emission rates. PM, SO\(_2\), CO, NO\(_x\), and VOC emissions from all the fossil fuel burning devices used for this source are assumed exclusively from the combustion of the fossil fuel(s) as specified in Condition E7-2 and can be determined using the log(s)/records as required by Condition E7-15 in combination with the appropriate emission factors for the fuel(s) involved as listed below. In the event that more accurate and/or source specific emission factors are available, the permittee shall inform this Division of the findings with support documentation and require this Division’s approval for using the new emission factors in the determination of the emission rates for any pollutants involved.

<table>
<thead>
<tr>
<th>Natural Gas Combustion Emission Factors For Combustor With Heat Input less than 100 MM Btu/hour</th>
<th>No. 2 Fuel Oil Combustion Emission Factors For Combustor With Heat Input less than 100 MM Btu/hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollutant</td>
<td>Emission Factor ( \left( \frac{\text{lb}}{10^6 \text{ ft}^3 \text{ of natural gas used}} \right) )</td>
</tr>
<tr>
<td>PM</td>
<td>7.6</td>
</tr>
<tr>
<td>SO(_2)</td>
<td>0.6</td>
</tr>
<tr>
<td>NO(_x)</td>
<td>100</td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
</tr>
</tbody>
</table>

[1] Weight percent of sulfur in the No. 2 fuel oil used.

| Liquid Petroleum Gas Combustion Emission Factors For Combustor With Heat Input between 10 and 100 MM Btu/hour |  |
|-----------------------------------------------|  |
| Pollutant | Emission Factor \( \left( \frac{\text{lb}}{10^3 \text{ Gallons of Propane}} \right) \) | Source: AP-42, 5th Edition |
| PM | 0.4 | Table 1.5-1 |
| SO\(_2\) | 0.10 x S[1] | Table 1.5-1 |
| NO\(_x\) | 14 | Table 1.5-1 |
In the event that questions are raised about the existence of any SO\textsubscript{2}, CO, NO\textsubscript{x}, and VOC emission(s) other than those from the combustion of fossil fuel(s) as specified in Condition E7-2, this agency has full discretion to require the company to clarify the circumstance(s) and/or to take necessary action(s) to resolve the problem(s) pursuant to relevant state regulation(s).

TAPCR 1200-03-09-.03(8)

### 83-0129-12: Blending Operation

This blending operation consists of three 45,000 pound blenders, dry additive storage tanks, conveyor, receiver additive stations, with baghouse control (EP-11, EP-12a, EP-12b, EP-12c).

**E8-1.** Particulate matter (PM) emitted from the replacement baghouse EP-11 with pulse jet cleaning, controlling the combined blending operations shall not exceed 0.005 grains/dscf. The associated allowable PM rate is 1.45 lbs per hour based on a design flow rate of 33,800 dscf/min.

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018.

**Compliance Method:** The permittee shall assure compliance with the particulate matter emission limitation by keeping the pressure drop across the baghouse equal to or greater than 0.7 inches of H\textsubscript{2}O. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted.

For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

**E8-2.** The three small baghouses (EP-12a, EP-12b, EP-12c) shall exhaust into the large baghouse (EP-11). Only one receiver shall be operated at any one time. TAPCR 1200-03-09-.03(8)

**Compliance Method:** The baghouses shall be properly maintained and kept in good operating condition to ensure compliance with the applicable particulate matter limits required by Condition E8-1.

**E8-3.** Visible emissions from this source (83-0129-12) shall not exceed ten percent opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average). TAPCR 1200-03-05-.01(3) and agreement letter from the permittee dated October 29, 2003. The permittee has requested this limit in order to establish a visible emissions limit which is consistent with a PM emissions limit of less than 0.02 grain per dry standard cubic foot of exhaust gas.

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

### 83-0129-18. Annealing Furnaces 9, 10, 11, and 12

This metal powder annealing operation consists of four belt-fed annealing furnaces (9, 10, 11, and 12) with associated sizing, pre- and post-annealing material handling processes, and packaging processes. Eleven baghouses control the pre- and post-annealing processes.

**E9-1.** Only natural gas and No. 2 fuel oil shall be used as fuel(s) for this source (83-0129-18).

**Compliance Method:** The permittee shall demonstrate compliance through the recordkeeping required by Conditions E9-14 and E9-26.

TAPCR 1200-03-10-.02(2)

**E9-2.** The sulfur content of the No. 2 fuel oil shall not exceed 0.25 percent by weight.
Compliance Method: The permittee shall assure compliance by obtaining a written statement by the vendor, on an annual basis, guaranteeing in advance that these limits will not be exceeded or a sulfur content analysis for each shipment of fuel oil shall be provided. The statements and/or analyses must be retained for a period of not less than five years, maintained at the source location, and available for inspection by the Technical Secretary or a Division representative.

TAPCR 1200-03-10-.04(2)(c)

E9-3. The permittee shall take reasonable precautions (as stated in Condition D7 of this permit) to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, maintaining material handling equipment such that metal powder remains on equipment and does not become airborne.

TAPCR 1200-03-08-.01(1) and the application dated December 7, 2018.

Compliance Method: The permittee shall assure compliance by adhering to the previously submitted Maintenance and Clean-up Plan (MCP) during source operation.

E9-4. The source(s) controlled by the air pollution control device(s) shall not operate unless the control device(s) is in operation, except as provided in Condition E9-5. In the event a malfunction/failure of a control device(s) occurs, the operation of the process(es) controlled by the control device(s) shall be regulated by the provisions of Chapter 1200-03-20 of the Tennessee Air Pollution Control Regulations.

E9-5. The permittee may use the dust collector (EP-48) associated with the Distaloy Bulk Pack Dumper to collect the emissions from annealing furnaces 9, 10, 11, and 12 and associated process equipment in the event that the North 9/10 (EP-47 North) and South 11/12 (EP-47 South) dust collectors are down for maintenance and repairs, for up to 1,000 hours during any period of 12 consecutive months. In this situation, the permittee shall not operate the Distaloy Bulk Pack Dumper while maintenance and repairs are being made to the North 9/10 and South 11/12 dust collectors. The permittee shall use isolation valves, dampers, and air bleeds positions that shall be equipped with position switches and monitored with programmable logic controllers (PLC). This shall be part of an interlock system to prevent operation of the equipment and dust collectors in incorrect configurations.

The permittee shall maintain a log of the monthly hours of operation of annealing furnaces 9, 10, 11, and 12 during times when the North 9/10 dust collector and/or the South 11/12 dust collector are down for planned or unplanned maintenance or repair. The permittee shall maintain a log of the monthly hours of operation of annealing furnaces 9 and 10 when the North 9/10 dust collector is down for planned or unplanned maintenance or repair, the monthly hours of operation of annealing furnaces 11 and 12 when the South 11/12 dust collector is down for planned or unplanned maintenance or repair, whether the Distaloy Bulk Pack Dumper was used to collect emissions normally collected by the out-of-service dust collector(s), and whether the Distaloy Bulk Pack Dumper was in operation during this time. The hours of operation when both the North 9/10 dust collector and the South 11/12 dust collector are out-of-service while the associated furnaces are operating shall not be double counted when these dust collectors are out-of-service simultaneously.

TAPCR 1200-03-10-.02(2)

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Hours of operation when annealing furnaces 9/10 when the North 9/10 dust collector is down for planned or unplanned maintenance or repair. (hours/month)</th>
<th>Hours of operation when annealing furnaces 11/12 when the South 11/12 dust collector is down for planned or unplanned maintenance or repair. (hours/month)</th>
<th>Was the Distaloy dust collector used to collect emissions normally collected by the out-of-service dust collector(s)? (yes or no)</th>
<th>Was the Distaloy Bulk Pack Dumper in operation during this time? (yes or no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>November, 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December, 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January, 2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Total hours of operation when annealing furnaces 9, 10, 11, and 12 are in operation with the North 9/10 dust collector or South 11/12 dust collector down for planned or unplanned maintenance or repair. (hours/month)</th>
<th>Total hours of operation when annealing furnaces 9, 10, 11, and 12 are in operation with the North 9/10 dust collector or South 11/12 dust collector down for planned or unplanned maintenance or repair. (hours/12 consecutive months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>November, 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December, 2012</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Hours per 12 consecutive month value is the sum of the Hours in the 11 months preceding the month just completed.

<table>
<thead>
<tr>
<th>Conditions E9-6 through E9-17 apply to Annealing Furnaces 9 and 10 and associated processes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This metal powder annealing operation consists of two belt-fed annealing furnaces (No. 9 and 10) with associated sizing, pre- and post-annealing material handling processes, and packaging processes. Six baghouses control the pre- and post-annealing processes.</td>
</tr>
</tbody>
</table>

**E9-6.** The maximum heat input for Annealing Furnaces 9 and 10 and associated processes shall not exceed 27.0 MMBTU/hr in total.

**Compliance Method:** The permittee shall demonstrate compliance through the recordkeeping required by **Condition E9-14.**

TAPCR 1200-03-10-.02(2)

**E9-7.** The total quantity of No. 2 fuel oil used for Annealing Furnaces 9 and 10 and associated processes shall not exceed 526,000 gallons during all intervals of twelve consecutive months. This fuel usage limitation is established pursuant to the Application dated December 7, 2018.

TAPCR 1200-03-09-.02(11)

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E9-14.**

**E9-8.** Particulate matter (PM) emitted from Annealing Furnaces 9 and 10 and associated processes, excluding emissions from fossil fuel combustion, shall not exceed 2.68 pounds per hour (lb/hr).

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018.

**Compliance Method:** The permittee shall assure compliance with the particulate matter emission limitation by keeping the pressure drop across the baghouse equal to or above the values listed in the table below:

<table>
<thead>
<tr>
<th>Identification Number</th>
<th>Minimum Pressure Drop (inches of water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stack 16, EP-38</td>
<td>2.5</td>
</tr>
<tr>
<td>Stack 17, EP-41</td>
<td>2.5</td>
</tr>
<tr>
<td>Stack 18, EP-39</td>
<td>1.8</td>
</tr>
<tr>
<td>Pre-annealing 9 and 10 North dust collector, EP-47</td>
<td>1.0</td>
</tr>
<tr>
<td>Distaloy, EP-48</td>
<td>0.2</td>
</tr>
<tr>
<td>Distaloy, EP-62</td>
<td>1.2</td>
</tr>
</tbody>
</table>

The pressure drop for each baghouse shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted. For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

**E9-9.** Particulate matter (PM) emitted from the stack(s) serving the fossil fuel-burning device(s) used for Annealing Furnaces 9 and 10 and associated processes shall not exceed 0.39 pound per hour (lb/hr) and 1.1 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.01(7) and application dated December 7, 2018

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E9-14.**

**E9-10.** Sulfur dioxide (SO₂) emitted from Annealing Furnaces 9 and 10 and associated processes shall not exceed 6.85 pounds per hour (lb/hr) and 9.4 tons per all intervals of twelve consecutive months.

TAPCR 1200-03-14-.01(3) and the application dated December 7, 2018

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E9-14.**
E9-11. Carbon monoxide (CO) emitted from Annealing Furnaces 9 and 10 and associated processes shall not exceed 2.3 pounds per hour (lb/hr) and 9.9 tons per all intervals of twelve consecutive months.

TAPCR 1200-03-06-.03(2), TAPCR 1200-03-06-.01(7), and the application dated December 7, 2018

Compliance Method: The permittee shall demonstrate compliance by the records required by Condition E9-14.

E9-12. Volatile organic compounds (VOC) emitted from Annealing Furnaces 9 and 10 and associated processes shall not exceed 0.15 pounds per hour (lb/hr) and 0.65 tons per all intervals of twelve consecutive months.

TAPCR 1200-03-06-.03(2), TAPCR 1200-03-06-.01(7), and the application dated December 7, 2018

Compliance Method: The permittee shall demonstrate compliance by the records required by Condition E9-14.

E9-13. Nitrogen oxides (NOx) emitted from Annealing Furnaces 9 and 10 and associated processes shall not exceed 3.9 pounds per hour (lb/hr) and 13.4 tons per all intervals of twelve consecutive months.

TAPCR 1200-03-06-.03(2), TAPCR 1200-03-06-.01(7), and the application dated December 7, 2018

Compliance Method: The permittee shall demonstrate compliance by the records required by Condition E9-14.

E9-14. The permittee shall demonstrate compliance with the heat input limit in Condition E9-6, the fuel type limit in Condition E9-1, the fuel usage limit in Condition E9-7, and the emission rates in Conditions E9-9, E9-10, E9-11, E9-12, and E9-13 by the records required by this condition. The permittee shall maintain a log of the monthly No. 2 fuel oil usage, natural gas usage, usage of any other type of fuel, and operating hours for Annealing Furnaces 9 and 10 and associated processes. The permittee shall calculate the monthly average heat input and monthly average emission rate (from fuel combustion) for each pollutant (PM, SO2, NOx, CO, VOC) based on the appropriate emission factor listed in Condition E9-15. TAPCR 1200-03-10-.02(2)

Totals for Annealing Furnaces #9 and #10: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Total No. 2 Fuel Oil Usage (gallons)</th>
<th>No. 2 Fuel Oil Usage (gallons/12 consecutive months)</th>
<th>Total Natural Gas Usage (ft^3 of natural gas used)</th>
<th>Total Natural Gas Usage (ft^3 of natural gas used/12 consecutive months)</th>
<th>If fuels other than natural gas or No. 2 fuel oil are used, then list the type of fuel and amount used</th>
<th>Operating Hours (hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Gallons per 12 consecutive month value is the sum of the Fuel Usage (in gallons) in the 11 months preceding the month just completed + the Fuel Usage (in gallons) in the month just completed. Similarly for natural gas.

Emissions and Heat Input for Annealing Furnaces #9 and #10: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Monthly Average Heat Input (BTU/hr)</th>
<th>Monthly Average PM Emission Rate (lb/hr)</th>
<th>Monthly Average SO2 Emission Rate (lb/hr)</th>
<th>Monthly Average NOx Emission Rate (lb/hr)</th>
<th>Monthly Average CO Emission Rate (lb/hr)</th>
<th>Monthly Average VOC Emission Rate (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following equations shall be used to calculate heat input and emissions:

\[
\text{Heat Input (Btu/hr)} = \frac{[(\text{FOU})\times(\text{FOHV})] + [(\text{NGU})\times(\text{NGHV})]}{\text{(OH)}}
\]

\[
\text{Emissions (lb/hr)} = \frac{[(\text{FOU})\times(\text{FOEF})] + [(\text{NGU})\times(\text{NGEF})]}{\text{(OH)}}
\]
### Emissions for Annealing Furnaces #9 and #10: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>SO\textsubscript{2} Emission Rate (ton/month)</th>
<th>SO\textsubscript{2} Emission Rate (ton/12 consecutive months)</th>
<th>NO\textsubscript{x} Emission Rate (ton/month)</th>
<th>NO\textsubscript{x} Emission Rate (ton/12 consecutive months)</th>
<th>CO Emission Rate (ton/month)</th>
<th>CO Emission Rate (ton/12 consecutive months)</th>
<th>VOC Emission Rate (ton/month)</th>
<th>VOC Emission Rate (ton/12 consecutive months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Emissions (ton/month) = \([\text{FOU}] \times (\text{FOEF})\] + \([\text{NGU}] \times (\text{NGEF})\]

Emissions (ton/12 consecutive months) = \([\text{FOU12}] \times (\text{FOEF})\] + \([\text{NGU12}] \times (\text{NGEF})\]

**Acronyms**

- **OH** = Operating Hours. See Notes below.
- **FOU** = Total No. 2 Fuel Oil Usage (gallons per month)
- **FOU12** = Total No. 2 Fuel Oil Usage (gallons per 12 consecutive months)
- **NGU** = Total Natural Gas Usage (ft\textsuperscript{3}/month)
- **NGU12** = Total Natural Gas Usage (ft\textsuperscript{3} per 12 consecutive month)
- **FOHV** = No. 2 Fuel Oil Heating Value = 140,000 BTU/gal
- **NGHV** = Natural Gas Heating Value = 1000 BTU/ ft\textsuperscript{3}
- **FOEF** = No. 2 Fuel Oil Emission Factor from **Condition E9-15**
- **NGEF** = Natural Gas Emission Factor from **Condition E9-15**

**Notes:** The values recorded for No. 2 fuel oil and natural gas usage shall be the actual meter readings for these fuels. A portable meter may also be used for the reading. The combustion source is considered operating if the burner is firing. "Operating Hours" is defined as the number of hours when either one or both of the furnaces is operating.

**E9-15.** The permittee shall use the emission factors listed below for calculating emission rates. TAPCR 1200-03-09-.03(8)

#### Natural Gas Combustion Emission Factors
For Combustor With Heat Input less than 100 MM Btu/hour

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb/10\textsuperscript{6} ft\textsuperscript{3} of natural gas used)</th>
<th>Emission Factor Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>7.6</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.4-2</td>
</tr>
<tr>
<td>SO\textsubscript{2}</td>
<td>0.6</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.4-2</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>100</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.4-1</td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.4-1</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.4-2</td>
</tr>
</tbody>
</table>

#### No. 2 Fuel Oil Combustion Emission Factors
For Combustor With Heat Input less than 100 MM Btu/hour

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb/10\textsuperscript{6} gallons of No. 2 fuel oil used)</th>
<th>Emission Factor Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>2</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.3-1</td>
</tr>
<tr>
<td>SO\textsubscript{2}</td>
<td>142\times S[1]</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.3-1</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>20</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.3-1</td>
</tr>
<tr>
<td>CO</td>
<td>5</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.3-1</td>
</tr>
<tr>
<td>VOC</td>
<td>0.2</td>
<td>AP-42, 5\textsuperscript{th} Edition, Table 1.3-3</td>
</tr>
</tbody>
</table>

[1] Weight percent of sulfur in the No. 2 fuel oil used.

**E9-16.** Visible emissions from Annealing Furnaces 9 and 10 and associated processes shall not exhibit greater than ten percent opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A
(six-minute average). TAPCR 1200-03-05-01(3); Information contained in the Application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.


**Compliance Method:** The permittee shall assure compliance by installing controls that prevent the two baghouses from operating simultaneously. TAPCR 1200-03-09-.03(8)

---

**Conditions E9-18 through E9-28 apply to Annealing Furnaces 11 and 12**

<table>
<thead>
<tr>
<th>Identification Number</th>
<th>Minimum Pressure Drop (inches of water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 19, EP-42</td>
<td>3.0</td>
</tr>
<tr>
<td>No. 24, EP-44</td>
<td>1.5</td>
</tr>
<tr>
<td>No. 25, EP-45</td>
<td>1.5</td>
</tr>
<tr>
<td>EP-46</td>
<td>0.9</td>
</tr>
<tr>
<td>Pre-annealing 11 and 12 South Dust Collector, EP-47</td>
<td>1.0</td>
</tr>
</tbody>
</table>

This metal powder annealing operation consists of two belt-fed annealing furnaces (No. 11 and 12) with associated sizing, pre- and post-annealing material handling processes, and packaging processes. Five baghouses control the pre- and post-annealing processes.

---

**E9-18.** The maximum heat input for Annealing Furnaces 11 and 12 and associated processes shall not exceed **50.0 MMBTU/hr** in total.

**Compliance Method:** The permittee shall demonstrate compliance with the heat input limit through the record keeping required by **Condition E9-26. TAPCR 1200-03-10-.02(2)**

**E9-19.** The total quantity of No. 2 fuel oil used for Annealing Furnaces 11 and 12 and associated processes shall not exceed **215,000 gallons** during all intervals of twelve consecutive months. TAPCR 1200-03-09-.02(11)

This fuel usage limitation is established pursuant to the application dated December 7, 2018.

**Compliance Method:** The permittee shall demonstrate compliance with the No. 2 fuel oil usage limit through the record keeping required by **Condition E9-26. TAPCR 1200-03-10-.02(2)**

**E9-20.** Particulate matter (PM) emitted from Annealing Furnaces 11 and 12 and associated processes, excluding emissions from fossil fuel combustion, shall not exceed **2.43 pounds per hour (lb/hr).**

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018.

**Compliance Method:** The permittee shall assure compliance with the particulate matter emission limitation by keeping the pressure drop across the baghouse equal to or above the following values:

<table>
<thead>
<tr>
<th>Identification Number</th>
<th>Minimum Pressure Drop (inches of water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-annealing 11 and 12 South Dust Collector, EP-47</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The pressure drop for each baghouse listed above shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted. For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

**E9-21.** Particulate matter (PM) emitted from the stack(s) serving the fossil fuel-burning device(s) used for Annealing Furnaces 11 and 12 and associated processes shall not exceed **0.55 pound per hour (lb/hr) and 1.8 tons during all intervals of twelve consecutive months.**

TAPCR 1200-03-06-.01(7) and the application dated December 7, 2018.

**Compliance Method:** The permittee shall demonstrate compliance with the particulate matter limit through the record keeping required by **Condition E9-26.**
E9-22. Sulfur dioxide ($SO_2$) emitted from Annealing Furnaces 11 and 12 and associated processes shall not exceed 6.37 pounds per hour (lb/hr) and 3.9 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-14-.01(3) and the application dated December 7, 2018.

**Compliance Method:** The permittee shall demonstrate compliance with the sulfur dioxide limit through the record keeping required by **Condition E9-26.**

E9-23. Carbon monoxide (CO) emitted from Annealing Furnaces 11 and 12 and associated processes shall not exceed 16.9 pounds per hour (lb/hr) and 55.0 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.03(2), TAPCR 1200-03-06-.01(7), and the application dated December 7, 2018.

**Compliance Method:** The permittee shall demonstrate compliance with the carbon monoxide limit through the record keeping required by **Condition E9-26.**

E9-24. Volatile organic compounds (VOC) emitted from Annealing Furnaces 11 and 12 and associated processes shall not exceed 10.3 pounds per hour (lb/hr) and 35.7 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.03(2), TAPCR 1200-03-06-.01(7), and the application dated December 7, 2018.

**Compliance Method:** The permittee shall demonstrate compliance with the volatile organic compound limit through the record keeping required by **Condition E9-26.**

E9-25. Nitrogen oxides (NOx) emitted from Annealing Furnaces 11 and 12 and associated processes shall not exceed 13.4 pounds per hour (lb/hr) and 41.6 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.03(2), TAPCR 1200-03-06-.01(7), and the application dated December 7, 2018.

**Compliance Method:** The permittee shall demonstrate compliance with the nitrogen oxide limit through the record keeping required by **Condition E9-26.**

E9-26. The permittee shall assure compliance with the heat input limit in **Condition E9-18,** the fuel type limit in **Condition E9-1,** the fuel usage limit in **Condition E9-19,** and the emission rates in **Conditions E9-21, E9-22, E9-23, E9-24,** and **E9-25** by the records required by this condition. The permittee shall maintain a log of the monthly No. 2 fuel usage, natural gas usage, usage of any other type of fuel, and operating hours for Annealing Furnaces 11 and 12 and associated processes. The permittee shall calculate the monthly average heat input and monthly average emission rate (from fuel combustion) for each pollutant (PM, SO$_2$, NO$_x$, CO, VOC) based on the appropriate emission factor listed in **Condition E9-27.** TAPCR 1200-03-10-.02(2)

### Totals for Annealing Furnaces #11 and #12: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>No. 2 Fuel Oil Usage (gallons)</th>
<th>No. 2 Fuel Oil Usage (gallons/12 consecutive months)</th>
<th>Natural Gas Usage from AF #11 (ft$^3$ of natural gas used)</th>
<th>Natural Gas Usage from AF #11 (ft$^3$ of natural gas used/12 consecutive months)</th>
<th>Natural Gas Usage from AF #12 (ft$^3$ of natural gas used/12 consecutive months)</th>
<th>Natural Gas Usage from AF #12 (ft$^3$ of natural gas used/12 consecutive months)</th>
<th>If fuels other than natural gas or No. 2 fuel oil are used, then list the type of fuel and amount used</th>
<th>Operating Hours (hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>FOU</td>
<td>FOU12</td>
<td>NGU11</td>
<td>NGU11YR</td>
<td>NGU12</td>
<td>NGU12YR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Gallons per 12 consecutive month value is the sum of the Fuel Usage (in gallons) in the 11 months preceding the month just completed + the Fuel Usage (in gallons) in the month just completed. Similarly for natural gas.
# Emissions and Heat Input for Annealing Furnaces #11 and #12: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Monthly Average Heat Input (BTU/hr)</th>
<th>Monthly Average PM Emission Rate (lb/hr)</th>
<th>Monthly Average SO₂ Emission Rate (lb/hr)</th>
<th>Monthly Average NOₓ Emission Rate (lb/hr)</th>
<th>Monthly Average CO Emission Rate (lb/hr)</th>
<th>Monthly Average VOC Emission Rate (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following equations shall be used to calculate heat input and emissions:

\[
\text{Heat Input (Btu/hr)} = \frac{[(\text{FOU})x(\text{FOHV})] + [(\text{NGU11})x(\text{NGHV})] + [(\text{NGU12})x(\text{NGHV})]}{\text{(OH)}}
\]

\[
\text{Emissions (lb/hr)} = \frac{[(\text{FOU})x(\text{FOEF})] + [(\text{NGU11})x(\text{NGEF11})] + [(\text{NGU12})x(\text{NGEF12})]}{\text{(OH)}}
\]

# Emissions for Annealing Furnaces #11 and #12: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>SO₂ Emission Rate (ton/month)</th>
<th>SO₂ Emission Rate (ton/12 consecutive months)</th>
<th>NOₓ Emission Rate (ton/month)</th>
<th>NOₓ Emission Rate (ton/12 consecutive months)</th>
<th>CO Emission Rate (ton/month)</th>
<th>CO Emission Rate (ton/12 consecutive months)</th>
<th>VOC Emission Rate (ton/month)</th>
<th>VOC Emission Rate (ton/12 consecutive months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Emissions (ton/month) = [(\text{FOU})x(\text{FOEF})] + [(\text{NGU11})x(\text{NGEF11})] + [(\text{NGU12})x(\text{NGEF12})]

Emissions (ton/12 consecutive months) = [(\text{FOU12})x(\text{FOEF})] + [(\text{NGU11YR})x(\text{NG11EF})] + [(\text{NGU12YR})x(\text{NGU12EF})]

**Acronyms**

OH = Operating Hours. See Notes below.

FOU = Total No. 2 Fuel Oil Usage (gallons per month)

FOU12 = Total No. 2 Fuel Oil Usage (gallons per 12 consecutive months)

NGU11 = Natural Gas Usage from Annealing Furnace #11 (ft³ per month)

NGU12 = Natural Gas Usage from Annealing Furnace #12 (ft³ per month)

NGU11YR = Natural Gas Usage from Annealing Furnace #11 (ft³ per 12 consecutive months)

NGU12YR = Natural Gas Usage from Annealing Furnace #12 (ft³ per 12 consecutive months)

FOHV = No. 2 Fuel Oil Heating Value = 140,000 BTU/gal

NGHV = Natural Gas Heating Value = 1000 BTU/ft³

FOEF = No. 2 Fuel Oil Emission Factor from **Condition E9-27**

NGEF11 = Natural Gas Emission Factor for Annealing Furnace #11 from **Condition E9-27**

NGEF12 = Natural Gas Emission Factor for Annealing Furnace #12 from **Condition E9-27**

**Notes:** The values recorded for No. 2 fuel oil and natural gas usage shall be the actual meter readings for these fuels. A portable meter may also be used for the reading. Similarly, operating hours shall be the actual operating hours. The combustion source is considered operating if the burner is firing. “Operating Hours” is defined as the number of hours when either one or more of the furnaces is operating.

TAPCR 1200-03-09-.03(8)

Natural Gas Combustion Emission Factors
For Combustor With Heat Input less than 100 MM Btu/hour

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor for Annealing Furnace #11 (lb/10^6 ft^3 of natural gas used)</th>
<th>Emission Factor for Annealing Furnace #12 (lb/10^6 ft^3 of natural gas used)</th>
<th>Emission Factor Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>7.6</td>
<td>7.6</td>
<td>AP-42, 5th Edition, Table 1.4-2</td>
</tr>
<tr>
<td>SO2</td>
<td>0.6</td>
<td>0.6</td>
<td>AP-42, 5th Edition, Table 1.4-2</td>
</tr>
<tr>
<td>NOx</td>
<td>180</td>
<td>175</td>
<td>Vendor Information</td>
</tr>
<tr>
<td>CO</td>
<td>300</td>
<td>175</td>
<td>Vendor Information</td>
</tr>
<tr>
<td>VOC</td>
<td>200</td>
<td>112.5</td>
<td>Vendor Information</td>
</tr>
</tbody>
</table>

No. 2 Fuel Oil Combustion Emission Factors
For Combustor With Heat Input less than 100 MM Btu/hour

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb/10^3 gallons of No. 2 fuel oil used)</th>
<th>Emission Factor Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>2</td>
<td>AP-42, 5th Edition, Table 1.3-1</td>
</tr>
<tr>
<td>SO2</td>
<td>142×S[1]</td>
<td>AP-42, 5th Edition, Table 1.3-1</td>
</tr>
<tr>
<td>NOx</td>
<td>50.4</td>
<td>Vendor Information</td>
</tr>
<tr>
<td>CO</td>
<td>70</td>
<td>Vendor Information</td>
</tr>
<tr>
<td>VOC</td>
<td>42</td>
<td>Vendor Information</td>
</tr>
</tbody>
</table>

[1] Weight percent of sulfur in the No. 2 fuel oil used.

E9-28. Visible emissions from Annealing Furnaces 11 and 12 and associated processes shall not exceed ten percent opacity as determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6-minute average). Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average). TAPCR 1200-03-05-.01(3) and the information contained in the application dated July 16, 2004 from the permittee.

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

83-0129-31: Ladle Metallurgy Facility (LMF). PSD. Conditions E10-1 through E10-11 apply to source 83-0129-31

This source consists of the ladle metallurgy facility with baghouse control

E10-1. Steel produced at this source (83-0129-31) shall not exceed 76.5 tons per hour (daily average, 11:00 PM to 11:00 PM) and 441,600 tons during all intervals of twelve consecutive months.

Compliance Method: The permittee shall demonstrate compliance by the records required by Condition E10-9. TAPCR 1200-03-10-.02(2)

E10-2. Operating time for this source (83-0129-31) shall not exceed 8,000 hours during all intervals of twelve consecutive months.

Compliance Method: The permittee shall demonstrate compliance by the records required by Condition E10-9.

E10-3. Particulate matter emitted from the LMF control device(s) shall not exceed 0.0052 grain per dry standard cubic foot of exhaust gas. (1.53 lb/hr)

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018 from the permittee.
**Compliance Method:** The permittee shall demonstrate compliance with the particulate matter emission limitation by keeping the pressure drop across the baghouse equal to or above 0.7 inches of water across the baghouse. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted. TAPCR 1200-03-10-.02(2)

For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

**E10-4.** Sulfur dioxide (SO\(_2\)) emitted from this source (83-0129-31) shall not exceed 3.21 pounds per hour, not to exceed 9.3 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-14-.03(5) and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E10-9 and E10-10.**

**E10-5.** Carbon monoxide (CO) emitted from this source (83-0129-31) shall not exceed 88.3 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-07-.07(2) and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E10-10.**

**E10-6.** Volatile organic compounds (VOC) (excluding methane) emitted from this source (83-0129-31) shall not exceed 0.44 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-07-.07(2) and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E10-10.**

**E10-7.** Nitrogen oxides (NO\(_x\)) emitted from this source (83-0129-31) shall not exceed 26.7 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-07-.07(2) and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance by the records required by **Condition E10-10.**

**E10-8.** Visible emissions from this source (83-0129-31) shall not exhibit greater than ten percent opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.01(3); Information contained in the agreement letter dated May 13, 1999 from the permittee.

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

**E10-9.** The permittee shall assure compliance with the steel production limits in **Condition E10-1,** the operating hours limit in **Condition E10-2,** and the emission rates in **Condition E10-4** by the records required by this condition. The permittee shall maintain logs of the daily and monthly steel production and operating hours. The hourly steel production rate may be determined as a daily average, i.e., divide the daily (11:00 pm to 11:00 pm) production rate by the daily (11:00 pm to 11:00 pm) operating hours.

TAPCR 1200-03-10-.02(2)

**Daily Average Steel Production**

<table>
<thead>
<tr>
<th>Date</th>
<th>Steel Production (tons)</th>
<th>Operating Hours (hours)</th>
<th>Daily Average Steel Production (tons/hr)</th>
<th>Daily average SO(_2) emission rate (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following equation shall be used to calculate the Daily Average Steel Production:

- **Daily Average Steel Production:**

- **Operating Hours:**

- **Daily Average Steel Production (tons/hr):**

- **Daily average SO\(_2\) emission rate (lb/hr):**
Daily Average Steel Production (ton/hr) = \( \frac{\text{Steel Production (ton/day)}}{\text{Operating Hours (hours/day)}} \)

Daily Average \( \text{SO}_2 \) Emissions (lb/hr) = \( \frac{\text{Steel Production (ton/day)} \times \text{Emission Factor (lb/ton)}}{\text{Operating Hours (hours)}} \)

### Steel Production and Operating Hours

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Steel Production (tons/month)</th>
<th>Operating Hours (hours/month)</th>
<th>( \text{SO}_2 ) Emission Rate (ton/month)</th>
<th>NOx Emission Rate (ton/month)</th>
<th>CO Emission Rate (ton/month)</th>
<th>VOC Emission Rate (ton/month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Tons per 12 consecutive month value is the sum of the Steel Production (in tons) in the 11 months preceding the month just completed + the Steel Production (in tons) in the month just completed.

\[ \text{Emissions (tons/month)} = \left( \text{Steel Production (tons/month)} \right) \times \left( \text{Emission Factor} \left( \frac{\text{lb emissions}}{\text{ton steel produced}} \right) \right) \]

**E10-10.** The permittee shall demonstrate compliance with the emission rates in **Conditions E10-4, E10-5, E10-6, and E10-7** by the records required by this condition. The permittee shall calculate the hourly emission rates for \( \text{SO}_2 \) (on a monthly average basis); and the monthly and yearly emission rate for each pollutant (\( \text{SO}_2, \text{NOx}, \text{CO}, \text{VOC} \)) based on the steel production (from **Condition E10-9**) and the appropriate emission factor (from **Condition E10-11**). TAPCR 1200-03-10-.02(2)

### Emissions from LMF

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Steel Production (tons/12 consecutive months)</th>
<th>Operating Hours (hours/12 consecutive months)</th>
<th>( \text{SO}_2 ) Emission Rate (tons/12 consecutive months)</th>
<th>NOx Emission Rate (tons/12 consecutive months)</th>
<th>CO Emission Rate (tons/12 consecutive months)</th>
<th>VOC Emission Rate (tons/12 consecutive months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following equation shall be used to calculate emissions:

\[ \text{Emissions (ton/12 consecutive months)} = \left( \text{Steel Production (ton/12 consecutive months)} \right) \times \left( \text{Emission Factor (lb/ton)} \right) \]

**Notes:** For purposes of this permit, an operating day starts at 11:00 PM and ends at 11:00 PM the following day. Thus, as an example, the operating hours for the month of January would be all the operating hours between 11:00 PM, December 31 and 11:00 PM, January 31. Similarly, the steel production for the month of January would be all the steel produced between 11:00 PM, December 31 and 11:00 PM, January 31. “Operating Hours” is defined as the number of hours when the LMF is operating.

**E10-11.** The permittee shall use the emission factors listed below for calculating emission rates to assure compliance with **Conditions E10-3, E10-4, E10-5, E10-6, E10-7, E10-9, and E10-10.**

TAPCR 1200-03-09-.03(8)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb emitted per ton of steel produced)</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{SO}_2 )</td>
<td>0.042</td>
</tr>
<tr>
<td>( \text{NOx} )</td>
<td>0.121</td>
</tr>
<tr>
<td>CO</td>
<td>0.4</td>
</tr>
<tr>
<td>VOC</td>
<td>0.002</td>
</tr>
</tbody>
</table>
**83-0129-32: South Rotary Dryer.** Conditions E11-1 through E11-13 apply to source 83-0129-32

This source consists of a rotary kiln dryer (PM-2A) with cyclone and baghouse (EP-2A) control. Natural gas and No. 2 fuel oil.

**E11-1.** The maximum heat input for this source (83-0129-32) shall not exceed 16.0 MMBTU/hr.

TAPCR 1200-03-09-.02(11), TAPCR 1200-03-10-.02(2), and the application dated December 7, 2018

**Compliance Method:** The permittee shall demonstrate compliance with the heat input limit through the record keeping required by **Condition E11-11**.

**E11-2.** Only natural gas and No. 2 fuel oil shall be used as fuels for this source (83-0129-32).

TAPCR 1200-03-10-.02(2)

**Compliance Method:** The permittee shall demonstrate compliance through the recordkeeping required by **Condition E11-11**.

**E11-3.** The sulfur content of the No. 2 fuel oil shall not exceed 0.25 percent by weight.

**Compliance Method:** The permittee shall assure compliance by obtaining a written statement by the vendor, on an annual basis, guaranteeing in advance that these limits will not be exceeded or a sulfur content analysis for each shipment of fuel oil shall be provided. The statements and/or analyses must be retained for a period of not less than five years, maintained at the source location, and available for inspection by the Technical Secretary or a Division representative. TAPCR 1200-03-10-.04(2)(c)

**E11-4.** No. 2 fuel oil usage for this source (83-0129-32) shall not exceed 230,000 gallons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.01(7), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance with the No. 2 fuel oil usage limit through the record keeping required by **Condition E11-11**.

**E11-5.** Operating hours for this source (83-0129-32) shall not exceed 8,000 hours during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.01(7), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance with the operating hours limit through the record keeping required by **Condition E11-11**.

**E11-6.** Particulate matter (PM) emitted from this source (83-0129-32) shall not exceed 0.008 grains per dry standard cubic foot of exhaust gas (1.03 pounds per hour).

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The potential to emit particulate matter from this source (83-0129-32) is less than five tons per year. In accordance with TAPCR 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(ii), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit a compliance certification for particulate matter from source (83-0129-32) annually.

**E11-7.** Sulfur dioxide (SO₂) emitted from this source (83-0129-32) shall not exceed 4.06 pounds per hour and 4.1 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-14-.01(5), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The permittee shall demonstrate compliance with the sulfur dioxide emission limit through the record keeping required by **Condition E11-11**.

**E11-8.** Nitrogen oxide (NOₓ) emissions from this source (83-0129-32) shall not exceed 2.29 pounds per hour and 7.09 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.01(7), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.
Compliance Method: The permittee shall demonstrate compliance with the nitrogen oxides emission limit through the record keeping required by Condition E11-11.

E11-9. Carbon monoxide (CO) emissions from this source (83-0129-32) shall not exceed 1.34 pounds per hour and 5.38 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-06-.01(7), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

Compliance Method: The permittee shall demonstrate compliance with the carbon monoxide emission limit through the record keeping required by Condition E11-11.

E11-10. Volatile organic compound (VOC) emissions from this source (83-0129-32) shall not exceed 0.09 pounds per hour.

TAPCR 1200-03-06-.01(7), the information contained in the PSD permit application dated November 25, 2002, and the application dated December 7, 2018 from the permittee.

Compliance Method: The potential to emit volatile organic compounds from this source (83-0129-32) is less than five tons per year. In accordance with TAPCR 1200-03-09-.04(5)(c)3., and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit a compliance certification for volatile organic compounds from source (83-0129-32) annually.

E11-11. The permittee shall demonstrate compliance with the heat input limit in Condition E11-1, the fuel type limit in Condition E11-2, the fuel usage limit in Condition E11-4, the operating hours limit in Condition E11-5, and the emission rates in Conditions E11-7, E11-8, and E11-9 by the records required by this condition. The permittee shall maintain a log of the monthly No. 2 fuel oil usage, natural gas usage, usage of any other type of fuel, and operating hours for the rotary kiln dryer. The permittee shall calculate the monthly average heat input and monthly average emission rate (from fuel combustion) for each pollutant (SO₂, NOₓ, CO) based on the appropriate emission factor listed in Condition E11-12. TAPCR 1200-03-10-.02(2)

Totals for Rotary Kiln Dryer: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Total No. 2 Fuel Oil Usage (gallons)</th>
<th>No. 2 Fuel Oil Usage (gallons/12 consecutive months)</th>
<th>Total Natural Gas Usage (ft³ of natural gas used)</th>
<th>Total Natural Gas Usage (ft³ of natural gas used/12 consecutive months)</th>
<th>If fuels other than natural gas or No. 2 fuel oil are used, then list the type of fuel and amount used</th>
<th>Operating Hours (hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Gallons per 12 consecutive month value is the sum of the Fuel Usage (in gallons) in the 11 months preceding the month just completed + the Fuel Usage (in gallons) in the month just completed. Similarly for natural gas.

Emissions and Heat Input for Rotary Kiln Dryer: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>Monthly Average Heat Input (BTU/hr)</th>
<th>Monthly Average SO₂ Emission Rate (lb/hr)</th>
<th>Monthly Average NOₓ Emission Rate (lb/hr)</th>
<th>Monthly Average CO Emission Rate (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following equations shall be used to calculate heat input and emissions:

\[
\text{Heat Input} \left( \frac{\text{Btu}}{\text{hr}} \right) = \left[ \left( \text{FOU} \right) \times \left( \text{FOHV} \right) \right] \div \left( \text{OH} \right)
\]

\[
\text{Emissions} \left( \frac{\text{lb}}{\text{hr}} \right) = \left[ \left( \text{FOU} \right) \times \left( \text{FOEF} \right) \right] \div \left( \text{OH} \right)
\]
Emissions for Rotary Kiln Dryer: Monthly/Yearly Log

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>SO₂ Emission Rate (ton/12 consecutive months)</th>
<th>SO₂ Emission Rate (ton/month)</th>
<th>NOx Emission Rate (ton/12 consecutive months)</th>
<th>NOx Emission Rate (ton/month)</th>
<th>CO Emission Rate (ton/month)</th>
<th>CO Emission Rate (ton/12 consecutive months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
Emissions \left( \frac{\text{ton}}{\text{month}} \right) = [(FOU) \times (FOEF)] + [(NGU) \times (NGEF)]
\]

\[
Emissions \left( \frac{\text{ton}}{12 \text{ consecutive months}} \right) = [(FOU12) \times (FOEF)] + [(NGU12) \times (NGEF)]
\]

**Acronyms**

OH = Operating Hours. See Notes below.
FOU = Total No. 2 Fuel Oil Usage (gallons per month)

**Notes:** The values recorded for No. 2 fuel oil and natural gas usage shall be the actual meter readings for these fuels. A portable meter may also be used for the reading. The combustion source is considered operating if the burner is firing.

**E11-12.** SO₂, CO, NOₓ, and VOC emissions from the fossil fuel burning device used for this source are assumed exclusively from the combustion of the fossil fuel(s) as specified in Condition E11-2 and can be determined using the log(s)/records as required by Condition E11-11 in combination with the appropriate emission factors for the fuel(s) involved as listed below. In the event that more accurate and/or source specific emission factors are available, the permittee shall inform this Division of the findings with supporting documentation and require of this Division’s approval for using the new emission factors in the determination of the emission rates for any pollutants involved. TAPCR 1200-03-09-.02(11) and the application dated December 7, 2018 from the permittee.

**Natural Gas Combustion Emission Factors For Combustor With Heat Input less than 100 MM Btu/hour**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb/10⁶ ft³ of natural gas used)</th>
<th>Source: AP-42, 5th Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>0.6</td>
<td>Table 1.4-2</td>
</tr>
<tr>
<td>NOₓ</td>
<td>100</td>
<td>Table 1.4-1</td>
</tr>
<tr>
<td>CO</td>
<td>84</td>
<td>Table 1.4-1</td>
</tr>
<tr>
<td>VOC</td>
<td>5.5</td>
<td>Table 1.4-2</td>
</tr>
</tbody>
</table>

**No. 2 Fuel Oil Combustion Emission Factors For Combustor With Heat Input less than 100 MM Btu/hour**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>142 x S[1]</td>
<td>Table 1.3-1</td>
</tr>
<tr>
<td>NOₓ</td>
<td>20</td>
<td>Table 1.3-1</td>
</tr>
<tr>
<td>CO</td>
<td>5</td>
<td>Table 1.3-1</td>
</tr>
<tr>
<td>VOC</td>
<td>0.2</td>
<td>Table 1.3-3</td>
</tr>
</tbody>
</table>

[1] Weight percent of sulfur in the No. 2 fuel oil used.

**E11-13.** Visible emissions from this source (83-0129-32) shall not exceed twenty percent or greater opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average). TAPCR 1200-03-05-.01(3) and the information contained in the agreement letter dated May 13, 1999 from the permittee.

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

This source consists of a carbon injection system for the EAF with dust collector control.

E13-1. Particulate matter (PM) emitted from this source (83-0129-39) shall not exceed 0.02 grains per dry standard cubic foot of exhaust gas (0.29 lbs/hr.).

TAPCR 1200-03-26-.02(6)(b) (fee agreement) and the application dated December 7, 2018 from the permittee.

**Compliance Method:** The potential to emit particulate matter from this source (83-0129-39) is less than five tons per year. In accordance with TAPCR 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit a compliance certification for particulate matter from source (83-0129-39) annually.

E13-2. The carbon injection system shall not be operated during any malfunction of its control device(s) and shall not be operated without the use of its baghouse/dust collector. If a malfunction occurs during source operation, use of the carbon injection system shall cease at the end of the current batch of the associated Electric Arc Furnace (EAF). The carbon injection system shall not be operated unless it is ducted to a properly functioning control system.

**Compliance Method:** The permittee shall demonstrate compliance with the operation of control devices by assuring compliance with **Condition E13-1.**

TAPCR 1200-03-09-.03(8) and 1200-03-20

**83-0129-41: Carbon Silo.** Condition E14-1 applies to source 83-0129-41

This source consists of a carbon silo with bin vent/bag filter control.

E14-1. Particulate matter (PM) emitted from this source (83-0129-41) shall not exceed 0.2 pounds per hour (lb/hr).

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018.

**Compliance Method:** The potential to emit particulate matter from this source (83-0129-41) is less than five tons per year. In accordance with TAPCR 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit a compliance certification for particulate matter from source (83-0129-41) annually.

**83-0129-42: HCl Dip Tank.** Conditions E15-1 and E15-2 apply to source 83-0129-42

This operation consists of one HCl dip tank used for baghouse maintenance activities.

E15-1. Hydrogen chloride (HCl) emitted from this source (83-0129-42) shall not exceed 8.5 tons during all intervals of twelve consecutive months.

TAPCR 1200-03-07-.07(2), 1200-03-10-.02(2), and the application dated December 7, 2018

**Compliance Method:** Compliance with this emission limitation shall be demonstrated by the recordkeeping of calculating the HCl emissions and maintaining a monthly log of the amount of new solution added and the amount of spent solution removed. The permittee shall calculate the HCl emissions for each month and during each interval of twelve consecutive months.

**Monthly/Yearly Log**

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>New Solution added (gallons)</th>
<th>Spent Solution Removed (gallons)</th>
<th>HCl Emissions (tons/month)</th>
<th>HCl Emissions (ton/12 consecutive months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
E15-2. The exhaust gases from this source (83-0129-42) shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of 2 feet not less than 80 feet above ground level.

TAPCR 1200-03-12-.03

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>This operation consists of ten storage tanks vented to a single baghouse (EP-65).</td>
</tr>
</tbody>
</table>

E16-1. Particulate matter emitted from this source (83-0129-43) shall not exceed 0.02 grains per dry standard cubic feet of stack gases (0.55 pounds per hour).

TAPCR 1200-03-07-.01(5) and the application dated December 7, 2018

**Compliance Method:** The permittee shall assure compliance with the particulate matter emission limitation by keeping the pressure drop across the baghouse equal to or above 0.3 inches of water. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted. TAPCR 1200-03-10-.02(2)

For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

<table>
<thead>
<tr>
<th>83-0129-45: Two RICE Generators. Conditions E17-1 through E17-15 apply to source 83-0129-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>This source consists of two reciprocating internal combustion engines (RICE) generators</td>
</tr>
</tbody>
</table>

E17-1. The maximum power output for these engines shall not exceed values in the table below.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model #</th>
<th>Equipment Type</th>
<th>Engine Type</th>
<th>Power Output (hp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cummins</td>
<td>DGFB</td>
<td>Generator</td>
<td>CI</td>
<td>277</td>
</tr>
<tr>
<td>Caterpillar</td>
<td>3208</td>
<td>Generator</td>
<td>CI</td>
<td>270</td>
</tr>
</tbody>
</table>

CI-Compression Ignition  hp-Horse Power

TAPCR 1200-03-09-.02(11) and the application dated December 7, 2018

E17-2. Only diesel and No. 2 fuel oil shall be used as fuels for this source.

**Compliance Method:** Compliance with this limitation shall be assured by means of the annual certification requirements found in Condition E2(MM1)(b). Certifications shall be submitted in accordance with Condition E2(MM1)(b) of Title V Operating Permit Number 575853. TAPCR 1200-03-10-.04(2)

E17-3. Sulfur content of the diesel/No. 2 fuel oil shall not exceed 0.25 percent. This limitation is established pursuant to the information contained in the application dated December 7, 2018, from the permittee. TAPCR 1200-03-14-.03(5)

**Compliance Method:** The permittee shall assure compliance by obtaining a written statement by the vendor, on an annual basis, guaranteeing in advance that these limits will not be exceeded or a sulfur content analysis for each shipment of fuel oil shall be provided. The statements and/or analyses must be retained for a period of not less than five years, maintained at the source location, and available for inspection by the Technical Secretary or a Division representative. TAPCR 1200-03-10-.04(2)(c)

E17-4. Particulate Matter (PM) emitted from this source (83-0129-45) shall not exceed 0.6 MMBTU/hr. The PM allowable for fee purposes amounts to 2.30 lbs/hr and 0.57 tons per year.

TAPCR 1200-03-06-.02(2)(a) and the application dated December 7, 2018

**Compliance Method:** The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E17-1. Compliance with this emission limitation is based on an emission factor of 0.0022 pounds of PM per horsepower-hour (EPA AP-42, Section 3.3, October 1996) for compression ignition engines.
E17-5. Sulfur Dioxide (SO₂) emitted from this source (83-0129-45) shall not exceed 1.1 pounds per hour.

TAPCR 1200-03-14-.03(5) and the application dated December 7, 2018

Compliance Method: The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E17-1, E17-2, and E17-3. Compliance with this emission limitation is based on an emission factor of 0.00205 pounds of SO₂ per horsepower-hour (EPA AP-42, Section 3.3, October 1996) for compression ignition engines.

E17-6. Carbon Monoxide (CO) emitted from this source (83-0129-45) shall not exceed 3.7 pounds per hour.

TAPCR 1200-03-07-.07(2) and the application dated December 7, 2018

Compliance Method: The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E17-1 and E17-2. Compliance with this emission limitation is based on an emission factor of 0.00668 pounds of CO per horsepower-hour (EPA AP-42, Section 3.3, October 1996) for compression ignition engines.

E17-7. Volatile Organic Compounds (VOCs) emitted from this source (83-0129-45) shall not exceed 1.4 pounds per hour.

TAPCR 1200-03-07-.07(2) and the application dated December 7, 2018

Compliance Method: The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E17-1 and E17-2. Compliance with this emission limitation is based on an emission factor of 0.0025141 pounds of VOC per horsepower-hour (EPA AP-42, Section 3.3, October 1996) for compression ignition engines.

E17-8. Nitrogen Oxides (NOₓ) emitted from this source (83-0129-45) shall not exceed 17.0 pounds per hour.

TAPCR 1200-03-07-.07(2) and the application dated December 7, 2018

Compliance Method: The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E17-1 and E17-2. Compliance with this emission limitation is based on an emission factor of 0.031 pounds of NOₓ per horsepower-hour (EPA AP-42, Section 3.3, October 1996) for compression ignition engines.

E17-9. This source is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ). For each existing stationary CI RICE located at an area source of HAP emissions, the permittee must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. TAPCR 1200-03-09-.03(8)

E17-10. Pursuant to 40 CFR §63.6603(a), for each existing stationary RICE located at an area source of HAP emissions, the permittee must comply with the requirements in Table 2d to 40 CFR Part 63, Subpart ZZZZ that apply to each RICE. The permittee must maintain a record of the date of each oil and filter change, air cleaner inspection, and hose and belt inspection. TAPCR 1200-03-09-.03(8)

Table 2d

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>The permittee must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup the permittee must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Non-emergency, non-black start CI stationary RICE ≤ 300 HP</td>
<td>a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;¹</td>
<td>Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.</td>
</tr>
<tr>
<td></td>
<td>b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
</tbody>
</table>

¹Sources have the option to utilize an oil analysis program as described in 40 CFR §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

E17-11. Pursuant to 40 CFR §63.6605(a), the permittee must be in compliance with the emission limitations and operating limitations in 40 CFR Part 63, Subpart ZZZZ, that apply to the permittee at all times. Pursuant to 40 CFR §63.6605(b), at all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Technical Secretary which may include, but is not limited to, monitoring results, review
of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. TAPCR 1200-03-09-.03(8)

E17-12. Pursuant to 40 CFR §63.6625(e) and 40 CFR §63.6640(a), for each existing non-emergency CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions, the permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. TAPCR 1200-03-09-.03(8)

E17-13. Pursuant to 40 CFR §63.6625(h), for each existing stationary engine, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d to 40 CFR Part 63, Subpart ZZZZ apply. TAPCR 1200-03-09-.03(8)

E17-14. Pursuant to 40 CFR §63.6640(b), the permittee must report each instance in which the permittee did not meet each emission limitation or operating limitation in Table 2d to 40 CFR Part 63, Subpart ZZZZ that apply to the permittee. These instances are deviations from the emission and operating limitations in 40 CFR Part 63, Subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR §63.6650. TAPCR 1200-03-09-.03(8)

E17-15. Pursuant to 40 CFR §63.6655(a), the permittee must keep the following records: TAPCR 1200-03-09-.03(8) and 1200-03-10-.02(2)

(1) A copy of each notification and report that the permittee submitted to comply with this 40 CFR 63, subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model #</th>
<th>Equipment Type</th>
<th>Engine Type</th>
<th>Power Output (hp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generac</td>
<td>QT02224JNAX</td>
<td>Generator</td>
<td>SI</td>
<td>29.5</td>
</tr>
</tbody>
</table>

SI-Spark Ignition h-horse power

TAPCR 1200-03-09-.02(11) and the application dated December 7, 2018

E18-1. The maximum power output for this engine shall not exceed the value in the table below.

E18-2. Only natural gas shall be used as a fuel for this source.

**Compliance Method:** Compliance with this limitation shall be assured by annual certification. Certifications shall be submitted in accordance with Condition E2(MM1)(b) of Title V Operating Permit Number 575853. TAPCR 1200-03-10-.04(2)

E18-3. Particulate Matter (PM) emitted from this source (83-0129-46) shall not exceed 0.6 lbs/MMBtu. The PM allowable for fee purposes amounts to 0.13 lbs/hr and 0.033 tons per year.

TAPCR 1200-03-06-.02(2)(a) and the application dated December 7, 2018

**Compliance Method:** The permittee shall demonstrate compliance with this emission limitation by assuring compliance with **Conditions E18-1** and **E18-2**. Compliance with this emission limitation is based on an emission factor of 0.0095 pounds of PM per MMBtu (EPA AP-42, Section 3.2, July 2000) for spark ignition engines.

E18-4. Sulfur Dioxide (SO₂) emitted from this source (83-0129-46) shall not exceed 0.0002 pounds per hour.

TAPCR 1200-03-14-.03(5) and the application dated December 7, 2018
Compliance Method: The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E18-1 and E18-2. Compliance with this emission limitation is based on an emission factor of 0.0006 pounds of SO\textsubscript{2} per MMBtu (EPA AP-42, Section 3.2, July 2000) for spark ignition engines.

E18-5. Pursuant to 40 CFR §60.4233(d), the permittee must comply with the emissions standards for field testing in 40 CFR §1048.101(c) for non-emergency stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP). Pursuant to 40 CFR §1048.101(c), exhaust emissions may not exceed field-testing standards, as follows:

1. Measure emissions using the field-testing procedures in subpart F of 40 CFR 60:
2. The HC+NO\textsubscript{X} standard is 3.8 g/kW-hr and the CO standard is 6.5 g/kW-hr. For natural gas-fueled engines, the permittee is not required to measure nonmethane hydrocarbon emissions or total hydrocarbon emissions for testing to show that the engine meets the emission standards of this condition; that is, you may assume HC emissions are equal to zero.
3. The permittee may apply the following formula to determine alternate emission standards that apply to the engines instead of the standards in paragraph (2) of this condition: (HC+NO\textsubscript{X}) × CO\textsuperscript{0.791} ≤ 16.78. HC+NO\textsubscript{X} emission levels may not exceed 3.8 g/kW-hr and CO emission levels may not exceed 31.0 g/kW-hr. The following table illustrates a range of possible values under this paragraph (c)(2):

<table>
<thead>
<tr>
<th>HC+NO\textsubscript{X} (g/kW-hr)</th>
<th>CO (g/kW-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.8</td>
<td>6.5</td>
</tr>
<tr>
<td>3.1</td>
<td>8.5</td>
</tr>
<tr>
<td>2.4</td>
<td>11.7</td>
</tr>
<tr>
<td>1.8</td>
<td>16.8</td>
</tr>
<tr>
<td>1.4</td>
<td>23.1</td>
</tr>
<tr>
<td>1.1</td>
<td>31.0</td>
</tr>
</tbody>
</table>

TAPCR 1200-03-09-.03(8)

E18-6. This source is subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40 CFR Part 60, Subpart JJJJ). The permittee shall comply with 40 CFR Part 60, Subpart JJJJ upon startup. This source is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ). The permittee shall meet the requirements of 40 CFR 63, subpart ZZZZ by meeting the requirements of 40 CFR 60, subpart JJJJ. No further requirements apply for this engine under 40 CFR 63, subpart ZZZZ. TAPCR 1200-03-09-.03(8)

E18-7. Pursuant to 40 CFR §60.4243(b), for each stationary SI internal combustion engine that must comply with the emission standards specified in 40 CFR §60.4233(d), the permittee must demonstrate compliance as follows:

For each non-certified stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test within one year of start-up to demonstrate compliance according to the requirements specified in 40 CFR §60.4244. Pursuant to 40 CFR §60.4245(d), the permittee must submit a copy of each performance test as conducted in 40 CFR §60.4244 within 60 days after the test has been completed. TAPCR 1200-03-09-.03(8)

E18-8. Pursuant to 40 CFR §60.4245(a), the permittee must keep records of the information in paragraphs (1) through (4) of this condition.

1. All notifications submitted to comply with this subpart and all documentation supporting any notification.
2. Maintenance conducted on the engine.
3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

TAPCR 1200-03-09-.03(8)
Permit Number 575853 PROPOSED Significant Modification 1 Title V Operating Permit Expiration Date: May 28, 2025

**83-0129-47: Natural Gas Fired Generator (8kW). Conditions E19-1 through E19-9 apply to source 83-0129-47**

This source consists of one reciprocating internal combustion engine (RICE) with generator.

---

**E19-1.** The maximum power output for this engine shall not exceed the value in the table below.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model #</th>
<th>Equipment Type</th>
<th>Engine Type</th>
<th>Power Output (hp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generac</td>
<td>62450</td>
<td>Generator</td>
<td>SI</td>
<td>10.72</td>
</tr>
</tbody>
</table>

SI-Spark Ignition hp-horse power

TAPCR 1200-03-09-.02(11) and the application dated December 7, 2018

**E19-2.** Only natural gas shall be used as a fuel for this source.

**Compliance Method:** Compliance with this limitation shall be assured by annual certification. Certifications shall be submitted in accordance with Condition E2(MM1)(b) of Title V Operating Permit Number 575853. TAPCR 1200-03-10-.04(2)

**E19-3.** Particulate Matter (PM) emitted from this source (83-0129-47) shall not exceed 0.6 lb/MMBTU. The PM allowable for fee purposes amounts to 0.048 lbs/hr and 0.012 tons per year.

TAPCR 1200-03-06-.02(2)(a) and the application dated December 7, 2018

**Compliance Method:** The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E19-1 and E19-2. Compliance with this emission limitation is based on an emission factor of 0.0095 pounds of PM per MMBtu (EPA AP-42, Section 3.2, July 2000) for spark ignition engines.

**E19-4.** Sulfur Dioxide (SO₂) emitted from this source (83-0129-47) shall not exceed 0.0001 pounds per hour.

TAPCR 1200-03-14-.03(5) and the application dated December 7, 2018

**Compliance Method:** The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E19-1 and E19-2. Compliance with this emission limitation is based on an emission factor of 0.0006 pounds of SO₂ per MMBtu (EPA AP-42, Section 3.2, July 2000) for spark ignition engines.

**E19-5.** Carbon Monoxide (CO) emitted from this source (83-0129-47) shall not exceed 610 grams per kilowatt-hour (g/kW-hr).

40 CFR §60.4233(a) and 40 CFR §1054.105

**Compliance Method:** The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E19-1, E19-2, and E19-8.

**E19-6.** Hydrocarbons plus Nitrogen Oxides (NOₓ) emitted from this source (83-0129-47) shall not exceed 8.0 grams per kilowatt-hour (g/kW-hr).

40 CFR §60.4233(a) and 40 CFR §1054.105

**Compliance Method:** The permittee shall demonstrate compliance with this emission limitation by assuring compliance with Conditions E19-1, E19-2, and E19-8.

**E19-7.** This source is subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40 CFR Part 60, Subpart JJJ). The permittee shall comply with 40 CFR Part 60, Subpart JJJ upon startup. This source is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ). The permittee shall meet the requirements of 40 CFR 63, subpart ZZZZ by meeting the requirements of 40 CFR 60, subpart JJJJ. No further requirements apply for this engine under 40 CFR 63, subpart ZZZZ. TAPCR 1200-03-09-.03(8)

**E19-8.** Pursuant to 40 CFR §60.4243(a), the permittee must comply by purchasing an engine certified to the emission standards in §60.4231(a), for the same engine class and maximum engine power. In addition, the permittee must meet one of the requirements specified in (1) and (2) of this condition. TAPCR 1200-03-09-.03(8)

1. If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings
according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

(2) If the permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and you must demonstrate compliance according to the following: For each stationary SI internal combustion engine less than 100 HP, the permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required.

**E19-9.** Pursuant to 40 CFR §60.4245(a), the permittee must keep records of the information in paragraphs (1) through (4) of this condition.

1. All notifications submitted to comply with this subpart and all documentation supporting any notification.
2. Maintenance conducted on the engine.
3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR §60.4243(a)(2), documentation that the engine meets the emission standards.

**TAPCR 1200-03-09-.03(8)**

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>This bonding operation consists of twelve additive hoppers controlled by a single fabric filter dust collector (EP-70), a bonder with a feed hopper controlled by a single fabric filter dust collector (EP-71), and a blender with two hoppers controlled by a single fabric filter dust collector (EP-72). The bonder also includes ten tanks for glue storage and mixing. The glue contains trace amounts of VOC.</td>
</tr>
</tbody>
</table>

**E20-1(SM1).** The maximum bonding material input rate to the source shall not exceed 200,000 pounds on a yearly basis.

**TAPCR 1200-03-09-.01(1)(d), 1200-03-10-.02(2), and the application dated April 7, 2021.**

**Compliance Method:** Compliance shall be demonstrated by keeping records (see examples below) of the bonding material input, on a monthly basis. These records must be maintained at the source location and kept available for inspection by the Technical Secretary or representative. All data, including all required calculations, must be entered into the log no later than seven days from the end of the day for which the data is required. This log must be retained for a period of not less than five years.

**Monthly Bonding Material Input Log for the Bonder Process**

<table>
<thead>
<tr>
<th>Month / Year</th>
<th>Bonding Material Input (lbs)</th>
<th>Total Bonding Material Input (lbs/12 months)$^1$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^1$ This value is calculated from the previous column to the left, adding together the bonding material from this month and the previous 11 months.

**E20-2(SM1).** The maximum output production rate of powdered steel product from the source shall not exceed 10 tons per hour, on a monthly average basis.

**TAPCR 1200-03-09-.01(1)(d), 1200-03-10-.02(2), and the application dated April 7, 2021.**

**Compliance Method:** Compliance shall be demonstrated by keeping records (see examples below) of the powdered steel product produced, on a monthly basis. These records must be maintained at the source location and kept available for inspection by the Technical Secretary or representative. All data, including all required calculations, must be entered into the log no later than seven days from the end of the day for which the data is required. This log must be retained for a period of not less than five years.
E20-3(SM1). Particulate matter (PM) emitted from the three fabric filter dust collectors, controlling the bonding operations shall not exceed the following allowable emission rates:

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Design Flow Rate (dscf/min)</th>
<th>PM Emission Limit (gr/dscf)</th>
<th>PM Emission Limit (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-70</td>
<td>3,200</td>
<td>0.01</td>
<td>0.27</td>
</tr>
<tr>
<td>EP-71</td>
<td>33,800</td>
<td>0.005</td>
<td>1.45</td>
</tr>
<tr>
<td>EP-72</td>
<td>33,800</td>
<td>0.005</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Compliance Method: The permittee shall assure compliance with the particulate matter emission limitation by keeping the pressure drop across each dust collector equal to or greater than 0.3 inches of water column. The pressure drop for each dust collector shall be recorded once daily when the source is in operation. The days when the source does not operate shall be noted. For lower pressure drop reading(s) resulting from filter replacement, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow filter replacement provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from filter replacement.

E20-4(SM1). Volatile organic compounds (VOC) emitted from this source shall not exceed 5.0 tons per year.

Compliance Method: The potential to emit volatile organic compounds from this source is less than five tons per year. In accordance with TAPCR 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit a compliance certification for volatile organic compounds from this source annually.

E20-5(SM1). Visible emissions from this source (83-0129-48) shall not exceed ten percent opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6-minute average).

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Appendix 8.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.
ATTACHMENT 1

OPACITY MATRIX DECISION TREE for

VISIBLE EMISSION EVALUATION METHOD 9
dated June 18, 1996
amended September 11, 2013
Notes:
PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA’s Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO₂, NOₓ, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declares non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards:
EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996
Amended September 11, 2013

Decision Tree PM for Opacity for Sources Utilizing EPA Method 9*

- Is Emission Unit an Equipment Leak?
  - Yes: No opacity reading required
  - No

- Natural Gas or No. 2 Oil-fired Combustion Source?
  - Yes: No opacity reading required
  - No

- Is Each Allowable Emission less than or equal to 10 TPY?
  - Yes: No opacity reading required
  - No

- Is Each Allowable Emission greater than 10 TPY from Colorless Pollutants (e.g. Colorless VOCs, CO, HCl, HF, Ammonia, or Methane)?
  - Yes: No opacity reading required
  - No

- Within one year following Title V permit issuance date conduct an initial 30-minute VEE during normal process operation

- Is the highest 6-minute average** less than or equal to 50% of the applicable opacity standard (e.g. 10% opacity for a source having a 20% standard)?
  - Yes: Within one year prior to Title V permit expiration date conduct another 30-minute VEE during normal process operation
  - No

- Is the highest 6-minute average** less than or equal to 100% of the applicable opacity standard (e.g. 10% opacity for a source having a 20% standard)?
  - Yes: Conduct VEEs Semi-annually
  - No

- Conduct 30-minute VEEs monthly

- Is the highest 6-minute average** greater than or equal to the applicable opacity standard & out of compliance taking both round & reader error into consideration?
  - Yes: Have 3 consecutive month VEEs highest 6-minute average** been less than the applicable opacity standard?
  - No

Report deviations from Permit requirements in periodic reports and periodic compliance certifications as required by the Major Source Operating Permit.
**TITLE V FEE SELECTION**

Type or print and submit to the email address above.

### FACILITY INFORMATION

1. **Organization’s legal name and SOS control number** [as registered with the TN Secretary of State (SOS)]

2. **Site name** (if different from legal name)

3. **Site address** (St./Rd./Hwy.)
   - County name
   - City
   - Zip code

4. **Emission source reference number**

5. **Title V permit number**

### FEE SELECTION

This fee selection is effective beginning January 1, _______. When approved, this selection will be effective until a new Fee Selection form is submitted. Fee Selection forms must be submitted on or before December 31 of the annual accounting period.

6. **Payment Schedule (choose one):**
   - Calendar Year Basis (January 1 – December 31) ☐
   - Fiscal Year Basis (July 1 – June 30) ☐

7. **Payment Basis (choose one):**
   - Actual Emissions Basis ☐
   - Allowable Emissions Basis ☐
   - Combination of Actual and Allowable Emissions Basis ☐

8. If Payment Basis is “Actual Emissions” or “Combination of Actual and Allowable Emissions”, complete the following table for each permitted source and each pollutant for which fees are due for that source. See instructions for further details.

<table>
<thead>
<tr>
<th>Source ID</th>
<th>Pollutant</th>
<th>Allowable or Actual Emissions</th>
<th>If allowable emissions: Specify condition number and limit.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source ID</td>
<td>Pollutant</td>
<td>Allowable or Actual Emissions</td>
<td>If allowable emissions: Specify condition number and limit. If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CONTACT INFORMATION (BILLING)**

<table>
<thead>
<tr>
<th>9. Billing contact</th>
<th>Phone number with area code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing address</td>
<td>Fax number with area code</td>
</tr>
</tbody>
</table>

City
State
Zip code
Email address

**SIGNATURE BY RESPONSIBLE OFFICIAL**

Based upon information and belief formed after reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in the submittal is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

10. Signature
Date

Signer’s name (type or print)
Title
Phone number with area code
ATTACHMENT 3

Hoeganaes Corporation

CAM Plan
December 2018