

PUBLIC NOTICE

Nemak USA, Inc. has applied to the Division of Air Pollution Control for a significant modification to an existing major source operating permit subject to the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations. They seek to obtain a significant modification to a major source operating permit to add emission sources for the thermal Sand Reclamation System and for changes to emission location of the four degassing stations. The existing Title V operating permit subject to the modification is identified as follows: Division identification number 22-0072/563240. The process emission sources affected by the modification are identified as follows: 22-0072-65 condition E28-3 and 22-0072-76 conditions E38-1 through E38-9. This significant modification is conducted pursuant to subpart 1200-03-09-.02(11)(f)5(iv) of the Tennessee Air Pollution Control Regulations. Only the portions of the Title V permit affected by the significant modification are open to comment during the notice period.

EPA has agreed to treat this draft Part 70 permit as a proposed Part 70 permit 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. 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. Whether EPA's 45-day review period is performed concurrently with the public comment period or after the public comment period has ended, the deadline for citizen's petitions to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended (*i.e.*, sequentially). 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:

<http://www2.epa.gov/caa-permitting/caa-permitting-epas-southeastern-region>

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

Dickson County Public Library  
206 Henslee Drive  
Dickson, TN 37055  
615-446-8293  
Tamara Hammer, Library Director

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

Also, if you require a copy of the draft permit, it is available electronically by accessing the TDEC internet site located at:

<http://www.tn.gov/environment/topic/ppo-air>

Interested persons are invited to review these materials and comment on the proposed facility. 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 made within thirty (30) days of the date of this notice and should be addressed to Michelle W. Owenby., Director, TN Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243. A final determination will be made after consideration of all relevant comments and other available information. Questions concerning this source may be addressed to Mr. J. Swinea at the same address, or by calling (615) 532-0639.

Individuals with disabilities who wish to participate in these proceedings (or to review these filings) should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such participation. 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 thirty (30) day public comment period to allow time to provide such aid or service. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 2<sup>nd</sup> Floor, Nashville, Tennessee 37243, 1 (866) 253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1 (800) 848-0298.

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For "*The Dickson Herald*"-- publish once during the time period of September 2 2016 through September 12, 2016.

Air Pollution Control

DATE: September 1, 2016

Assigned to – Jerry Swinea

**No alterations to the above are allowed:**

Air Pollution Control must be furnished with an affidavit from the newspaper stating that the ad was run and the date of the ad or one complete sheet from the newspaper showing this advertisement, the name of the newspaper and the date of publication. Mail to Jerry Swinea, TN Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243



**Significant Modification 1 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. The permittee has been granted permission to operate an air contaminant source in accordance with emission limitations, monitoring requirements set forth herein.

**Date Issued:** May 6, 2014

**Permit Number:**

**Date of Modification 1:** May 22, 2015

563240

**Date of Modification 2:** September XX 2016

**Date Expires:** May 5, 2019

**Issued To:**

Nemak USA, Inc.

**Installation Address:**

1635 Old Columbia Road

Dickson

**Installation Description:**

**Aluminum Foundry: Production of Cast Aluminum Cylinder Heads for Automobile Engines:**

**Area 01. Aluminum Melting:**

- 41: Melting Hearth Furnaces 151 and 152;
- 43: 50 Ton Holding Furnace 101 and Pumping Station 1;
- 44: 50 Ton Holding Furnace 102 and Pumping Station 2;
- 45: 50 Ton Holding Furnace 103 and Pumping Station 3.

**Area 02. Sand Core Production:**

- 46: Hot Box Machines 1 and 2;
- 47: Core Making, Sand Core Blowers;

**Area 03. Aluminum Casting:**

49 through 57, 59, 60 & 62: Pouring Stations 1 through 12 and each with an associated Holding Furnace, Numbers 1 through 12.

**Area 04. Finishing:**

65: Core Shakeout with Baghouse

**Area 05. Heat Treating:**

67: Heat Treat Furnace with Cyclones

**Area 06. Sand Reclaim and Storage:**

69: Sand Reclamation Unit #1 with Metal Separator #2;

70: 3 Sand Storage Silos;

71: Pneumatic Sand Transport (Core Line Sand Transport #1);

73: 50-Ton Sand Silo #7 and Day Bin with Baghouse

**Emergency Generator:**

75: Diesel-Fired Internal Compression Ignition Engine -Generator (230 kW), 355 hp

**NSPS Subpart UUU & MACT Subpart ZZZZ**

**Emission Source Reference No.:** 22-0072

**Renewal Application Due Date:**

Between August 6, 2018 and November 6, 2018

**Primary SIC: 33**

**Information Relied Upon:**

Renewal Permit Application dated December 7, 2009

Revision to the Renewal Permit Application dated April 19, 2011

Administrative Amendment request dated July 28, 2014

Minor modification applications dated July 30, 2014, November 3, 2014, February 9, 2015 and May 13 2016

Significant modification#1 application dated May 13, 2015

(Continued on the next page)

TECHNICAL SECRETARY

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**

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**END OF PERMIT 563240**

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<b>ATTACHMENT 4</b>	<b>Permit Shield</b>	<b>2 pages</b>
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**SECTION A**

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**GENERAL PERMIT CONDITIONS**

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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 major source emission fee based upon the responsible official's choice of actual emissions or allowable emissions. 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 major source annual emission fee will not be charged for emissions in excess of the cap (s) or for carbon monoxide.

(b) Major sources who have filed a timely, complete operating permit application in accordance with 1200-03-09-.02(11), shall pay allowable emission based fees until the beginning of the next annual accounting period following receipt of their major source operating permit. At that time, the permittee shall begin paying their annual emission fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees as stated under SECTION E of this permit. Once permitted, altering the existing choice shall be accomplished by a written request of the major source, filed in the office of the Technical Secretary at least one hundred eighty days prior to the expiration or reissuance of the major source operating permit.

(c) Major sources must conform to the following requirements with respect to fee payments:

1. If a major source choosing an allowable based annual emission fee wishes to restructure its allowable emissions for the purposes of lowering its annual emission fees, a mutually agreed upon, more restrictive regulatory requirement may be established to minimize the allowable emissions and thus the annual emission fee. The more restrictive requirement must be specified on the permit, and must include the method used to determine compliance with the limitation. The documentation procedure to be followed by the major source must also be included to insure that the limit is not exceeded. Restructuring the allowable emissions is permissible only in the annual accounting periods of eligibility and only, if the written request for restructuring is filed with the Technical Secretary at least 120 days prior to the beginning of the annual accounting period of eligibility. These periods of eligibility occur upon expiration of the initial major source operating permit, renewal of an expired major source operating permit or reissuance of a major source operating permit.

2. Major sources paying on allowable based emission fees will be billed by the Division no later than April 1 prior to the end of the accounting period. The major source annual emission fee is due July 1 following the end of the accounting period.

3. Major sources choosing an actual based annual emission fee shall file an actual emissions analysis with the Technical Secretary which summarizes the actual emissions of all regulated pollutants at the air contaminant sources of their facility. Based upon the actual emissions analysis, the source shall calculate the fee due and submit the payment and the analysis each July 1st following the end of the annual accounting period.

4. Major sources choosing a mixture of allowable and actual based emission fees shall file an actual emissions and allowable emissions analysis with the Technical Secretary which summarizes the actual and allowable emissions of all regulated pollutants at the air contaminant sources of their facility. Based upon the analysis, the source shall calculate the fee due and submit the payment and the analysis each July 1st following the end of the annual accounting period.

The mixed based fee shall be calculated utilizing the 4,000 ton cap specified in subparagraph 1200-03-26-.02(2)(i). In determining the tonnages to be applied toward the regulated pollutant 4,000 ton cap in a mixed based fee, the source shall first calculate the actual emission based fees for a regulated pollutant and apply that tonnage toward the regulated pollutant's cap. The remaining tonnage available in the 4,000 ton category of a regulated pollutant shall be subject to allowable emission based fee calculations for the sources that were not included in the actual emission based fee calculations. Once the 4,000 ton cap has been reached for a regulated pollutant, no additional fee shall be required.

5. Major sources choosing to pay their major source annual emission fee based on actual based emissions or a mixture of allowable and actual based emissions may request an extension of time to file their emissions analysis with the Technical Secretary. The extension may be granted by the Technical Secretary up to ninety (90) days. The request for extension must be postmarked no later than July 1 or the request for extension shall be denied. The request for extension to file must state the reason and give an adequate explanation.

An estimated annual emission fee payment of no less than eighty percent (80%) of the fee due July 1 must accompany the request for extension to avoid penalties and interest on the underpayment of the annual emission fee. A remaining balance due must accompany the emission analysis. If there has been an overpayment, a refund may be requested in writing to the Division or be applied as a credit toward next year's major source annual emission fee. The request for extension of time is not available to major sources choosing to pay their major source annual emission fee based on allowable emissions.

**6.** Newly constructed major sources or minor existing sources modifying their operations such that they become a major source in the midst of the standard July 1st to June 30th annual accounting period, shall pay allowable based annual emission fees for the fractional remainder of the annual accounting period commencing upon their start-up. At the beginning of the next annual accounting period, the "responsible official" of the source may choose to pay annual emission fees based on actual or allowable emissions or a mixture of the two as provided for in this rule 1200-03-26-.02.

**(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 standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31 will place such regulated emissions in the specific hazardous air pollutant under regulation. If the pollutant is also in the family of volatile organic compounds or the family of particulates, the pollutant shall not be placed in that respective family category.

**2.** A miscellaneous category of hazardous air pollutants shall be used for hazardous air pollutants listed at part 1200-03-26-.02(2)(i)12 that do not have an allowable emission standard. A pollutant placed in this category shall not be subject to being placed in any other category such as volatile organic compounds or particulates.

**3.** Each individual hazardous air pollutant and the miscellaneous category of hazardous air pollutants is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

**4.** Major sources that wish to pay annual emission fees for PM<sub>10</sub> on an allowable emission basis may do so if they have a specific PM<sub>10</sub> allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM<sub>10</sub> emission basis, it may do so if the PM<sub>10</sub> actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM<sub>10</sub> 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<sub>10</sub> 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<sub>10</sub> emissions.

TAPCR 1200-03-26-.02 (3) and (9) and 1200-03-09-.02(11)(e)1(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)1(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 his 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)3.(ii)

**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) Provided that 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)3 and 2, 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.**

(a) 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).** The permittee shall comply with the requirement to submit to the Administrator or designated State Agency a risk management plan, including a registration that reflects all covered processes, by June 21, 1999, if the permittee's facility is required pursuant to 40 CFR, 68, to submit such a plan.



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**SECTION B**

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

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**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)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 and EPCRA Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303
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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 shown below to assist the Technical Secretary in deciding whether to excuse or validate the violation. 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 consideration of excusal for malfunctions.

TAPCR 1200-03-20-.06(2), (3) and (4)

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## SECTION C

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### PERMIT CHANGES

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**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.

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

**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)

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## SECTION D

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### GENERAL APPLICABLE REQUIREMENTS

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**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 his representative upon his 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, oil, 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 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.

Revised 10/2011

Revised: March 3, 2016

**SECTION E**

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

**22-0072**      **Facility Description:**      Nematik USA, Inc. manufactures aluminum castings and cylinder heads for motor vehicles.

Conditions **E1** through **E3-5** apply to all sources in Section E of this permit unless otherwise noted.

**E1.      Fee payment: Actual Emissions Basis.**

**FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 22-0072**

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	N/A	AEAR	Includes all fee emissions.
PM <sub>10</sub>	N/A	AEAR	Included in PM.
SO <sub>2</sub>	N/A	AEAR	Includes all fee emissions.
VOC	N/A	AEAR	Does not include all fee emissions.
NO <sub>x</sub>	N/A	AEAR	Includes all fee emissions.
<b>CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAP WITHOUT A STANDARD)* VOC</b>			
FAMILY GROUP	N/A	AEAR	Fee emissions are included in VOC above.
NON-VOC GASEOUS GROUP	N/A	AEAR	Fee emissions are not included above
PM FAMILY GROUP	N/A	AEAR	Fee emissions are included in PM above.
<b>CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAP WITH A STANDARD)** VOC FAMILY GROUP</b>			
NON-VOC GASEOUS GROUP	N/A	N/A	N/A
PM FAMILY GROUP	N/A	N/A	N/A
<b>CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***</b>			
EACH NSPS POLLUTANT NOT LISTED ABOVE	N/A	N/A	

**NOTES**

**AAP**      The **Annual Accounting Period (AAP)** is a twelve (12) consecutive month period that **begins each July 1st and ends June 30th of the following year.** The present Annual Accounting Period began July 1, 2013 and ends June 30, 2014. The next Annual Accounting Period begins July 1, 2014 and ends June 30, 2015.

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

**AEAR**      AEAR indicates that an Actual Emissions Analysis is Required to determine the actual emissions of:  
 (1)      **each regulated pollutant** (Particulate matter, SO<sub>2</sub>, VOC, NO<sub>x</sub> and so forth. See TAPCR 1200-3-26-.02(2)(i) for the definition of a regulated pollutant.),  
 (2)      **each pollutant group** (VOC Family, Non-VOC Gaseous, and Particulate Family), and  
 (3)      **the Miscellaneous HAP Category**  
 under consideration during the **Annual Accounting Period.**

\*      **Category Of Miscellaneous HAP (HAP Without A Standard):**      This category is made-up of hazardous air pollutants that do not have a federal or state standard. Each HAP is classified into one of three groups, the **VOC 25Family group, the Non-VOC Gaseous group, or the Particulate (PM) Family group.** **For fee computation,** the **Miscellaneous HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

\*\* **Category Of Specific HAP (HAP With A Standard):** This category is made-up of hazardous air pollutants (HAP) that are subject to Federally promulgated Hazardous Air Pollutant Standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31. Each individual hazardous air pollutant is classified into one of three groups, the **VOC Family** group, the **Non-VOC Gaseous** group, or the **Particulate (PM) Family** group. **For fee computation**, each individual hazardous air pollutant of the **Specific HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(I).

\*\*\* **Category Of NSPS Pollutants Not Listed Above:** This category is made-up of each New Source Performance Standard (NSPS) pollutant whose emissions are not included in the **PM, SO<sub>2</sub>, VOC** or **NO<sub>x</sub>** emissions from each source in this permit. **For fee computation**, each **NSPS pollutant not listed above** is subject to the 4,000 ton cap provisions of subparagraph 1200-3-26-.02(2)(i).

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**END NOTES**

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**The permittee shall:**

(1) Pay annual allowable based emission fees for the present Annual Accounting Period which ends **June 30, 2014**.

(2) Pay major source annual **actual based emission fees**, as requested by the responsible official, beginning July 1, **2014** of the **next annual accounting period**

(3) Prepare an **actual emissions analysis** beginning July 1, **2013** in accordance with the above **Fee Emissions Summary Table**. The **actual emissions analysis** shall include:

(a) the completed **Fee Emissions Summary Table**,

(b) each **AEAR** required by the above **Fee Emissions Summary Table**, and

(c) the records required by the following conditions of this permit. These records shall be used to complete the **AEARs** required by the above **Fee Emissions Summary Table**. Fee conditions are as specified below:

**E3-3, E3-5, E4-1, E4-2, E4-3, E4-4, E6-1, E6-2, E6-3, E6-4, E7-1, E7-2, E7-3, E8-1, E8-3, E9-1, E9-2, E9-3, E10-1, E10-2, E10-3, MM1-E12-1, MM1-E12-2, E12-3, E28-1, E28-2, SM1-E28-3, E30-1, E30-2, E30-4, E30-5, E32-1, E32-3, E33-1, E34-1, E36-1, E37-5 and E37-6.**

(4) Submit the **actual emissions analysis** at the time the fees are paid in full.

(5) Calculate the fee due based upon the **actual emissions analysis**, and submit the payment on July 1st following the end of the **annual accounting period**. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Major sources may request an extension of time to file their emissions analysis with the Technical Secretary as specified in Condition A8(c)5 of this permit. 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 shall be submitted to The Technical Secretary at the address listed below:**

TN Department of Environment & Conservation  
 Division of Fiscal Services  
 Consolidated Fee Section– APC (22-0072) William R.  
 Snodgrass Tennessee Tower  
 312 Rosa L. Parks Avenue, 10<sup>th</sup> Floor  
 Nashville, TN 37243

TAPCR 1200-03-26-.02 (3) and (9), and 1200-03-9-.02(11)(e)1 (iii) and (vii)

## **E2. Reporting requirements**

**(a) Semiannual reports** The first report since issuance of this permit renewal shall cover the 6-month period from **April 1, 2014 to September 30, 2014** and shall be submitted within 60 days after the 6-month period ending **September 30, 2014**. Subsequent reports shall be submitted within 60 days after the end of each 6-month period following the first report. Semiannual

reports for this facility (22-0072) shall include:

- (1) Reports of any monitoring and recordkeeping required by Conditions **E3-4, E4-1, E4-3, E4-4, E4-5, E6-1, E6-3, E6-4, E7-1, E7-3, E8-1, E8-3, E9-2, E9-3, E10-1, E10-2, E10-3, MM1-E12-1, MM1-E12-2, E28-1, E30-1, E30-2, E30-3, E30-4, E32-1, E32-3, E33-1, E34-1, E36-1, E37-5, and E37-6** 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 Conditions **E3-1** and **E32-8** 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 and Nashville Environmental Field Office at the addresses as indicated below:**

Title V Semiannual reports (SAR) and Title V Annual Compliance Certification (ACC) shall be submitted to:

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

**Or Electronically submitted to:  
 APC.NashEFO@tn.gov**

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

**(b) 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):

- (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;
- (3) Whether such method(s) or other means provide continuous or intermittent data. 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;

(4) 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 E2(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\*\* as defined below occurred; and

(5) 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.

The first certification since issuance of this permit renewal shall cover the 12-month period from **October 1, 2013** to **September 30, 2014** and shall be submitted within 60 days after the 12-month period ending **September 30, 2014**. Subsequent certifications shall be submitted within 60 days after the end of each 12-month period following the first certification.

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

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

and U. S. EPA Region 4  
ATTN: Air and EPCRA Enforcement Branch  
61 Forsyth Street, SW Atlanta,  
Georgia 30303

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol.62, No.204, October 22, 1997, pages 54946 and 54947

**(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 his representative.

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

**E3. General Permit Requirements**

**E3-1.** Unless otherwise specified, visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) 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-.01(1) and 1200-03-05-.03(6)

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended August 16, 2013 that is enclosed as **Attachment 1**. Reports and certifications shall be submitted in accordance with Condition **E2** of this permit.

**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.** Purchase orders and invoices for all VOC and HAP containing materials along with material safety data sheets must be maintained and kept available for inspection by the Technical Secretary or his representative. These records must be retained for a period not less than five years.

**E3-3.** For fee purposes, record keeping for VOCs and HAPs not covered under each source specific sections shall include the information in the logs A and B in this condition, as appropriate:

(1) Emissions in tons of each Hazardous Air Pollutant, (2) Emissions in tons of all Hazardous Air Pollutants, and (3) Emissions in tons of VOCs excluding water and/or exempt compounds, for emissions during the annual accounting period (each July 1 through the following June 30) all input materials used during all intervals of 12 consecutive months. A log of the information contained in the sample log below must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. Records shall also be retained to verify the HAP content of each material. This may include MSDS, formulated data, or other documentation to establish the HAP content. This log must be retained for a period of not less than five years. **All data, including all required calculations, must be entered in the log no later than 30 days from the end of the month for which the data is required.**

**LOG A – SAMPLE YEARLY LOG FOR FEE PURPOSES - SOURCE 22-0072**

Month / Year	VOC Emissions Tons per Month	HAP 1 Emissions Tons per Month	HAP 2 Emissions Tons per Month	Total HAP Emissions Tons per Month
<b>Total for the accounting period July through June</b>				

**E3-4.** For those sources 22-0072-41, 43, 44, 45, and 49 which must maintain daily records of the amount of aluminum processed for compliance assurance purposes, the logs must contain the following information:

**LOG B- SAMPLE MONTHLY LOG FOR SOURCE 22-0072**

DATE	OPERATING HOURS	INPUT/OUTPUT RATE	DATE	OPERATING HOURS	INPUT/OUTPUT RATE
1			16		
2			17		
3			18		
4			19		
5			20		
6			21		
7			22		
8			23		
9			24		
10			25		
11			26		
12			27		
13			28		
14			29		
15			30		
			31		
For _____, 20_____				Material Type _____	

The logs for those sources which are operated 24 hours per day may simply contain a written statement to this effect. However, records must be kept which include the number of hours the source is operated if it is not operated 24 hours per day (equipment shutdowns for malfunction, maintenance, etc.), and calculations performed to determine emissions must utilize the appropriate number of operating hours.

**E3-5. Plant-wide emissions from Natural Gas combustion for Fee purposes:**

TAPCR 1200-03-26-.02(9)(b)

The following logs are for the calculation of the emissions from plant wide Natural Gas combustion. These emissions shall be calculated from the emission factors provided in Tables 1.3-1, 1.3-2, 1.4-1, and 1.4-2 of EPA AP-42, 5<sup>th</sup> Edition. (see Attachment 2)

**MONTHLY FUEL USAGE LOG FOR FOR FEE PURPOSES**

MONTH/YEAR	Natural Gas Usage (cubic feet per month)

**ANNUAL EMISSIONS LOG (FOR FEE ACCOUNTING PERIOD OF JULY 1, 2001 TO JUNE 30, 2012)**

Month/Year (Fee Accounting Period is July 1 to June 30 of the following year)	SO <sub>2</sub> (tons per year)	NO <sub>x</sub> (tons per year)	VOCs (tons per year)
July, year			
Sum July/Year – June/Year+1			

**THE METHOD OF CALCULATION FOLLOWS:**

**ANNUAL EMISSIONS CALCULATIONS FOR NATURAL GAS COMBUSTION:**

- SO<sub>2</sub> emissions, tons per year = (annual gas usage, millions of cubic feet) (0.6 pounds per million cubic feet) / (2000 Pounds/ton)
- VOC emissions, tons per year = (annual gas usage, millions of cubic feet) (5.5 pounds per million cubic feet) / (2000 Pounds/ton)
- NO<sub>x</sub> emissions, tons per year = (annual gas usage, millions of cubic feet) (100 pounds per million cubic feet) / (2000 Pounds/ton)

(The above NO<sub>x</sub> factor is valid for all combustion sources except for source 22-0072-43, Aluminum Melting / Holding Furnace #101)

For source 22-0072-43 Aluminum Melting / Holding Furnace #101 (only) , the following calculation shall be used to determine the NO<sub>x</sub> emissions as noted in condition E6-4 :

NO<sub>x</sub> emissions, tons per year = (annual gas usage, millions of cubic feet) (1020 btu/cubic foot of natural gas) (0.125 lb NO<sub>x</sub>/mmbtu ) / (2000 Pounds/ton)

**E3-6.** Attachment 4 of this permit contains a list of federal and state requirements which the Tennessee Division of Air Pollution Control has specifically identified as not applicable to this facility.

**E3-7.** All data, including all required calculations, must be entered in the log no later than 30 days from the end of the month for which the data is required. Also, All data, including all required calculations, must be entered in the log no later than 7 days from the end of the day for which the data is required.

**E3-8.** The TAPCD has determined that, under certain circumstances, the permittee may accept castings which have been returned by an off-site machining contractor which is not the final customer, without becoming subject to 40 CFR 63 Subpart RRR—National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production. In order to qualify for this consideration, the company must follow the procedures outlined in the Division’s letter dated August 12, 2013 to the permittee as found in **Attachments 5 and 6** of this permit.

**E3-9.** The facility shall comply with the provisions of the Compliance Assurance Monitoring (CAM) plan, based on the provisions of 40 CFR 64, included as **Attachment 7** of this permit. The following sources are included on the CAM plan:

Source No. 22-0072	Source Description	Control Device	Controlled Pollutant
47	Core Making, Sand Core Blowers	Packed Bed (Acid) Scrubber	VOC Catalyst (may be present as Dimethylisopropyl Amine- DMIPA)*
65	Core Shakeout with Baghouse	Baghouse	Particulate
69	Sand Reclamation Unit with Metal Separator #2	Baghouse	Particulate
71	Pneumatic sand Transport (Core Line sand Transport #1)	Baghouse	Particulate

\* Packed bed scrubber will control only those VOC compounds that can be neutralized by exposure to acid

**E3-10.** This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application. TAPCR 1200-03-09.

**E3-11.** This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards. TAPCR 1200-03-09.

**E3-12.** Identification of Responsible Official, Technical Contact, and Billing Contact

a) The application that was utilized in the preparation of this permit is dated May 13, 2015 and a letter dated July 15, 2016, signed by Responsible Official Ryan Hudgins, Plant Manager 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 (30) 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 application that was utilized in the preparation of this permit is dated May 13, 2015 and a letter dated July 15, 2016 identifies Charles Burgess, Facility Manager 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 (30) 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 application that was utilized in the preparation of this permit is dated May 13, 2015 and a letter dated July 15, 2016 identifies Ryan Hudgins Plant Manager -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 (30) days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

E3-13. The following requirements shall apply to all recordkeeping:

- (a) For all monthly logs, all data, including all required calculations, must be entered in the log no later than thirty (30) days from the end of the month for which the data is required.
- (b) For all weekly logs, all data, including all required calculations, must be entered in the log no later than seven (7) days from the end of the week for which the data is required.
- (c) For all daily logs, all data, including all required calculations, must be entered in the log no later than seven (7) days from the end of the day for which the data is required.
- (d) All maintenance activities required by **Condition** Error! Reference source not found. (including any ongoing maintenance that has not been completed) shall be entered in the maintenance log no later than seven (7) days following the start of the maintenance.

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

**SECTION II: SOURCE SPECIFIC CONDITIONS**

**22-0072-41 Aluminum Foundry- Production of Cast Aluminum Cylinder Heads for Automobile Engines:**  
 Source #01-1; Two Natural Gas Fired (8.4 MM Btu/hr each Furnace) Melting Hearth Furnaces #151 and #152, Stacks S3 and S17-  
 Former Emission Source Reference Number 22-0072-14

E4-1. Particulate matter emitted from both melting hearth furnaces #151 and #152 shall not exceed **3.9** pounds per hour (total). Additionally, PM10 emissions shall not exceed 14.9 tons over any consecutive 12-month period.

This restriction was taken to avoid **PSD** review based on TAPCR 1200-03-07-.01(5) and agreement letter dated December 20, 2006 from the permittee.

**For compliance and fee purposes:** Compliance assurance is based on stack testing (the test conducted December 3, 1996 showed a particulate emission rate of **1.57** pounds per hour, corresponding to an emission factor of **0.34** pound of particulate per ton of scrap aluminum processed and the test conducted October 1, 2006 showed a particulate emission rate of **0.66** pounds per hour, corresponding to an emission factor of **0.52** pound of particulate per ton of ingot processed). The permittee shall keep Log #1, or another log format, which provides the same information, which includes a daily record of operating time, type of aluminum processed and the material process rate for both furnaces for each day of operation. This record must be retained for a period of not less than five (5) years. **All data, including all required calculations, must be entered in the log no later than 30 days from the end of the day for which the data is required.**

**Note:** When Scrap is melted, the emission factor of **0.34** pounds of particulate matter per ton of scrap aluminum processed shall be used. When Ingot is melted the emission factor of **0.52** pounds of particulate matter per ton of ingot aluminum processed shall be used. **When a mixture of Scrap and Ingot is melted together in one furnace, the worst case emission factor of 0.52 pounds of particulate matter per ton of aluminum processed shall be utilized.**

**LOG #1 - MONTHLY LOG FOR PARTICULATE EMISSIONS CALCULATIONS - SOURCE 22-0072-41**

MONTH: \_\_\_\_\_ YEAR: \_\_\_\_\_

DATE	<b>Operating Hours per Day</b> (hours in one day when at least one unit is operating; for example, if both furnaces are operating between 2:00 pm and 3:00 pm , that would count as one hour)	<b>Scrap Process Rate, Tons per Day for both Furnaces combined</b>	<b>Ingot or Ingot and Scrap Mixture Process Rate, Tons per Day for both Furnaces combined</b>
1			
2			
3			
4			
31			
Monthly Total			

**Calculation of Monthly Emissions:**

(Tons of Scrap processed per month) (Scrap Emission Factor) = Pounds per Month of PM from Scrap Processing

(Tons of Ingot processed per month) (Ingot Emission Factor) = Pounds per Month of PM from Ingot Processing

Total Monthly PM Emissions = (Total Pounds per Month of PM emissions from Scrap Processing + Pounds per Month of PM emissions from Ingot Processing ) ÷ 2000

**The total tons per Month of PM emissions value used above shall be used in log #2.**

**Tons per Month of PM \_\_\_\_\_ (this value determined in the above calculations for Scrap + Ingot)**

**Calculation of Hourly Emissions:**

Average pounds per hour of PM Emission = (Total monthly PM Emissions x 2000) ÷ Total monthly hours when at least one furnace was operational

**Monthly Average Pounds per Hour \_\_\_\_\_**

**Calculations of Total Monthly Input for All Materials (this data will be utilized in Log #3)**

Total Monthly Input Rate = Tons of Scrap processed per Month + Tons of Ingot processed per Month

**Note:** The logs for furnaces, which are often operated 24 hours per day may contain a written statement to this effect. However, records must be kept which include the number of hours the source is operated if it is not operated 24 hours per day (equipment shutdowns for malfunction, maintenance, etc.), and calculations performed to determine emissions must utilize the appropriate number of operating hours. **Compliance with the PM<sub>10</sub> 14.9 tons over any consecutive 12-month period shall be determined from data in Log #2 (using particulate matter factors) or another log which provides the same information.**

**Log #2 - Consecutive 12-Month period for Particulate Matter Emissions - SOURCE 22-0072-41**

Month, Year	Total PM emissions per Month, tons	Total PM emissions per consecutive 12-month period

The Tons per 12 Month value is the sum of the PM emissions in the 11 months preceding the month just completed + the PM emissions 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 tons per month. For the second month it will be the sum of the first month and the second month. Indicate in parentheses the number of months summed [i.e., 6 (2) represents 6 tons emitted in 2 months].

Calculations of monthly PM emissions and the associated calculations of the twelve consecutive month PM emissions must be entered in the log no later than 30 days from the end of the month for which the data is required. PM10 emissions are assumed to be equivalent to PM emissions as calculated above.

**The following definitions of Ingot and Scrap shall be used:**

**Ingot** shall be defined as a mass of metal cast into a convenient shape for storage or transportation to be processed later.

**Scrap** shall be defined as follows (any of the three terms below):

**Customer returns** means any aluminum product which is returned by a customer to the aluminum company that originally manufactured the product prior to resale of the product or further distribution in commerce, and which contains no paint or other solid coatings (*i.e.*, lacquers).

**Internal scrap** means all aluminum scrap regardless of the level of contamination which originates from castings or extrusions produced by an aluminum die casting facility, aluminum foundry, or aluminum extrusion facility, and which remains at all times within the control of the company that produced the castings or extrusions.

**Runaround scrap** means scrap materials generated on-site by aluminum casting, extruding, rolling, scalping, forging, forming/stamping, cutting, and trimming operations and that do not contain paint or solid coatings. Uncoated/unpainted aluminum chips generated by turning, boring, milling, and similar machining operations may be included if they have been thermally dried or treated by a centrifugal cleaner.

**Note:** Although this facility is not subject to Subpart RRR National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production, the above definitions (with slight modifications to address this specific source) are being used.

**E4-2.** Sulfur dioxide emitted from both melting hearth furnaces #151 and #152 shall not exceed 0.2 pound per hour (total).

TAPCR 1200-03-14-.01(3)

**Compliance Method:** The potential to emit sulfur dioxide from this process emission source is less than five tons per year. 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 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for sulfur dioxide emissions from the melting hearth furnaces #151 and #152.

**Fee calculations:** shall be determined from condition E3-5.

**E4-3.** Volatile Organic Compounds emitted from both melting hearth furnaces #151 and #152 combined shall not exceed 11.1 tons (22,200 pounds) over any consecutive 12-month period.

**TAPCR 1200-03-09-.01(4) - This restriction was taken to avoid PSD review.**

**Compliance Method and Fee Calculations:** Compliance assurance is based on stack testing (a source specific emission factor of 0.13 lb/ton of scrap aluminum processed was developed based on stack testing conducted on November 17-18, 1994). The permittee shall keep **Log #3** or another log, which includes the total amount of materials processed on a monthly basis.

VOC Emissions shall be calculated from the following equation:

$$\text{Monthly VOC Emissions} = (\text{Total Tons of Input Material Processed for Month}) (0.13 \text{ lbs VOC per ton of material}) \div 2000$$

**The VOC monthly emissions calculated above shall be used for Log #3.**

**Note:** The Division has made the conservative determination to utilize the same VOC emission factor determined for scrap melting for melting ingot.

**Log #3 – MONTHLY LOG FOR VOC EMISSIONS – SOURCE 22-0072-41**

Month, year	Total Material Processed Per Month	Pounds of VOC Emissions per month	Tons of VOC Emissions per month	Tons of VOC Emissions per consecutive 12-month period

**Note:** The Tons per 12 Month value is the sum of the VOC emissions in the 11 months preceding the month just completed + the VOC emissions 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 tons per month. For the second month it will be the sum of the first month and the second month. Indicate in parentheses the number of months summed [i.e., 6 (2) represents 6 tons emitted in 2 months].

**Calculations of monthly VOC emissions and the associated calculations of the twelve consecutive month VOC emissions must be entered in the log no later than 30 days from the end of the month for which the data is required.**

**E4-4.** Nitrogen oxides emitted from this source shall not exceed **3.36** pounds per hour.

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

**Compliance Method:** Compliance assurance is based on the EPA, AP-42 emission factor of **100** pounds per million cubic feet of natural gas and the design heat input capacity of **8.4** MM Btu per hour for each furnace.

**Fee calculations : shall be determined from condition E3-5.**

**E4-5.** Carbon monoxide emitted from this source shall not exceed **2.0** pounds per hour.

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

**Compliance Method:** Compliance assurance is based on the EPA, AP-42 emission factor of **84.0** pounds per million cubic feet of natural gas and the design heat input capacity of **8.4** MM Btu per hour for each furnace.

**E4-6.** Reserved

**E4-7.** Reserved

**E4-8.** No reactive fluxing shall be used for furnaces **#151** and **#152** during melting operations at this facility. Reactive fluxing means the use of any gas, liquid, or solid flux (other than cover flux) that results in a HAP emission. Argon and nitrogen are not reactive and do not produce HAP.

**Compliance Method: By Annual Certification.**

**E4-9.** The maximum heat input rate for each furnace at this source shall not exceed **8.4** MM Btu per hour and only natural gas shall be used as fuel at this source. The Technical Secretary may require the permittee to demonstrate compliance with this limit

**E4-10.** Only Scrap and Ingot, as these terms are defined in condition E4-1 of this permit, or materials as described in condition E3-8, may be processed in Furnaces #151 and #152.

**22-0072-43:** Aluminum Melting / Holding Furnace **#101** with a melting capacity of **6.0** tons per hour and maximum heat input rate of **14.0** MM Btu/hr. Includes Pumping Station **#1 -Stacks S1a, S1b and S2**. Crucibles may be used to move aluminum from the furnace to the casting lines. Gas injected in the furnace or in the crucibles contains no HAPs. "Cover flux" may be used in the furnace or the crucibles. "Wall flux" may be used with the furnace during the periods of low fire.

Conditions **E6-1** through **E6-6** apply to source 22-0072-43.

**E6-1.** Particulate matter emitted from this source shall not exceed **5.9** pounds per hour.

TAPCR 1200-03-09-.01(4) - This restriction was taken to avoid PSD review.

**Compliance Method and Fee Calculation Method:** Compliance assurance is based on a emission factor of **0.18** pounds of pm per ton of melted aluminum obtained from testing on December 8, 1995, the equation as given below, and daily recordkeeping of the aluminum processed as specified in condition **E3-4**. Normal operation of this furnace is 24 hours per day. Recordkeeping of operating hours may simply include a statement to this effect; however, the records must include the operating hours for the source on those days in which the furnace did not operate 24 hours per day.

**Monthly Al melted (tons/month) / (hours/month) x EF (0.18 lb/ton) = Emission rate (lb/hr)**

**E6-2.** Sulfur dioxide emitted from this source shall not exceed **0.1** pounds per hour.

TAPCR 1200-03-14-.03(5)

**Compliance Method:** The potential to emit sulfur dioxide from this process emission source is less than five tons per year. 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 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for sulfur dioxide emissions from 50 ton aluminum holding furnace #101 and pumping station #1.

**Calculations for Fee purposes: compliance shall be determined from condition E3-5.**

**E6-3.** The maximum emission rates for carbon monoxide, volatile organic compounds, fluorides and HCl shall not exceed the following:

CO emissions Lb/hr	VOC* emissions tons/12 mo	Fluorides emissions Lb/hr	HCl emissions Lb/hr
<b>1.18</b>	<b>6.31</b>	<b>0.90</b>	<b>0.40</b>

\* The VOC limitation is **6.31** tons per all intervals of twelve consecutive months.

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

**Fee calculations:** Emissions of VOC are based on calculation of emissions using the equation and emission factor indicated below and the aluminum production records from condition **E3-4** of this permit. (note that VOC emissions are calculated on a 12-consecutive month basis). Emissions of CO are based on the emission factor found below and the stated maximum fuel usage rate.

**VOC emissions = tons production per 12-months x VOC factor = tons per 12-months of VOC emissions**

Air Pollutant	Emission Factor
CO	EPA, AP-42 Emission factors – Table 1.4-1 – <b>84</b> lb/MM ft3 of natural gas
VOC	<b>0.064</b> lb/ton of aluminum processed from stack test of October 13, 1994

For compliance with the fluoride and HCl emission limits, compliance is based on the use of cover flux and wall flux, as these terms are defined below. Gas injected in the molten aluminum shall not contain any HAP materials. Also, the company has calculated the maximum actual emissions for the listed below pollutants:

Total Flux Emissions:

Pollutant	Maximum Total pounds per hour of emissions
Fluorides	0.12
HCl	0.19

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

**Cover flux** is considered to be salt-like material added to the surface of molten aluminum in the furnace without agitation, for the purpose of preventing oxidation. Cover flux may be added to the crucibles outside the furnace regardless of agitation.

**Wall flux** is a salt-like material added to the walls of the furnace for the purpose of removing aluminum oxide build-up on the walls of the furnace and removed by skimming the surface of the aluminum.

Records of the type of flux used shall be maintained at this source for not less than five (5) years, and shall be made available to the Technical Secretary or his representative upon request. For fee purposes, actual fluoride and HAP emissions shall be determined on an annual (July 1 through June 30) basis (using company supplied emission factors) submitted as specified in condition **E1**.

**Monthly Al melted (tons/month) / (hours/month) x EF (lb/ton) = Emission rate (lb/hr) OR Annual Al melted**

**(tons/12-months) x EF (lb/ton) = Emission rate (tons/consecutive 12 months) Alternately, the company may elect to use the allowable emission factors for HCl and HF for fee purposes.**

**E6-4.** Nitrogen oxides (NO<sub>x</sub>) emitted from this source shall not exceed **1.75** lbs/hr and a limit of **0.125** lb NO<sub>x</sub> per MM Btu of heat input.

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

**Compliance Methods:** Compliance with the **0.125** lb NO<sub>x</sub> per MM Btu limit is based on the manufacturer's guarantee and compliance with the **1.75** lb/hr limit is based on the stated design heat input rate of **14.0** MM Btu per hour.

The permittee has specified that this unit is equipped with Low-NO<sub>x</sub> regenerative-design burners; this source shall not be operated unless the Low-NO<sub>x</sub> regenerative-design burner is fully operational. Documentation from the manufacturer for this unit which specifies that these features are present and which also provides NO<sub>x</sub> emission factors shall be maintained onsite and shall be made available to the Technical Secretary or his representative.

**Note - For fee calculations, see condition E3-5 with 0.125 lb NO<sub>x</sub>/mmbtu factor for this source**

**E6-5.** Natural gas only shall be used as fuel at this source.

**E6-6.** A meter to record the volume of natural gas used at this furnace shall be installed, and records of gas usage shall be recorded no less frequently than on a monthly basis.

**22-0072-44:** Source #01-2; 50 Ton Aluminum Holding Furnace #102 and Pumping Station #2, Stacks S15, S16, and S32 (16 MM Btu/hr) Former Emission Source Reference Number 22-0072-13

Conditions **E7-1** through **E7-3** apply to source 22-0072-44.

**E7-1.** Particulate matter emitted from this source shall not exceed **5.9** pounds per hour.

TAPCR 1200-03-09-.01(4) This restriction was taken to avoid PSD review.

**Compliance Method and Fee calculations:**

Compliance assurance is based on stack testing (a source specific emission factor of **0.18** lb/ton of aluminum was developed based on stack testing conducted December 8, 1995), the equation below, and daily recordkeeping of the aluminum usage as specified in condition **E3-4**. For compliance assurance only, aluminum input to holding furnaces **102**, and **103** may be measured together and averaged across the furnaces in operation that day. Normal operation of these furnaces is 24 hours per day. Recordkeeping of operating hours may simply include a statement to this effect; however, the records must include the operating hours for the source on those days in which the furnace(s) did not operate 24 hours per day.

**Emission rate (lb/hr) = Monthly Al melted (tons/month) / (hours/month) x EF (lb/ton)**

**E7-2.** Sulfur dioxide emitted from this source shall not exceed **0.01** pounds per hour.

TAPCD 1200-03-14-.03(5)

**Compliance Method:** The potential to emit sulfur dioxide from this process emission source is less than five tons per year. 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 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for sulfur dioxide emissions from 50 ton aluminum holding furnace #102 and pumping station #2.

**Fee calculations: compliance shall be determined from condition E3-5.**

**E7-3.** The maximum emission rates for nitrogen oxides, carbon monoxide, volatile organic compounds, and fluorides shall not exceed the following:

NO <sub>x</sub> emissions tons/12 month	CO emissions tons/12 month	VOC emissions tons/12 month	Fluorides emissions Lb/hr
7.0	5.69	5.3	0.9

\* The NO<sub>x</sub>, CO and VOC limitations are expressed in terms of tons per all intervals of twelve consecutive months. TAPCR

1200-03-07-.07(2)

**Compliance Method and fee calculations :**

Compliance assurance is based on the following: for NO<sub>x</sub>, the AP-42 emission factor of **100** pounds per million cubic feet of natural gas and the design heat input capacity of each furnace; for CO, the AP-42 emission factor of **84.0** pounds per million cubic feet of natural gas and the design heat input capacity of each furnace; and for VOC, stack testing (a source specific emission factor of **0.064** lb/ton of aluminum was developed based on stack testing conducted October 13, 1994), daily recordkeeping of the aluminum usage as specified in condition **E3-4**, and the equation(s) below. For fluorides, compliance is assured by the use of non- reactive flux only. Records of the type of flux used shall be maintained at this source for not less than five (5) years, and shall be made available to the Technical Secretary or his representative upon request. For fee purposes, actual fluoride emissions shall be determined on an annual (July 1 through June 30) basis and submitted as specified in condition **E1**.

**Emission rate (lb/hr) = Monthly Al melted (tons/month) / (hours/month) x EF (lb/ton)**  
**Monthly Al melted (tons/12-months) x EF (lb/ton) = Emission rate (tons/consecutive 12 months)**

**E7-4.** Natural gas only shall be used as fuel at this source.

<p><b>SM1 22-0072-45:</b> Source #01-2 - 50 Ton Aluminum Holding Furnace #103 and Pumping Station #3, Stacks <b>S49</b> and <b>S50</b> (16 MM Btu/hr)                  Former Emission Source Reference Number 22-0072-13</p>
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Conditions **E8-1** through **E8-3** apply to source 22-0072-45.

**E8-1.** Particulate matter emitted from this source shall not exceed **4.0** pounds per hour.

TAPCR 1200-03-07-.01 This restriction was taken to avoid PSD review.

**Compliance Method and Fee calculations:**

Compliance assurance is based on stack testing (a source specific emission factor of **0.18** lb of PM /ton of aluminum was developed based on stack testing conducted December 8, 1995), the equation below, and daily recordkeeping of the aluminum usage as specified in condition **E3-4**. For compliance assurance only, aluminum input to holding furnaces 102, and 103 may be measured together and averaged across the furnaces in operation that day. Normal operation of these furnaces is 24 hours per day. Recordkeeping of operating hours may simply include a statement to this effect; however, the records must include the operating hours for the source on those days in which the furnace(s) did not operate 24 hours per day.

**Monthly Al melted (tons/month) / (hours/month) x EF (lb/ton) = PM Emission rate (lb/hr) E8-2.**

Sulfur dioxide emitted from this source shall not exceed **0.01** pounds per hour.

**TAPCD 1200-03-14-.03(5)**

**Compliance Method:** The potential to emit sulfur dioxide from this process emission source is less than five tons per year. 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 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for sulfur dioxide emissions from 50 ton aluminum holding furnace #103 and pumping station #3.

**E8-3.** The maximum emission rates for nitrogen oxides, carbon monoxide, and volatile organic compounds, shall not exceed the following:

NO <sub>x</sub> emissions tons/12 mo	CO emissions tons/12 mo	VOC emissions tons/12 mo
<b>7.0</b>	<b>5.69</b>	<b>5.3</b>

\* The NO<sub>x</sub>, CO, and VOC limitations are expressed in terms of tons per all intervals of twelve consecutive months. TAPCR 1200-03-07-.07(2)

**Compliance Method and Fee calculations:**

Compliance assurance is based on the following: for NO<sub>x</sub>, the AP-42 emission factor of **100** pounds per million cubic feet of natural gas and the design heat input capacity of each furnace; for CO, the AP-42 emission factor of **84** pounds per million cubic feet of natural gas and the design heat input capacity of each furnace; and for VOC, stack testing (a source specific emission factor of **0.064** lb/ton of aluminum was developed based on stack testing conducted October 13, 1994), daily recordkeeping of the aluminum usage as specified in condition **E3-4**, and the equation(s) below. For fluorides, compliance is assured by the use of non- reactive flux only. Records of the type of flux used shall be maintained at this source for not less than five (5) years, and shall be made available to the Technical Secretary or his representative upon request. For fee purposes, actual fluoride emissions shall be determined on an annual (July 1 through June 30) basis and submitted as specified in condition **E1**.

**Monthly Al melted (tons/month) / (hours/month) x EF (lb/ton) = Emission rate (lb/hr) OR Monthly Al**

**melted (tons/12-months) x EF (lb/ton) = Emission rate (tons/consecutive 12 months)**

**22-0072-46:** Source #02-1 – One Hot Box Station and Associated Sand / Resin Mixers, Stack **S14**, Sand Core Molding Operation  
Former Emission Source Reference Number 22-0072-18

Conditions **E9-1** through **E9-3** apply to source 22-0072-46.

**E9-1.** Particulate matter emitted from this source shall not exceed **0.9** pounds per hour.  
TAPCR 1200-03-07-.01(5)

**Compliance Method:** The potential to emit particulate matter from this process emission source is less than five tons per year. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-9-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for particulate matter emissions from the sand core molding operation consisting of two hot box stations and associated sand/resin mixers.

**For Fee calculation purposes:**

**Actual emissions will be considered to be the same as allowable emissions for this source, operating at 8760 hours per year.**

**E9-2.** Volatile organic compounds (VOC's) emitted from the hot box resins shall not exceed **8.6** tons per all intervals of twelve consecutive months, excluding formaldehyde.

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

**Compliance Method and Fee calculation:** Compliance assurance is based on material balance and a log of monthly resin usage and VOC content of the resin and a log which shows the VOC emissions for each consecutive twelve month interval.

**SAMPLE LOG**

Material Used	lbs/mo	Weight Fraction of Formaldehyde	Weight Fraction of VOC (excluding H <sub>2</sub> O, Formaldehyde & exempt solvents)	Formaldehyde Emission tons/month	VOC Emissions tons/month***
Resin Part A*					
Resin Part B**					
Total					

\* The resin manufacturer has stated that one-half of the formaldehyde in Resin A reacts and is not emitted.

\*\* Resin Part B contains no VOC or formaldehyde.

\*\*\* Excluding formaldehyde

**E9-3.** Formaldehyde emitted from the hot box resins shall not exceed **3.48** tons per all intervals of twelve consecutive months. This limit is not included in the VOC limit in condition E9-2.

TAPCR 1200-03-07-.07(2) State-only enforceable

Note: the total allowable VOC emission rate for this source is 12.08 tons per 12-month period (including formaldehyde).

**Compliance Method and Fee calculations:** Compliance assurance is based on material balance and a log of monthly resin usage and formaldehyde content of the resin, as specified in condition E9-2, and a log which shows the formaldehyde emissions for each consecutive twelve month interval.

**22-0072-47:** Source #02-2; Core-Making 1 through 21, Stack S53A, One Packed Bed Scrubber with Backup Scrubber S53B  
Former Emission Source Reference Number 22-0072-17

Conditions **E10-1** through **E10-3** apply to source 22-0072-47.

**E10-1.** Particulate matter emitted from this source shall not exceed 3.48 pounds per hour.

TAPCR 1200-03-07-.01(5)

**Compliance Method:** Compliance with this emission limitation shall be assured by compliance method stated for Condition **E10-2**. A monthly summary of the logbook entries shall be included in the Semi-Annual Reporting requirements of Condition **E2**.

**Fee calculation:** The agreed allowable particulate matter emission rate of 3.48 pounds per hour was set based on an exhaust loading of 0.01 gr/dscf and the maximum expected flowrate contained in the December 7, 2009 operating permit application. For fee calculation purposes the records must include a monthly log of the daily operating hours for the source.

**Hours/year x EF (lbs/hr) x 1 ton/2000 lbs = PM Emission rate (tons/yr)**

**E10-2.** The maximum emission rates for methylene diphenyl diisocyanate (MDI) and VOC catalyst (may be present as dimethyl isopropylamine- DMIPA) from this source shall not exceed the following:

<u>MDI</u>	<u>VOC Catalyst</u> (may be present as DMIPA)	
<u>Emission source</u>	<u>lbs/hr</u>	<u>lbs/hr</u>
Core Makers 1 through 21	0.0037 (Total)	1.1 (Total)

TAPCR 1200-03-07.07(2) State-only enforceable

**Note – the permittee must notify the Division within 30 days of changing the catalyst/accelerant (currently DMIPA)**

**Compliance Method and fee calculations:** The permittee shall install, maintain, and operate a continuous monitoring device for the measurement of the scrubbing liquid flow to the control equipment. Data generated by this device shall be recorded and these records shall be maintained at the site for a period of five years after the date of the data. Compliance with this emission limitation shall be assured by maintaining a water flow through the scrubber of at least **450** gallons per minute. The water flow rate shall be recorded once daily for each day of operation (midnight to midnight is one day). In addition to the water flow rate, the log shall indicate the nature and date of any maintenance and repairs performed on the scrubber. A monthly summary of the logbook entries shall be included in the Semi-Annual Reporting requirements of Condition **E2**.

The permittee shall install, maintain, and operate a monitoring device for the measurement of the pH of the scrubbing liquid utilized by the control equipment. Data generated by this device shall be recorded and these records shall be maintained at the site for a period of five years after the date of the data. The pH of the scrubbing liquid shall not exceed **5.5**, for any period lasting longer than three hours.

The permittee shall conduct daily visual inspections of the scrubber spray bars to insure an even distribution of liquid over the packed bed. Records of these inspections shall be maintained at the site for a period of five years after the date of the data.

This source shall not be operated without the use of a packed bed scrubber or control equipment which is determined by the Technical Secretary to be as efficient, except in accordance with TAPCR Chapter 1200-03-20. Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control devices. Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years.

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

The potential to emit MDI from this process emission source is less than one-half ton per year. 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 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 12000-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for MDI emissions from core makers 1 through 21 to the Division of Air Pollution Control.

**This process and the associated control device are subject to the CAM requirements as specified in condition E3-9 and Attachment 7 of this permit.**

**E10-3.** VOC emissions from clean-up solvent shall not exceed **10.0** tons per all intervals of twelve consecutive months. VOC emissions from the resin and catalyst (includes MDI , DMIPA, and any other chemical catalyst/accelerant) shall not exceed **176.8** tons per all intervals of twelve consecutive months (includes phenol and formaldehyde).

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

**Compliance Method and Fee calculations:** Compliance assurance is based on recordkeeping of clean-up solvent usage and resin usage and material balance showing monthly VOC losses. For fee purposes, tons per annual accounting period (July 1 through June 30) of HAP emissions from this source shall be reported as specified in condition **E1**.

Material Used	lbs/mo	VOC Emission Factor lb/lb	VOC Emissions tons/month	VOC Emissions tons/all intervals of 12 consecutive months
Resin		0.0941 (see note 1 below)		
Catalyst (may be present as DMIPA)		Mass balance (see note 2 below)		
Clean-up solvent		100%		
Total				

**Note 1:** The permittee indicated that the emission factors for “pouring through shakeout” are based the “2007 Casting Emission Reduction Program Report, *A Phenolic Urethane System with Two Variations for PCS Emissions in Aluminum using a 4-on Step Core Mold 1413-112*. A copy of the report is maintained in the Division’s files. The mixing factor was included in the 1994 permit application from the facility

**Total VOC emission factors = mixing + pouring through shakeout**  
**= 0.0077 + 0.0864 = 0.0941 lb VOC / lb resin**

**Note 2:** The VOC mass balance of the catalyst is based on the usage of catalyst and recovery factor developed by sampling and averaging three scrubber liquor solutions expended. By the permittee’s letter dated November 3, 2014, a detail of the calculation and usage of the solution data is as follows:

**Scrubber efficiency ( $\eta\%$ ) = [(ScrubberSolution x %A)/Catalyst] x 100%**

**Where:**

- $\eta\%$  is the calculated scrubber efficiency**
- ScrubberSolution is the 12 month moving average of disposal shipments in pounds, and**
- %A is the percent Amine in solution determined by disposal sample analysis, and**
- Catalyst is the 12 month moving average of the catalyst in pounds. At the permit issuance time, the catalyst is DMIPA.**

**MM1-E10-4.** On or before June 30, 2015, the owner or operator shall furnish the Technical Secretary a written report of the results of emission performance tests for the pollutants listed below. The performance tests shall be conducted and data reduced in accordance with the methods and procedures specified in 40 CFR 60, Appendix A.

- Particulates - Scrubber outlet only -
- Methylene Diphenyl Diisocyanate (MDI)- **Scrubber outlet only**

A notification of the test date must be submitted to the Technical Secretary at least 30 days prior to testing in order to afford him the opportunity to have an observer present. Said notification shall include a test protocol. The test protocol shall address emissions capture. Within sixty (60) days of the completion of the performance test, the test report shall be submitted to the Technical Secretary. The test should be designed to test the emission level when a maximum amount of VOC emissions is being produced. 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. The Division reserves the right to revise the scrubber parameters set forth in the compliance method for this source based on this testing.

**22-0072-49 – Eleven (11) Aluminum Holding Furnaces with Associated Pouring Stations, and One Holding Furnace with Manual Bench Pouring Station. Each Furnace is Equipped with a 0.48 MM Btu/hr capacity burner.**

49 (Unit 03-101, stacks S6 & S7), 50 (Unit 03-102, stacks S8 & S9), 51 (Unit 03-103, stacks S10 & S11), 52 (Unit 03-104, stacks S18 and S19), 53 (Unit 03-105, stacks S20 and S21), 54 (Unit 03-106, stacks S22 & S23), 55 (Unit 03-107, stacks, S24 & S25), 56 (Unit 03-108, stacks S26 and S27), 57 (Unit 03-109, stacks S28 and S29), 58 (Unit 03-110, Stacks S43 and S44), 59 (Unit 03-111, stacks S47 & S48), and 60 (Unit 03-112, stack 51, & 52). 11 carousel stations and one bench station

**Note:** Furnaces associated with Units 03-0104, 03-0105, 03-111, 03-113, and 03-114 each have a capacity of 5.6 metric tons; all others units each have a capacity of 4.6 metric tons.

**Note:** The furnace associated with units 03-106 and 03-107 are changed through this modification from 4.6 metric ton to 5.6 metric ton. Carousel #6 is changed from a 10 point index to a 5 point index and a cut-off saw is added.

Continuous nitrogen purge is in use at all furnaces for purposes of hydrogen gas removal.

**Note:** Emission point 55, pouring station is equipped with a cut-off saw, and particulate emissions from saw are exhausted to S25. Emission point 60, pouring station is equipped with a cut-off saw, and particulate emissions from saw are exhausted to S52.

**Conditions MM1-E12-1 through E12-4 apply to sources 22-0072-49 unless otherwise specified.**

**MM1- E12-1.** Particulate matter emitted from each of the following holding furnace stacks S6 (Point 49), S8 (Pt 50), S10 (Pt 51), S18 (Pt 52), S20 (Pt 53), S22 (Pt 54), S26 (Pt 56), S28 (Pt 57), S43 (Pt 58), S47 (Pt 59), and S51 (Pt 60) shall not exceed **the emission rates shown below (pounds per hour).**

ESRN	Equipment Unit Name	Furnace Capacity (Metric Tons)	Holding Furnace Stack Number	Holding Furnace PM Emission Limit (lbs/hr)	Comments
22-0072-49	In-Line Holding Furnace Unit 03-101	4.6	6	0.19	---
22-0072-50	Holding Furnace and Carousel #1 Pouring Station Unit 03-102	4.6	8	0.19	---
22-0072-51	Holding Furnace and Carousel #2 Pouring Station Unit 03-103	4.6	10	0.19	---
22-0072-52	Holding Furnace and Carousel #3 Pouring Station Unit 03-104	5.6 (MM1)	18	0.19	MM Request Submitted July 30, 2014
22-0072-53	Holding Furnace and Carousel #4 Pouring Station Unit 03-105	5.6 (MM1)	20	0.19	MM Request Submitted July 30, 2014
22-0072-54	Holding Furnace and Carousel #7 Pouring Station Unit 03-106	5.6 (MM1)	22	0.35 (MM1)	MM Request submitted February 9, 2015
22-0072-55	Holding Furnace and Carousel #6 Pouring Station Unit 03-107	5.6 (MM1)	24	0.35 (MM1)	MM Request Submitted July 30, 2014
22-0072-56	Holding Furnace and Carousel #8 Pouring Station Unit 03-108	4.6	26	0.19	---

ESRN	Equipment Unit Name	Furnace Capacity (Metric Tons)	Holding Furnace Stack Number	Holding Furnace PM Emission Limit (lbs/hr)	Comments
22-0072-57	Holding Furnace and Carousel #9 Pouring Station Unit 03-109	4.6	28	0.19	---
22-0072-58	Holding Furnace and Carousel #10 Pouring Station Unit 03-110	5.6 (MM1)	43	0.19	MM Request Submitted July 30, 2014
22-0072-59	Holding Furnace and Carousel #5 Pouring Station Unit 03-111	5.6 (MM1)	47	0.19	MM Request Submitted July 30, 2014
22-0072-60	Holding Furnace and Carousel #11 Pouring Station Unit 03-112	5.6	51	0.19	
		(MM1)	TOTAL	2.6	---

TAPCR 1200-03-07-.01(5) and the applications dated July 30, 2014, and February 9, 2015

#### Compliance Method and Fee Calculations:

Compliance assurance is based on recordkeeping required by condition **E3-4** and source specific emission factor of **0.081** pounds of particulate matter per ton of aluminum processed obtained through the stack testing conducted on February 12 – 13, 1991. For compliance assurance, aluminum input to these sources may be measured together and averaged across the furnaces in operation that day.

**MM1-E12-2.** Particulate matter emitted from each of the following pouring station stacks, S7 (Point 49), S9 (Pt 50), S11 (Pt 51), S19 (Pt 52), S21 (Pt 53), S23 (Pt 54), S27 (Pt 56), S29 (Pt 57), S44 (Pt 58), S48 (Pt 59), and S52 (Pt 60) shall not exceed **the emission rates shown in the table below (pounds per hour)**.

ESRN	Equipment Unit Name	Furnace Capacity (Metric Tons)	Pouring Station Stack Number	Pouring Station PM Emission Limit (lbs/hr)	Equipped with Cut-off Saw? (Yes/No)	Cut-off Saw PM Emission Rate (to Pouring Stack) (lbs/hr)	Comments
22-0072-49	In-Line Pouring Station Unit 03-101	4.6	7	1.5	No	---	
22-0072-50	Holding Furnace and Carousel #1 Pouring Station Unit 03-102	4.6	9	1.5	No	---	
22-0072-51	Holding Furnace and Carousel #2 Pouring Station Unit 03-103	4.6	11	1.5	No	---	
22-0072-52	Holding Furnace and Carousel #3 Pouring Station Unit 03-104	5.6 (MM1)	19	1.5	No	---	MM Request Submitted July 30, 2014
22-0072-53	Holding Furnace and Carousel #4 Pouring Station Unit 03-105	5.6 (MM1)	21	1.5	No	---	MM Request Submitted July 30, 2014

ESRN	Equipment Unit Name	Furnace Capacity (Metric Tons)	Pouring Station Stack Number	Pouring Station PM Emission Limit (lbs/hr)	Equipped with Cut-off Saw? (Yes/No)	Cut-off Saw PM Emission Rate (to Pouring Stack) (lbs/hr)	Comments
22-0072-54	Holding Furnace and Carousel #7 Pouring Station Unit 03-106	5.6 (MM1)	23	2.0 (MM1)	Yes (MM1)	0.09 (MM1)	MM Request Submitted February 9, 2015
22-0072-55	Holding Furnace and Carousel #6 Pouring Station Unit 03-107	5.6 (MM1)	25	2.0 (MM1)	Yes (MM1)	0.09 (MM1)	MM Request Submitted July 30, 2014
22-0072-56	Holding Furnace and Carousel #8 Pouring Station Unit 03-108	4.6	27	1.5	No	---	
22-0072-57	Holding Furnace and Carousel #9 Pouring Station Unit 03-109	4.6	29	1.5	No	---	
22-0072-58	Holding Furnace and Carousel #10 Pouring Station Unit 03-110	5.6 (MM1)	44	1.5	No	---	MM Request Submitted July 30, 2014
22-0072-59	Holding Furnace and Carousel #5 Pouring Station Unit 03-111	5.6 (MM1)	48	1.5	No	---	MM Request Submitted July 30, 2014
22-0072-60	Holding Furnace and Carousel #11 Pouring Station Unit 03-112	5.6	52	1.5	Yes	0.07	
			(MM1)	19.0	---	0.25	

TAPCR 1200-03-07-.01(5) and the applications dated July 30, 2014, and February 9, 2015

#### Compliance Method and Fee Calculations:

(a) Compliance assurance is based on stack testing (a source specific emission factor of **0.522** pounds of particulate matter per ton of aluminum processed was developed based on stack testing conducted October 11, 1994) and recordkeeping as required by condition **E3-4**. For compliance assurance only, aluminum input to these sources may be measured together and averaged across the furnaces in operation that day.

(b) In order to estimate the additional particulate matter emissions from the cut-off saw on Pt 54 (Unit 03-106), the hours of operation on Unit 03-106 will be recorded on a daily basis. An additional 0.09 pounds per hour will be added to the calculated process emission calculation contained in the paragraph (a).

(c) In order to estimate the additional particulate matter emissions from the cut-off saw on Pt 55 (Unit 03-107), the hours of operation on Unit 03-107 will be recorded on a daily basis. An additional 0.09 pounds per hour will be added to the calculated process emission calculation contained in the paragraph (a).

(d) In order to estimate the additional particulate matter emissions from the cut-off saw on Pt 60 (Unit 03-112), the hours of operation on Unit 03-112, will be recorded on a daily basis. An additional 0.07 pounds per hour will be added to the calculated process emission calculation contained in the paragraph (a).

**E12-3.** The maximum emission rates for nitrogen oxide (NO<sub>x</sub>), carbon monoxide (CO), methylene diphenyl diisocyanate (MDI) per source shall not exceed the following:

Emission Source Reference No.	NO <sub>x</sub> emissions Lb/hr	CO emissions Lb/hr	MDI emissions* Lb/hr
49 through 60	0.05	0.0403	0.0025

**Compliance Method and Fee Calculations:**

It has been determined that actual lb/hr emissions are equal to allowable lb/hr, at 8760 hrs per year.

\* MDI is a HAP and is a subset of VOC

TAPCR 1200-03-07-.07(2) - MDI limit is State-only enforceable

**Compliance Method:** The potential to emit nitrogen oxides and carbon monoxide from each of these process emission sources is less than five tons per year of each pollutant. The potential to emit MDI from each of these process emission sources is less than one-half ton per year. 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 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for emissions of nitrogen oxides, carbon monoxide, MDI, from each aluminum holding furnace and its associated pouring station. The compliance certification for MDI is to be submitted to the Division of Air Pollution Control, and is not required to be submitted to the U.S. EPA.

**E12-4.** Natural gas only shall be used as fuel for these sources.

**Compliance Method:** Compliance by certification

**22-0072-65:** Source #04-1 - Core Shakeout with Baghouse Control, Stack **S35**, Former Emission Source Reference Number 22-0072-20. (SM1) Any emissions from degassing conducted at four degassing stations are routed to Core Shakeout Baghouse and exhaust stack **S35**.  
Conditions **E28-1** and **E28-3** apply to source 22-0072-65.

**E28-1:** Particulate matter emitted from core shakeout stack **S35** shall not exceed **0.70** pounds per hour.

TAPCR 1200-03-07-.01(5)

**Compliance Method:** This source (22-0072-65) shall not operate without the use of air pollution control device(s) (baghouse), except in accordance with TAPCR 1200-03-20. Compliance with this requirement shall be assured by maintaining a minimum pressure drop of **1.0** inches of water across the baghouse. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. Days when the source is not operating 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. Compliance is also assured by performing and recording in a log all maintenance on the air pollution control device(s), as required to maintain the specified emission limit for this condition. These logs shall be used to assure compliance with this condition and in the reporting requirements of Condition **E2** of this permit, and must be retained for a period of not less than five years.

**SAMPLE LOG - DAILY LOG FOR SOURCE 22-0072-65**

Date	Pressure Drop Across the Baghouse (inches of water)	Operator Initials
	1D	

This process and the associated control device are subject to the CAM requirements as specified in condition E3-9 and attachment 7 of this permit.

**Fee calculations:**

**Actual emissions will be considered to be the same as allowable emissions for this source, operating at 8760 hours per year.**

**E28-2.** Emissions of methylene diphenyl diisocyanate (MDI) shall not exceed the following limits:

Emission Source	Stack I.D.	MDI emissions Lb/hr
Core Shakeout	S35	0.001

TAPCR 1200-03-07-.07(2) - MDI is State-only enforceable

**Compliance Method:** The potential to emit MDI from this process emission source is less than one-half ton per year. 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 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for emissions of MDI from core shakeout. The compliance certification for MDI to be submitted to the Division of Air Pollution Control, and is not required to be submitted to the U.S. EPA.

**Fee calculations:**

**Actual emissions will be considered to be the same as allowable emissions for this source, operating at 8760 hours per year.**

**E28-3. (SM1)** Emissions of fluoride emissions from the degassing stations shall not exceed a 0.6 pounds per hour.

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

**Compliance Method:** Compliance is assured by the use of non- reactive flux only. Records of the type of flux used shall be maintained at this source for not less than five (5) years, and shall be made available to the Technical Secretary or his representative upon request. For fee purposes, actual fluoride emissions shall be determined on an annual (July 1 through June 30) basis and submitted as specified in condition E1.

**22-0072-67:** Source #05; Continuous Heat Treat Furnace #2 (30 MMBtu/hr) with cyclone, stack 57A, followed by quench exhaust 57B. Maximum rated heat input capacity for this source of 30.0 MM Btu per hour.

Conditions **E30-1** through **E30-6** apply to source 22-0072-67.

**E30-1.** Particulate matter emitted from this source shall not exceed 5.04 pounds per hour.

TAPCR 1200-03-07-.01(5) (Agreement contained in operating permit renewal application dated December 7, 2009)

**Compliance Method and fee calculation :** Compliance assurance is based on stack testing (source specific emission factors of 0.16 lb/ton of aluminum for the heat treat furnaces developed based on stack testing conducted March 22, 1996 and monthly recordkeeping of the tons of aluminum processed each day, in the format provided in Condition E3-4.

**E30-2.** Nitrogen oxides (NO<sub>x</sub>) emitted from this source shall not exceed **31.1** tons per all intervals of twelve consecutive months.

**Compliance Method:** Compliance with this emission limitation shall be assured through the use of AP-42 emission factors from Natural Gas Combustion – Tables 1.4-1 and 1.4-2, Supplement to 5<sup>th</sup> Ed, 7/98, (**Attachment #2**) and the maximum rated heat input capacity for this source of 30.0 MM Btu per hour.

**Fee Calculations shall be determined from condition E3-5**

**E30-3.** Carbon monoxide emitted from this source shall not exceed 99.0 tons per all intervals of twelve consecutive months.

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

**Compliance Method:** Compliance with this emission limitation shall be assured through the use of AP-42 emission factors from Natural Gas Combustion – Tables 1.4-1 and 1.4-2, Supplement to 5<sup>th</sup> Ed, 7/98 and the maximum rated heat input capacity for this source of 30.0 MM Btu per hour.

**E30-4.** Volatile organic compounds emitted from this source shall not exceed 66.2 tons per all intervals of twelve consecutive months.

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

**Compliance Method and fee calculations:** Compliance assurance is based on stack testing source specific emission factors of 0.29 lb/ton of aluminum for the heat treat furnaces developed based on stack testing conducted March 22, 1996 monthly recordkeeping of the tons of aluminum processed each day, in the format provided in Condition **E3-4**.

**E30-5.** Sulfur Dioxide (SO<sub>2</sub>) emitted from this source shall not exceed 0.69 pounds per hour.

TAPCR 1200-03-14-.01(3) (Agreement letters dated October 29, 1996)

**Compliance Method:** The potential to emit sulfur dioxide from this process emission source is less than five tons per year. 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 1200-03-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for sulfur dioxide emissions from continuous heat treat furnace #1.

**Fee calculations shall be determined from condition E3-5. E30-6.**

Natural gas only shall be used as fuel for this source.

**Compliance Method:** Compliance by certification

**22-0072-69:** Source #06-1; Sand Reclamation Unit #1, Fluid Bed Calcining Furnace (9.0 MM Btu/hr) with Baghouse Control, One Sand Tumbler (Didion, 5 MM Btu/hr); Stack **S39**. **Note** - Sand Silo Stack S64 is considered “insignificant”.

**NSPS Subpart UUU Dryer**

Former Emission Source Reference Number 22-0072-05

Conditions **E32-1** through **E32-6** apply to source 22-0072-69.

**E32-1.** Particulate matter emitted from stack **S39** shall not exceed **4.1** pounds per hour and **0.025** grains per dry standard cubic foot (gr/dscf).

TAPCR 1200-03-07-.01 (5) (lb/hr limitation) and 1200-03-16-.74 - 40 CFR 60.732(a) Subpart UUU (grain loading limit - See Attachment 3)

**Compliance Method:** This source (**22-0072-69**) shall not operate without the use of air pollution control device(s) (baghouse), except in accordance with TAPCR 1200-03-20. Compliance with this requirement shall be assured by maintaining a minimum pressure drop of **1.0** inches of water across the baghouse. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. Days when the source is not operating 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. ~~One~~ 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. Compliance is also assured by performing and recording in a log all maintenance on the air pollution control device(s), as required to maintain the specified emission limit for this condition. These logs shall be used to assure compliance with this condition and in the reporting requirements of Condition **E2** of this permit, and must be retained for a period of not less than five years.

**SAMPLE DAILY LOG FOR SOURCE 22-0072-69**

Date	Pressure Drop Across the Baghouse (inches of water)	Operator Initials
	1D	

**Fee calculations:** Allowable emissions would be considered equal to actual emissions for fee purposes only.

This process and the associated control device are subject to the CAM requirements as specified in condition **E3-9** and **Attachment 7** of this permit

**E32-2.** Reserved

**E32-3.** The maximum emission rates from Stack S39 for nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), volatile organic compounds (VOC), methylene diphenyl diisocyanate (MDI), and dimethyl isopropylamine (DMIPA) from this source shall not exceed the following:

Emission Source	NO <sub>x</sub> emissions Lb/hr	CO emissions Lb/hr	VOC emissions Lb/hr	MDI emissions Lb/hr	VOC catalyst (may be present as DMIPA) lb/hr
<b>Stack No. 39</b>	<b>1.40</b>	<b>1.18</b>	<b>0.1</b>	<b>0.02</b>	<b>1.2</b>

**The emission limitation includes only VOC’s from fuel combustion.**

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

\* VOC emissions released from the resins have been accounted for in this permit for the sand core operation source # 22-0072-47. The above emission limitation includes only VOC’s from fuel combustion.

**MDI and VOC catalyst (DMIPA) limits are State-only requirements.**

**Compliance Method:** For NO<sub>x</sub>, CO, and VOC, compliance assurance is based on the AP-42 emission factors for natural gas combustion found in **Attachment 2**. Compliance with the MDI and DMIPA limits are based on annual assurance of compliance.

**Fee calculations:** For fee calculation purposes for VOC and nitrogen oxides, see emission factors in condition E3-5. For fee calculation purposes for MDI and DMIPA the hourly allowable emission rate shall be multiplied by the hours of operation for the annual accounting period.

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 1200-03-10-.04(2)(b)1. The permittee shall submit annually compliance certification for carbon monoxide, MDI and VOC catalyst (**may be present as DMIPA**) emissions from sand reclamation unit #1. The compliance certification for MDI and DMIPA is to be submitted to the Division of Air Pollution Control, and is not required to be submitted to the U.S. EPA

**E32-4.** Sulfur dioxide emitted from this source shall not exceed **0.008** pounds per hour.

TAPCR 1200-03-14-.03(5)

**Compliance Method:** The potential to emit sulfur dioxide from this process emission source is less than five tons per year. 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 1200-03-10-.04(2)(b)1 and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually compliance certification for sulfur dioxide emissions from sand reclamation unit #1.

Fee calculations : For fee calculation purposes for sulfur dioxide see condition E3-5.

E32-5. Reserved

E32-6. Natural gas only shall be used as fuel for this source.

Compliance Method: Compliance by certification.

E32-7. Should the Technical Secretary deem it necessary, the owner or operator shall conduct a performance test for emissions of particulate matter from this source and furnish the Technical Secretary a written report of the results of such performance test. Testing shall be conducted in accordance with 40 CFR 60.8 and Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

TAPCR 1200-03-16-.74

E32-8. Visible emissions from stack 39 shall not exceed 10 percent or greater opacity as determined by EPA Method 9, as published in (6 minute average) 40 CFR 60, Appendix A (six minute data average).

TAPCR 1200-03-09-.03 (8), 1200-03-05 and 1200-03-16-.74(4)

Compliance Method: This source exhausting through Stack S39 is subject to the visible emissions monitoring requirements of 40 CFR 60.734 (see Attachment 3). Performance testing of the calciner on September 23, 1993 demonstrated potential particulate emissions of greater than 11 tons per year. Since the source utilizes a dry control device, the opacity monitoring requirements of 40 CFR 60.734 apply. In lieu of installing an in-stack opacity monitoring system, a certified visible emissions observer may measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9, 40 CFR 60, Appendix A. Each owner or operator shall submit written reports semiannually of exceedances of control device operation parameters required to be monitored by §60.734 of this subpart. Reports and certifications shall be submitted in accordance with Condition E2 of this permit. For the purpose of these reports, exceedances are defined as follows:

All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent.

22-0072-70: Source #06-2 - Three Sand Storage Silos #1, #2, and #3 (Pneumatic Transfer) , Stack S13  
Former Emission Source Reference Number 22-0072-16

Condition E33-1 applies to source 22-0072-70.

E33-1. Particulate matter (TSP) emitted from this source shall not exceed 0.144 pounds per hour.

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Compliance Method: This source (22-0072-70) shall not operate without the use of air pollution control device(s) (baghouse), except in accordance with TAPCR 1200-03-20. Compliance with this requirement shall be assured by maintaining a minimum pressure drop of 1.0 inches of water across the baghouse. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. Days when the source is not operating 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. Compliance is also assured by performing and recording in a log all maintenance on the air pollution control device(s), as required to maintain the specified emission limit for this condition. These logs shall be used to assure compliance with this condition and in the reporting requirements of Condition E2 of this permit, and must be retained for a period of not less than five years.

SAMPLE DAILY LOG FOR SOURCE 22-0072-70

Date	Pressure Drop Across the Baghouse (inches of water)	Operator Initials
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	1D	

**Fee Calculations:** Allowable emissions would be considered equal to actual emissions for fee purposes only.

**22-0072-71:** Source #06-3; Core Line Sand Transport #1, Stack S54, Pneumatic Transfer of Virgin Sand from Storage Bins to Work Bins, Baghouse Control, Former Emission Source Reference Number 22-0072-08

Condition **E34-1** applies to source 22-0072-71.

**E34-1.** Particulate matter emitted from the stack shall not exceed **6.5** pounds per hour.

TAPCR 1200-03-07-.01(5) [Agreement Letter dated September 23, 2002]

**Compliance Method:** This source (22-0072-71) shall not operate without the use of air pollution control device(s) (baghouse), except in accordance with TAPCR 1200-03-20. Compliance with this requirement shall be assured by maintaining a minimum pressure drop of **1.0** inches of water across the baghouse. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. Days when the source is not operating 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. Compliance is also assured by performing and recording in a log all maintenance on the air pollution control device(s), as required to maintain the specified emission limit for this condition. These logs shall be used to assure compliance with this condition and in the reporting requirements of Condition **E2** of this permit, and must be retained for a period of not less than five years.

**SAMPLE DAILY LOG FOR SOURCE 22-0072-71**

Date	Pressure Drop Across the Baghouse (inches of water)	Operator Initials
	1D	

**This process and the associated control device are subject to the CAM requirements as specified in condition E3-9 and Attachment 7 of this permit.**

**Fee calculations:** Allowable emissions would be considered equal to actual emissions for fee purposes only.

**22-0072-73:** Source #06-5; 50 Ton Sand Silo #7 and Day Bin with Baghouse Control, Stack **S68**  
Former Emission Source Reference Number 22-0072-26

Condition **E36-1** applies to source 22-0072-73.

**E36-1.** Particulate matter (TSP) emitted from this source shall not exceed **1.52** pounds per hour.

TAPCR 1200-03-07-.03(1)

**Compliance Method:** This source (22-0072-73) shall not operate without the use of air pollution control device(s) (baghouse), except in accordance with TAPCR 1200-03-20. Compliance with this requirement shall be assured by maintaining a minimum pressure drop of **1.0** inches of water across the baghouse. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. Days when the source is not operating 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. Compliance is also assured by performing and recording in a log all maintenance on the air pollution control device(s), as required to maintain the specified emission limit for this condition. These logs shall be used to assure compliance with this condition and in the reporting requirements of Condition **E2** of this permit, and must be retained for a period of not less than five years.

**SAMPLE DAILY LOG FOR SOURCE 22-0072-73**

Date	Pressure Drop Across the Baghouse (inches of water)	Operator Initials
	1D	

**Fee calculations:** Allowable emissions would be considered equal to actual emissions for fee purposes only.

**22-0072-75:** One (1) Diesel-Fired Internal Combustion Generator (230 kW), 355 hp Compression Ignition

Condition **E37-1** through **E37-3** apply to source 22-0072-75

**E37-1.** This source consists of one (1) diesel-fired emergency generator Kohler model No. 230RO271. The rated design power for the compression ignition engine is 355Hp (230 kW). The Technical Secretary may require the permittee to prove compliance with power production rate.

**E37-2.** Only diesel fuel shall be used for this source.

**E37-3.** The permittee has designated this source as an Emergency Power Generator. According to a memorandum dated September 6, 1995, from John Seitz, Director, Office of Air Quality Planning and Standards, “EPA believes that **500** hours is an appropriate default assumption for estimating the number of hours that an emergency generator could be expected to operate under worst-case conditions.” This value will be assumed to be the maximum operating hours per 12-month period for this source for the purpose of establishing a “potential to emit” for the facility for the pollutants of concern for the engine specified in condition **E37-1**. In the event the unit operates beyond this time limit, the total annual hours of operation shall be reported to the Technical Secretary by the end of the calendar year, along with the amount of fuel used, and actual emissions from this unit.

**E37-4.** The permittee must use diesel fuel that has a Sulfur content of no higher than 15 ppm maximum. (this is equal to approximately **0.01** lbs of SO<sub>2</sub> emissions per hour)

**Compliance Method:** Compliance with this limitation shall be assured through the vendor’s certification. The permittee shall use the vendor’s certification for each shipment of diesel fuel, or alternatively, the vendor may supply a statement that all diesel fuel delivered to the facility will contain no more than **0.0015** wt. % sulfur. TAPCR 1200-03-14-.03(5)

**E37-5.** Particulate matter (TSP) emitted from this compression-ignition engine shall not exceed 0.6 lb/MMBtu (1.63 lb/hr).

TAPCR 1200-03-06-.02(2)

**Compliance Method:** Compliance with the Particulate emission limit for this compression-ignition engine are based on compliance with conditions **E37-1** and **E37-2** and PM10 emission factor of 0.0022 lb/hp-hr from AP-42 Table 3.3-1.

**For purposes of fee calculation, PM emitted from this compression-ignition is estimated at 1.63 lbs/hr. and hours of operation**

**E37-6.** For purposes of fee calculation, nitrogen oxides (NOx) emitted from this compression-ignition engine are estimated at 11.1 lbs/hr.

**This is based on a emission factor of 0.031 lb NOx /hp-hr from AP-42 Table 3.3-1 and records of hours of operation**

**E37-7.** This engine (as specified at condition **E37-1**) is subject to the provisions of 40 CFR 63 Subpart *ZZZZ*, National Emission Standards for Hazardous Air Pollutants: Stationary and Reciprocating Internal Combustion Engines (RICE).

**Compliance Method:**

No later than May 3, 2013, this compression ignition emergency engine shall comply with the provisions of 40 CFR 63 Subpart *ZZZZ* – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). These provisions include, but are not limited to, the items specified in the table **2d** below. TAPCR

1200-3-09-.03(8) and 40 CFR §§ 63.6595, 63.6603, and 63.6640

**Table 2d to Subpart *ZZZZ* of Part 63, Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions:**

Source I.D.	You must meet the following requirement, except during periods of startup . . .
Diesel-Fired Internal Combustion Generator (230 kW), 355 Hp Compression Ignition	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup>
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

<sup>1</sup>Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

<sup>2</sup>If the emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

§63.6605 requires compliance with the operating limitations in Subpart ZZZZ that apply at all times, and requires operation and maintenance of the engine, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

§63.6625(e) requires operation and maintenance of the engine and after-treatment control device (if any) according to the manufacturer’s emission-related written instructions or the facility may develop its 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. §63.6640(a) and #9 of Table 6 to Subpart ZZZZ - Work or Management Practices

§63.6625(f) requires installation of a non-resettable hour meter if one is not already installed.

§63.6605 requires compliance with the operating limitations in Subpart ZZZZ that apply at all times, and requires operation and maintenance of the engine, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

§63.6640 states that there is no time limit on the use of the engine in emergency situations. These emergency engines may operate for the purpose of maintenance checks and readiness testing, provided the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance and readiness testing of such units are limited to 100 hour per year. The engine may be operated up to 50 hours in non-emergency situations, but those 50 hours are counted toward the 100 hours provided for maintenance and testing.

**The permittee shall maintain records of operating time for the emergency diesel engine on a monthly basis at this source in the following format or another format providing the same information. The permittee shall retain these records at the source location for a period not less than five (5) years and keep them available for inspection by the Technical Secretary or a Division representative.**

**TABLE 1 - Operating Time for Emergency Diesel Engine:**

Month	Non-Emergency Operation (hours)	Emergency Operation (hours)	Year
			_____
Total Hours per Calendar Year			
January			
February			
March			
etc.			
Totals			

22-0072-76: Thermal Sand Reclamation System with Baghouse Control. NSPS (Subpart UUU)

**E38-1. (SM1)** The total stated heat input capacity of the reclamation system is 11.5 million British Thermal Units per hour (MMBtu/hr). The Technical Secretary may require the permittee to prove compliance with this rate. TAPCR 1200-03-06-.03(2).

**E38-2. (SM1)** Only natural gas shall be used as fuel for this source. TAPCR 1200-03-07-.07(2).

**E38-3. (SM1)** The total raw material input to this source shall not exceed 6.0 tons per hour based on a daily average. The Technical Secretary may require the permittee to prove compliance with this rate. TAPCR 1200-03-07-.07(2).

**E38-4. (SM1)** Particulate matter emitted from this source shall not exceed 2.0 pounds per hour based on a daily average, and 0.025 grain per dry cubic foot of stack gases corrected to 70°F and 1 atmosphere.

**Compliance Method:** This source (22-0072-76) shall not operate without the use of air pollution control device(s) (baghouse), except in accordance with TAPCR 1200-03-20. Compliance with this requirement shall be assured by maintaining a minimum pressure drop of **1.0**

inches of water across the baghouse. The pressure drop for the baghouse shall be recorded once daily when the source is in operation. Days when the source is not operating 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. Compliance is also assured by performing and recording in a log all maintenance on the air pollution control device(s), as required to maintain the specified emission limit for this condition. These logs shall be used to assure compliance with this condition and in the reporting requirements of Condition **E2** of this permit, and must be retained for a period of not less than five years.

**E38-5(SM1)** Sulfur dioxide (SO<sub>2</sub>) emitted from this source shall not exceed 0.25 pounds per hour based on a daily average.

**Compliance Method:**

Compliance with this condition shall be assured by compliance with **Conditions E38-1 and E38-2** and the emission factors from the application. TAPCR 1200-03-14-.01(3).

**E38-6 (SM1)** Nitrogen oxides (NO<sub>x</sub>) emitted from this source shall not exceed 4.94 tons during any period of twelve consecutive months.

**Compliance Method:**

Compliance with this condition shall be assured by compliance with **Conditions E38-1 and E38-2** and the emission factors from the application. TAPCR 1200-03-07-.07(2).

**E38-7 (SM1)** Carbon Monoxide (CO) emitted from this source shall not exceed 4.38 tons during any period of twelve consecutive months.

**Compliance Method:**

Compliance with this condition shall be assured by compliance with **Conditions E38-1 and E38-2** and the emission factors from the application. TAPCR 1200-03-07-.07(2).

**E38-8. (SM1)** Volatile organic compounds (VOC) emitted from this source shall not exceed 4.38 tons during any period of twelve consecutive months.

**Compliance Method:**

Compliance with this condition shall be assured by compliance with **Conditions E38-1 and E38-2** and the emission factors from the application. TAPCR 1200-03-07-.07(2).

**E38-9. (SM1)** Visible emissions from this source shall not exhibit greater than ten percent (10%) opacity except for one six-minute period per one (1) hour or for no more than four (4) six-minute periods in any twenty four (24) hour period.

**Compliance Method:**

Visible emissions from this source shall be determined by EPA Method 9, as published in 40 CFR 60, Appendix A (six-minute average). TAPCR 1200-03-05-.01(1), 1200-03-05-.03(6) and 40 CFR Part 60 §60.372

**(End of Conditions)**

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**ATTACHMENT #1**

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**OPACITY MATRIX DECISION TREE for  
VISIBLE EMISSION EVALUATION METHODS 2 and 9  
Dated JUNE 18, 1996 and amended September 11, 2013**

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**Decision Tree PM for Opacity for  
Sources Subject to Rule 1200-03-05-.01  
Utilizing TVEE Method 2**

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 standard in Rule 1200-03-05-.01. 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 PMT 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 Tennessee Visible Emission Evaluation Method 2. The observer must be properly certified according to the criteria specified in EPA Method 9 to conduct TVEE Method 2 evaluations.

**Typical Pollutants**  
Particulates, VOC, CO, SO<sub>2</sub>, NO<sub>x</sub>, HCl, HF, HBr, Ammonia, and Methane.

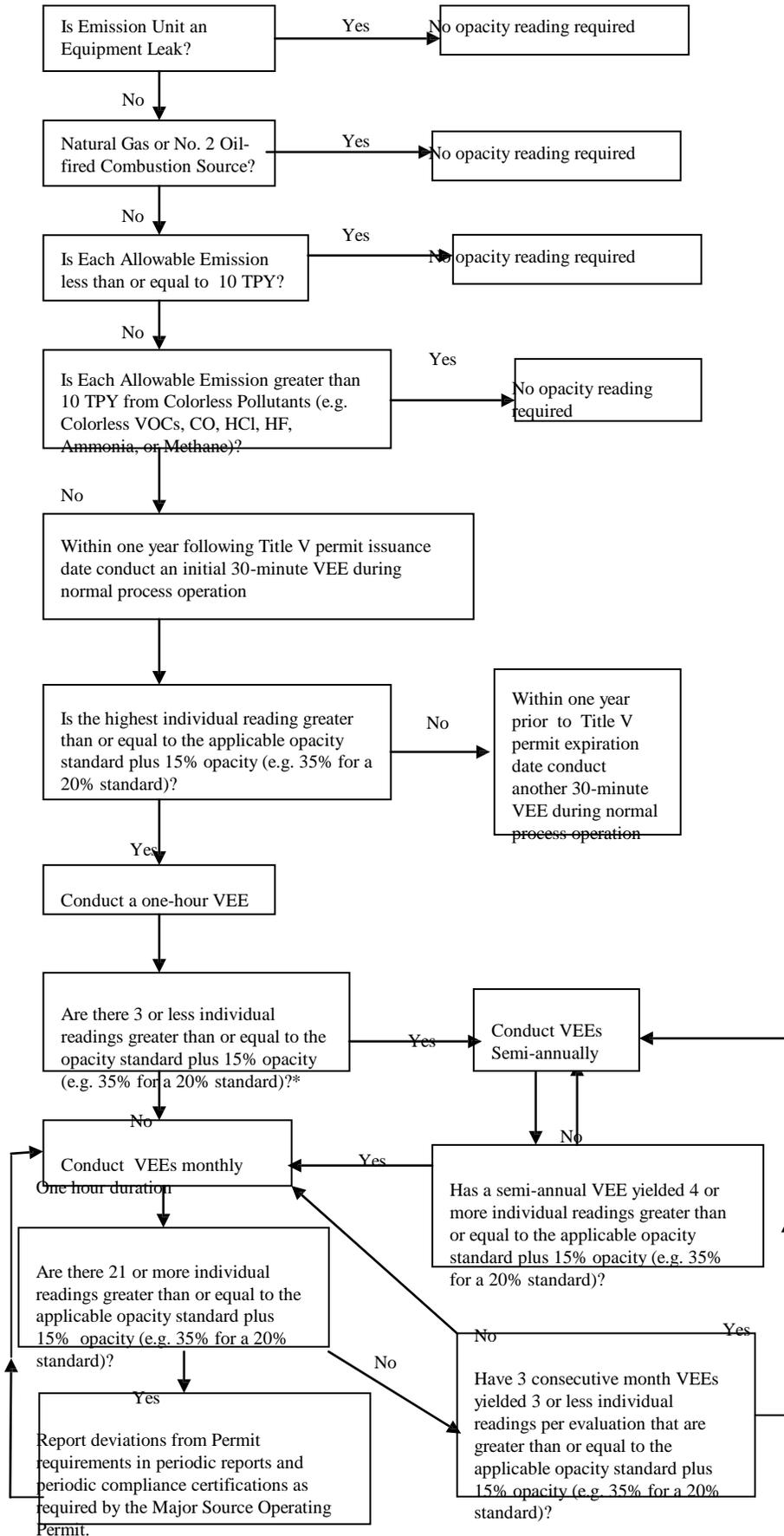
Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

**Reader Error**  
TVEE Method 2: The TAPCD declares non-compliance when 21 observations are read at the standard plus 15% opacity (e.g. 35% for a 20% standard).

\*The rationale for this is the fact that Rule 1200-03-05-.01 allows for an exemption of 5 minutes (20 readings) per hour and up to 20 minutes (80 readings) per day. With 4 or more excessive individual readings per hour the possibility of a daily exceedance exists.

Note: A company could mutually agree to have all of its sources regulated by EPA Method 9. Caution: Agreement to use Method 9 could potentially place some sources in non-compliance with visible emission standards. Please be sure before you agree.



## Decision Tree PM for Opacity for Sources Utilizing EPA Method 9\*

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, SO<sub>2</sub>, NO<sub>x</sub>, 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.

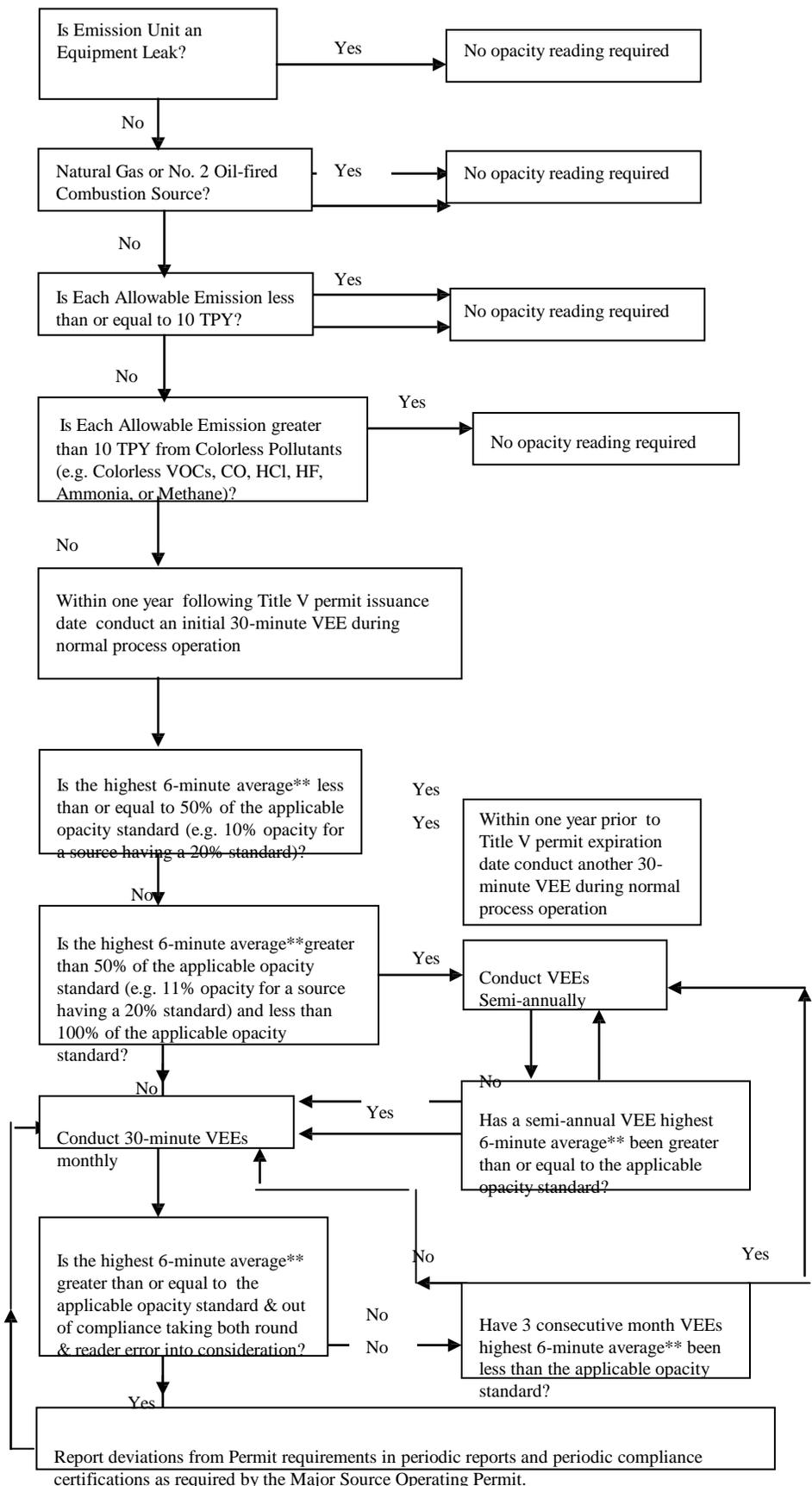
A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error  
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards: The TAPCD guidance is to declare 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

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**ATTACHMENT 2**

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**AP42 FIFTH EDITION UPDATED EMISSION FACTORS for  
NATURAL GAS COMBUSTION**

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Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO<sub>x</sub>) AND CARBON MONOXIDE (CO) FROM NATURAL GAS COMBUSTION<sup>a</sup>

Combustor Type (MMBtu/hr Heat Input) [SCC]	NO <sub>x</sub>		CO	
	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating	Emission Factor (lb/10 <sup>6</sup> scf) Rating	Emission Factor
Large Wall-Fired Boilers (>100) [1-01-006-01, 1-02-006-01, 1-03-006-01]				
Uncontrolled (Pre-NSPS) <sup>c</sup>	280	A	84	B
Uncontrolled (Post-NSPS) <sup>c</sup>	190	A	84	B
Controlled - Low NO <sub>x</sub> burners	140	A	84	B
Controlled - Flue gas recirculation	100	D	84	B
Small Boilers (<100) [1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03]				
Uncontrolled	100	B	84	B
Controlled - Low NO <sub>x</sub> burners	50	D	84	B
Controlled - Low NO <sub>x</sub> burners/Flue gas recirculation	32	C	84	B
Tangential-Fired Boilers (All Sizes) [1-01-006-04]				
Uncontrolled	170	A	24	C
Controlled - Flue gas recirculation	76	D	98	D
Residential Furnaces (<0.3) [No SCC]				
Uncontrolled	94	B	40	B

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. Emission factors are based on an average natural gas higher heating value of 1,020 Btu/scf. To convert from lb/10<sup>6</sup> scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

<sup>b</sup> Expressed as NO<sub>2</sub>. For large and small wall fired boilers with SNCR control, apply a 24 percent reduction to the appropriate NO<sub>x</sub> emission factor. For tangential-fired boilers with SNCR control, apply a 13 percent reduction to the appropriate NO<sub>x</sub> emission factor.

<sup>c</sup> NSPS=New Source Performance Standard as defined in 40 CFR 60 Subparts D and Db. Post-NSPS units are boilers with greater than 250 MMBtu/hr of heat input that commenced construction modification, or reconstruction after August 17, 1971, and units with heat input capacities between 100 and 250 MMBtu/hr that commenced construction modification, or reconstruction after June 19, 1984.

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION<sup>a</sup>

Pollutant	Emission Factor (lb/10 <sup>6</sup> scf)	Emission Factor Rating
CO <sub>2</sub>	120,000	A D E E D D B A
Lead	0.0005	B B
N <sub>2</sub> O (Uncontrolled)	2.2	C
N <sub>2</sub> O (Controlled-low-NO <sub>x</sub> burner)	0.64	
PM (Total) <sup>c</sup>	7.6	
PM (Condensable) <sup>c</sup>	5.7	
PM (Filterable) <sup>c d</sup>	1.9	
SO <sub>2</sub>	0.6	
TOC	11	
Methane	2.3	
VOC	5.5	

<sup>a</sup> Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from lb/10<sup>6</sup> scf to kg/10<sup>6</sup> m<sup>3</sup>, multiply by 16. To convert from lb/10<sup>6</sup> scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value.

TOC = Total Organic Compounds. VOC = Volatile Organic Compounds.

<sup>b</sup> Based on approximately 100% conversion of fuel carbon to CO<sub>2</sub>. CO<sub>2</sub>[lb/10<sup>6</sup> scf] = (3.67) (CON) (C)(D), where CON = fractional conversion of fuel carbon to CO<sub>2</sub>, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2x10<sup>4</sup> lb/10<sup>6</sup> scf.

<sup>c</sup> All PM (total, condensable, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM<sub>10</sub>, PM<sub>2.5</sub> or PM<sub>1</sub> emissions. Total PM is the sum of the filterable PM and condensable PM. Condensable PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

<sup>d</sup> Based on 100% conversion of fuel sulfur to SO<sub>2</sub>.

Assumes sulfur content is natural gas of 2,000 grains/10<sup>6</sup> scf. The SO<sub>2</sub> emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO<sub>2</sub> emission factor by the ratio of the site-specific sulfur content (grains/10<sup>6</sup> scf) to 2,000 grains/10<sup>6</sup> scf.

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**ATTACHMENT 3**

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**40 CFR 60 Subpart UUU**

**NSPS for Calciners and Dryers in Mineral Industries**

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§60.730 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

(b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in §60.731, "Mineral processing plant").

(c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

§60.731 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

*Calciner* means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. This definition includes expansion furnaces and multiple hearth furnaces.

*Control device* means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities.

*Dryer* means the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating.

*Installed in series* means a calciner and dryer installed such that the exhaust gases from one flow through the other and then the combined exhaust gases are discharged to the atmosphere.

*Mineral processing plant* means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

§60.732 Standards for particulate matter.

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test required by §60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

(a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm for dryers; and

(b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

§60.733 Reconstruction.

The cost of replacement of equipment subject to high temperatures and abrasion on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Calciner and dryer equipment subject to high temperatures and abrasion are: end seals, flights, and refractory lining.

§60.734 Monitoring of emissions and operations.

(a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.

(b) In lieu of a continuous opacity monitoring system, the owner or operator of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules fluid bed dryer a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.

(c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.

(d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

#### §60.735 Recordkeeping and reporting requirements.

(a) Records of the measurements required in §60.734 of this subpart shall be retained for at least 2 years.

(b) Each owner or operator who uses a wet scrubber to comply with §60.732 shall determine and record once each day, from the recordings of the monitoring devices in §60.734(d), and arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.

(c) Each owner or operator shall submit written reports semiannually of exceedances of control device operation parameters required to be monitored by §60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:

(1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or

(2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in §60.735(b) that is less than 90 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or

(3) Each daily wet scrubber liquid flow rate recorded as described in §60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrate compliance with the particulate matter standard.

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

[57FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

#### §60.736 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.732 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity from stack emissions.

(c) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of §60.734(d) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of §60.735(c).

§60.737 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions.

Authority: T.C.A. §§68-201-105 and 4-5-201 et. seq. Administrative History: Original ruled filed May 21, 1997; effective August 4, 1997.

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## ATTACHMENT 4

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### PERMIT SHIELD FOR STATE AND FEDERAL NON-APPLICABLE REQUIREMENTS

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The following requirements have been specifically identified as not applicable, based on the information submitted by the permittee in the Title V application dated December 12, 1996 and subsequent revisions.

### PERMIT SHIELD FOR FEDERAL NON-APPLICABLE REQUIREMENTS

Citation	Title	Reason for Non-Applicability	Permit Shield Requested
40 CFR 51	Requirements for Preparation, Adoption and Submittal of Implementation Plans	Not a source requirement	Yes
40 CFR 52	Approval and Promulgation of Implementation Plans	Not a source requirement	Yes
40 CFR 60	Subpart E – Standards of Performance for Incinerators	Not an affected facility. Teksid is not a municipal waste combustor	Yes
	Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	Not an affected facility. All storage tanks are less than 10,000 gallons	Yes
	Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	Not an affected facility. All storage tanks are less than 10,000 gallons	Yes
	Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984	Not an affected facility. All storage tanks are less than 10,000 gallons	Yes
	Subpart EE – Surface Coating of Metal Furniture	Nemak USA, Inc. does not manufacture metal furniture	Yes
	Subpart VV – Standards of	Not an affected facility. Nemak	Yes

<b>Citation</b>	<b>Title</b>	<b>Reason for Non-Applicability</b>	<b>Permit Shield Requested</b>
	Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	USA, Inc. does not manufacture Synthetic Organic Chemicals	
40 CFR 61	National Emission Standards for Hazardous Air Pollutants (NESHAPS)		
	Subpart M – Standards of Performance for Asbestos	The facility does not contain asbestos	Yes
40 CFR 63	NESHAPS for Source Categories		
	Subparts F thru I	Nemak USA, Inc. does not manufacture or store synthetic Organic chemicals	Yes
RRR	Secondary Aluminum Production	Nemak USA, Inc. is an aluminum foundry and melts only clean charge and runaround scrap. Therefore, Nemak USA, Inc. is not subject to RRR.	Yes
EEEEEE	National Emission Standards for Iron and Steel Foundries	Nemak USA, Inc. is not an Iron or Steel Foundry.	Yes

### PERMIT SHIELD FOR STATE NON-APPLICABLE REQUIREMENTS

<b>Citation</b>	<b>Title</b>	<b>Reason for Non-Applicability</b>	<b>Permit Shield Requested</b>
1200-3-22	Lead Emission Standards	Nemak USA, Inc. does not emit lead	Yes
1200-3-25	Standard for Infectious Waste Incinerators	Nemak USA, Inc. does not have an infectious waste incinerator. Units to be shielded: Heat Treat Furnaces, Melting Furnaces and Sand Reclaim Burner	Yes

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**ATTACHMENT 5**

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**CASTING RETURN INSPECTION PROCEDURE**

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**Revised March 18, 2013**

1. All castings returned to the permittee must be washed by the contractor or the permittee after any machining to remove any metalworking fluids. Each batch of castings as returned to the permittee as washed must include certification that the castings have been washed at the contractor machining facility to remove any metal working fluid. Water (exclusively) washing will not qualify as washing for this purpose. If the permittee is to wash the casting, then no certification is required.

If washing is not conducted at Nematik facility, then it must be certified in writing by the contractor that conducts the machining and washing.

2. The metalworking fluids (MWF) and washing compounds, used to clean castings, shall contain at least 85% water by weight as applied. An MWF or cleaning mixture that fulfills this requirement will be referred to as a “water-based” solution.

3. The company shall maintain a record of Material Safety Data Sheets (MSDS) for all MWF and washing compounds used to remove the MWF as used by each off-site machining contractor. These MSDS shall be maintained at the permittee’s facility, and shall be kept available for inspection by the Division’s representative. Additionally, the company shall maintain records of the composition of the MWF’s and cleaning solution, as applied.

4. If washed casting are received from contractor, then the permittee must institute a simple inspection plan whereby each shipment of returned castings that is received must be inspected for evidence of oil or grease before further processing. The written plan must be received and approved in writing by the Division in order to be acceptable. The records of inspections shall be maintained for no less than 5 years. The following information shall be recorded for each shipment:

- a) Load identifier (company from, date, size / weight)
- b) Name of inspector,
- c) Condition of material with respect to any contamination with oil or grease, for example:

"no oil or grease visible,"

"only visible oil or grease is grease pencil marking on several heads/units," "load full of oil or grease and returned to vendor."

“any other type of contamination”

5. The permittee shall certify that castings returned to this facility from an off-site machining contractor or casting that are washed by the permittee shall qualify as “clean charge” as defined at 40 CFR 63 Subpart RRR—National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production. The definition is provided below.

*Clean charge* means furnace charge materials, including molten aluminum; T-bar; sow; ingot; billet; pig; alloying elements; aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 °C (650 °F) or higher; aluminum scrap delacquered/decoated at 482 °C (900 °F) or higher, and runaround scrap.

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**ATTACHMENT 6**

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**DIVISION'S LETTER DATED AUGUST 12, 2013 (CASTING RETURN  
INSPECTION PROCEDURE)**

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STATE OF TENNESSEE  
**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

**DIVISION OF AIR POLLUTION CONTROL**  
**WILLIAM R. SNODGRASS TENNESSEE TOWER**  
**312 ROSA L. PARKS AVENUE, 15<sup>th</sup> FLOOR**  
**NASHVILLE, TN 37243-1531**

**August 12, 2013**

Mr. Alan Kitchen  
Environmental Engineering & Safety Manager (USA/Canada)  
Nemak USA, Inc.  
P.O. Box 296  
Dickson, TN 37055

**Re: 22-0072 Procedure for returned castings**

Dear Mr. Kitchen:

This letter is in response to an inquiry from your company as to the circumstances under which castings returned from a machining contractor (not a customer) might be melted at your plant site without causing your plant to become subject to 40 CFR 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production. The Division has determined that, under certain circumstances, your facility may accept returned castings (but not scrap, such as gates, risers, or turnings, etc.) from an off-site machining contractor for the purpose of remelting without becoming subject to Subpart RRR. In order to qualify for this consideration, the company must submit an inspection proposal for each individual contractor. The inspection procedure must contain the requirements listed below:

1. All castings returned to the permittee from an off-site machining contractor must be washed after any machining to remove any metalworking fluids. Each batch of castings as returned to the permittee must include certification that the castings have been washed to remove any metal working fluid prior to melting. Water (exclusively) washing will not qualify as washing for this purpose. Washing must be certified in writing by the company that conducts the washing.
2. The metalworking fluids (MWF) and washing compounds, used to clean castings, shall contain at least 85% water by weight as applied. An MWF or cleaning mixture that fulfills this requirement will be referred to as a "water-based" solution.
3. The company shall maintain a record of Material Safety Data Sheets (MSDS) for all MWF and washing compounds used to remove the MWF as used by each off-site machining contractor. These MSDS shall be maintained at the permittee's facility, and shall be kept available for inspection by the Division's representative. Additionally, the company shall maintain records of the composition of the MWF's and cleaning solution, as applied.

Mr. Kitchen  
Nemak USA, Inc.  
Page 2 of 2

4. The permittee must institute a simple inspection plan whereby each shipment of returned castings that is received must be inspected prior to melting for evidence of oil or grease before further processing. The written plan must be received and approved in writing by the Division in order to be acceptable. The records of inspections shall be maintained for no less than 5 years. The following information shall be recorded for each shipment:

- a) Load identifier (company from, date, size / weight)
- b) Name of inspector,
- c) Condition of material with respect to any contamination with oil or grease, for example:
  - "no oil or grease visible,"
  - "only visible oil or grease is grease pencil marking on several heads/units,"
  - "load full of oil or grease and returned to vendor."
  - "any other type of contamination"

5. The permittee shall certify that castings returned to this facility from an off-site machining contractor shall qualify as "clean charge" prior to melting as defined at 40 CFR 63 Subpart RRR—National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production. The permittee may assume returned castings are clean charge if the above criteria in sections 1-4 are met. Note that this procedure is valid for castings only, and not for scrap, such as gates, risers, and turnings. The definition of "clean charge" is provided below.

*Clean charge means furnace charge materials, including molten aluminum; T-bar; sow; ingot; billet; pig; alloying elements; aluminum scrap known by the owner or operator to be entirely free of paints, coatings, and lubricants; uncoated/unpainted aluminum chips that have been thermally dried or treated by a centrifugal cleaner; aluminum scrap dried at 343 °C (650 °F) or higher; aluminum scrap delacquered /decoated at 482 °C (900 °F) or higher, and runaround scrap.*

If you have any questions concerning this correspondence, please contact Younes Aleali at (615) 532-0541.

Sincerely,



Randall Thompson, Chief  
Middle Tennessee Permit Program

cc: Nashville Environmental Field Office

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**ATTACHMENT 7**

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**COMPLIANCE ASSURANCE MONITORING (CAM) PLAN**

**DATED FEBRUARY 18, 2014**

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**COMPLIANCE ASSURANCE MONITORING PLAN FOR TITLE V RENEWAL PERMIT**

**I. Background**

A. Affected Emission Unit(s):

CAM Affected Sources – are sources affected if the following criteria is met:

- (1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section (Emission units are subject to MACT control device compliance monitoring standards are considered to be meeting Part 64 requirements); and
- (2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and
- (3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this paragraph, “potential pre-control device emissions” shall have the same meaning as “potential to emit,” as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.
- (4) Are not otherwise exempt

Nemak has the following sources that are controlled and are not subject to a MACT standard:

- Emission Source 22-0072-47: Core Making with Packed Bed Scrubber for control of TE emissions as VOC.
- Emission Source 22-0072-65: Core Shakeout with Baghouse for control of PM emissions.
- Emission Source 22-0072-69: Sand Reclamation with Baghouse for control of PM emissions.
- Emission Source 22-0072-71: Core Sand Transport with Baghouse for control of PM emissions.
- Applicable Regulations, Emission Limits, Monitoring Requirements

Emission Unit	Pollutant	T.V. Emission Limitations	Basis	Regulation	CAM Calculation Basis	Title V Monitoring Requirements
-47-	Catalyst (as VOC)	176.8 tons VOC/12 consecutive mos	Permit Condition	TAPCR 1200-3-7-.07(2)	VOC - Catalyst Usage* and Est. Control Efficiency of 99%	Record VOC material usage (monthly), Scrubber liquid flow rate. Scrubber liquid pH
-65-	PM	0.7 lbs/hr	Permit Condition	TAPCR 1200-3-7-.01(5)	Emission Limitation, Baghouse Efficiency, Engineering Judgment	Daily pressure drop monitoring across baghouses

Emission Unit	Pollutant	T.V. Emission Limitations	Basis	Regulation	CAM Calculation Basis	Title V Monitoring Requirements
-69-	PM	4.1 lbs/hr	Permit Condition	TAPCR 1200-3-7-.01 and 40 CFR Part 60, Subpart UUU	Emission Limitation, Baghouse Efficiency, Engineering Judgment	Daily pressure drop monitoring across baghouses
-71-	PM	6.5 lbs/hr	Permit Condition	TAPCR 1200-3-7-.01(5)	Emission Limitation, Baghouse Efficiency, Engineering Judgment	Daily pressure drop monitoring across baghouses

\* For core making operation, the VOC resin emission calculations are based on uncontrolled emission factors or test results. However, the catalyst / accelerant emissions (previously Triethylamine, replaced by DMIPA – dimethylisopropylamine) are based on catalyst usage and the control efficiency of the scrubber.

**Monitoring Approach**

The monitoring approach used for control devices that are subject to CAM is summarized in the following tables:

**TABLE 1: SOURCE 22-0072-47, Core Making**

	Indicator 1	Indicator 2
<b>I. Indicator</b>	Operating Parameters Continuous pH Monitoring Scrubber Flow Rate	Inspection & Maintenance Program
Measurement Approach	Removal of VOC gases is dependent on availability of adequate alkalinity and flow rate. 1) The pH of the scrubber liquid will be continuously monitored. The data generated will be recorded on a continuous strip chart. 2) Flowrate Monitoring: The water flow rate is monitored and will be recorded once per day.	Control Device: The scrubber shall be maintained and operated in accordance with manufacturer’s specifications. Any maintenance and repairs performed will be logged. A visual inspection of the scrubber spray bars to insure an even distribution will be made on a daily basis and the results logged.
<b>II. Indicator Range</b>	Excursion: 1) pH: <b>An excursion is identified as any 3-hr block average liquid pH of more than 5.5.</b> Excursions require the source to investigate the scrubber and/or monitoring equipment performance and make any repairs or adjustments as necessary. A log of any repairs shall be maintained and made available upon request. 2) Flow rate: <b>A excursion is identified as</b>	Excursion: <b>An excursion is identified as the visual observation of uneven spray delivery.1</b> Excursions require the source to investigate the scrubber and/or monitoring equipment performance and make any repairs or adjustments as necessary

	<b>Indicator 1</b>	<b>Indicator 2</b>
	<p><b>any flow rate observation of less than 450 gallons/min.</b> Excursions require the source to investigate the scrubber and/or monitoring equipment performance and make any repairs or adjustments as necessary</p> <p>Deviation: 1) pH: A deviation is defined as a failure to take reasonable actions following a pH excursion. 2) A deviation is identified as failure to perform flow rate monitoring Deviations trigger corrective action and reporting.</p>	<p>Deviation: A deviation is defined as a failure to take reasonable actions following observation of improper operation. Deviations trigger an inspection, corrective action and reporting.</p>
<b>III. Performance Criteria</b>		
a. Data Representativeness	<p>1) Observations of liquid pH readings above the maximum under normal operating conditions are an indication that investigation and correction is required. 2) Calibration and maintenance of flow rate monitoring equipment to assure accurate reading and control device operation.</p>	<p>2) Scrubber maintenance to assure proper operation.</p>
b. QA/QC Practices and Criteria	<p>pH monitoring and recording equipment will be calibrated in accordance with manufacturer’s specifications on an annual basis.</p>	<p>Maintenance, or other qualified personnel perform pH and flow rate monitoring equipment calibrations and maintenance and control device maintenance.</p>
c. Monitoring Frequency	<p>pH readings are continuously recorded on a stripchart. The stripchart is reviewed to ensure that no 3-hr average exceeds 5.5. . In addition to the stripchart, the production line is equipped with an interlock that shuts down the process before the pH rises above 5.5. pH and flow rate monitoring and recording equipment calibrations are done in accordance with manufacturer’s specifications on an annual basis.</p> <p>The production process is equipped with a back-up scrubber.</p>	<p>Control device maintenance is performed in accordance with manufacturer’s specifications. Results of inspections and maintenance activities performed are recorded in control device maintenance logs.</p>

**TABLE 2:**  
**SOURCE 22-0072-65, Core Shakeout SOURCE 22-0072-69, Sand**  
**Reclamation SOURCE 22-0072-71, Core Sand Transport**

	<b>Indicator 1</b>	<b>Indicator 2</b>
<b>I. Indicator</b>	Daily Pressure Gauge Checks	Inspection & Maintenance Program
Measurement Approach	Checks of pressure drop across the baghouses will be performed daily (when the source is in operation). <b>If the pressure drop range is observed below 1.0 inch of water then an excursion will be triggered requiring investigation.</b>	As part of the inspection and maintenance program, an annual inspection of the baghouse will be made and any repairs made. <b>Compliance is also assured by performing and recording in a log all maintenance on the air pollution control device, as require to maintain the specified emission limit for this source.</b>
<b>II. Indicator Range</b>	An excursion is identified as any pressure reading below the minimum operating range. Excursions require the source to investigate the baghouse performance and make any repairs or adjustments as necessary. A log of any repairs shall be maintained and made available upon request. A deviation is defined as a failure to perform daily pressure gauge checks when the source is operating. Deviations trigger corrective action and reporting	A deviation is identified as failure to perform annual inspections. Deviations trigger an inspection, corrective action and reporting.
<b>III. Performance Criteria</b>		
a. Data Representativeness	Pressure gauge checks will be made of the baghouse. Observations of gauge readings below 1.0 ” w.g., under normal operating conditions are an indication that investigation and correction is required.	Baghouses inspected visually for deterioration
b. QA/QC Practices and Criteria	Pressure drop gauges will be calibrated or replaced at least annually.	Maintenance, or other qualified personnel perform inspections and baghouse maintenance.
c. Monitoring Frequency	Pressure drop gauge readings are conducted daily when sources are operating. Results of the daily readings shall be recorded. A gauge reading below 1.0” w.g., is an excursion as outlined in Section II, Indicator Range.	At a minimum annually (once per year on a calendar year basis).  Results of inspections and maintenance activities performed are recorded in baghouse maintenance logs.

### **III. Justification**

- **Packed Bed Scrubber**

- a. **Background:**

The core making operation is equipped with a Packed Bed Scrubber (53A) and a Backup Scrubber (53B) to allow switching should one scrubber go down or out of parameters. This source shall not operate without said control (s) system.

- Rational for Selection of Performance Indicators:**

Monitoring (and recording) of the scrubber liquid pH and flow rate was selected as the performance indicators because in order to achieve the necessary emission reduction, a minimum water flow rate must be supplied to absorb the given amount of VOC in the gas stream, given the size and shape of the tower and height of the packed bed. If the liquid/gas ratio decreases below a minimum point, sufficient mass transfer of the pollutant from the gas phase to the liquid phase will not occur. Maintaining the minimum flow, even during periods of reduced gas flow, will ensure the required liquid/gas ratio is achieved at all times. Removal of TE is dependent on availability of adequate alkali as indicated by slurry alkalinity and flow rate.

An inspection and maintenance (IRM) program was chosen as a performance indicator due to the high reliability of properly maintained scrubber at controlling VOC/HAP emissions. A key element in the IRM program is scrubber component reliability, which is why an inspection and maintenance was selected.

- b. Rational for Selection of Indicator Ranges:**

Scrubber liquid pH and flow rate, in addition to being a requirement of the facility Title V permit, quickly indicates if the scrubber is operating correctly and is achieving the required removal efficiency. Calibration of the monitoring equipment demonstrates if the unit is correctly reading pH and flow.

Maintenance of the scrubbers in accordance with manufacturer's specifications will assure that the control device will continue to operate in a manner that will assure that the required destruction efficiency will be met.

- **Baghouses**

**c. Background:**

Dust and air enter on one side of the bag filters. The air passes through the bag filters, leaving the dust behind. Some of the dust drops to the bottom of the collector and some of it is held against the bag filter by the airflow. After extended use, the dust becomes embedded in the bag filter's fabric. If the cleaning cycle is unable to dislodge the embedded dust, the bag filter becomes clogged. This reduces the airflow through the system and slows the transfer process. The bag filters also need to be changed if a hole wears through one of them, or if a bag filter comes loose. This condition is detectable by measuring the pressure drop across the baghouse as well as by annual internal visual inspections.

**Rational for Selection of Performance Indicators:**

Pressure drop readings were selected as an indicator because the operation of the baghouse outside the pressure drop range is indicative of baghouse performance. If the baghouse is performing properly, then the pressure drop gauge should read in the normal operating range. The minimum operating range for the affected sources is defined as 1" w.g. A reading outside of the normal operating range indicates reduced performance of the particulate control device. A decrease in pressure drop is indicative of bag failure. The cause of the pressure measurement outside the normal operating range will be investigated and corrected.

An inspection and maintenance (IRM) program was chosen as a performance indicator due to the high reliability of properly maintained baghouses at controlling particulate emissions. A key element of the IRM program is bag filter reliability, which is why an annual internal inspection of bag houses and bags was selected as a performance indicator.

**d. Rational for Selection of Indicator Ranges:**

The dust handling system is normally operated on a daily basis. A daily check of the pressure gauge will quickly indicate if the baghouse is operating normally.

Due to the high reliability of baghouses in the types of applications used by Nematik, an indicator range of annual (on a calendar year basis) is considered adequate enough to identify potentially degradations in bag filter performance before they fail. As a result of these annual inspections, corrective actions will be initiated, and any corrective action taken will be recorded.

# TITLE V PERMIT STATEMENT

**Facility Name: Nemak USA, Inc.**

**City: Dickson**

**County: Dickson**

**Date Application Received: December 10, 2009**

**Date application Deemed Complete: January 15, 2010**

**Emission Source Reference No. 22-0072**

**Title V Renewal (1st renewal) Permit No. 563240**

## 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 **Nemak USA, Inc.** 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 of emission source(s):

Aluminum Foundry: Production of Cast Aluminum Cylinder Heads for Automobile Engines:

**Area 01**, Aluminum Melting: 41: Melting Hearth Furnaces 151 and 152; 42: Melting Hearth Furnace 153; 43: 50 Ton Holding Furnace 101 and Pumping Station 1; 44: 50 Ton Holding Furnace 102 and Pumping Station 2; 45: 50 Ton Holding Furnace 103 and Pumping Station 3.

**Area 02**, Sand Core Production: 46: Hot Box Machines 1 and 2; 47: Core-Making 1 through 21.

**Area 03**, Aluminum Casting: 49 to 64: Pouring Stations 1 through 16 and each associated 4.6 Ton Holding Furnace, Numbers 1 through 16.

**Area 04**, Finishing: 65: Core Shakeout with Baghouse.

**Area 05**, Heat Treating: 67: Heat Treat Furnace #1 with Water Quench and Heat Treat Furnace #2 with Water Quench.

**Area 06**, Sand Reclaim and Storage: 69: Sand Reclamation Unit #1 with Metal Separator #2; 70: 3 Sand Storage Silos; 71: Pneumatic Sand Transport (Core Line Sand Transport #1); 72: Pneumatic Sand Transport (Core Line Sand Transport #2); 73: 50-Ton Sand Silo #7 and Day Bin with Baghouse.

**Area 07**, Emergency Generator Engine. This source is being added to the Title V renewal permit through Minor Modification procedures.

**B. 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 (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).

**C. Regulatory Status**

1. PSD/NSR

This facility *is* a major source under PSD.

2. Title V Major Source Status by Pollutant

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?	
		Major Source Status	
PM	Yes	Yes	
PM <sub>10</sub>	Yes	No	
SO <sub>2</sub>	Yes	No	
VOC	Yes	Yes	
NO <sub>x</sub>	Yes	No	
CO	Yes	Yes	
Individual HAP	Yes	Yes	
Total HAPs	Yes	Yes	

**3. MACT Standards**

This facility is a major source for HAPs. This facility *is not* subject to the Subpart RRR Secondary Aluminum MACT standard. However, the emergency generator engine is subject to the Subpart ZZZZ RICE standard.

**4. Program Applicability**

Are the following programs applicable to the facility for this Title V permit?

PSD (**yes**)

NESHAP (yes)

NSPS (**yes**)

Compliance Assurance Monitoring (CAM) **yes**

## II. Compliance Information

### A. Compliance Status

Is the facility currently in compliance with all applicable requirements? (**yes**)

If no, explain.

Yes

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

If yes, explain.

## 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

Not Applicable

### D. Acceptance of Returned Castings

The company asked for determination of conditions under which returned castings could be accepted from a third party contractor (one of more facilities that would receive castings for machining before castings would be sent to the customer) and avoid becoming classified as subject to the Secondary Aluminum MACT 40 CFR 63 Subpart RRR. That procedure is included as Attachments #4 and #5.

## IV. Public Participation Procedures

Notification of this draft permit was mailed to the following environmental agencies:

1. U.S. EPA Region IV
2. Nashville Metropolitan Health Department
3. Kentucky Department for Air Quality

### **Facility-wide Potential Emissions**

Potential emissions of criteria air pollutants are listed below:

<b>REGULATED POLLUTANTS</b>	<b>POTENTIAL EMISSIONS TONS PER 12-MONTH BASIS</b>
<b>PARTICULATE MATTER (PM)</b>	<b>271.11</b>
<b>SO<sub>2</sub></b>	<b>4.33</b>
<b>VOC</b>	<b>290.0</b>
<b>NO<sub>x</sub></b>	<b>75.6</b>
<b>CO</b>	<b>124.36</b>
<b>Greenhouse Gases (GHG)</b>	<b>Greater than 100,000 tons</b>

### **Permitting Activities Since Original permit Issuance (Previous Permit 546412)**

#### **SIGNIFICANT MODIFICATION #1 (SOURCE 22-0072-41) dated March 9, 2007**

**This modification affected the following process:**

**22-0072-41 - Aluminum Foundry- Production of Cast Aluminum Cylinder Heads for Automobile Engines:**

Source #01-1; Two Natural Gas Fired (8.4 MM Btu/hr each Furnace) Melting Hearth Furnaces #151 and #152, Stacks S3 and S17.

Significant modification #1 was a request to modify condition E4-6 of Title V permit 546412 which states Melting Furnaces #1 and #2 shall not melt aluminum simultaneously. The facility requested to modify the process line to enable both furnaces to be operated simultaneously.

#### **Construction permit no. 961614 for source 22-0072-43 issued on November 18, 2008**

This construction permit was based upon a request to physically modify an existing holding furnace to process scrap metal. However, this modification was never constructed

#### **Request for an OpFlex #1 dated April 2, 2009**

This OpFlex was a request to install a new Shaker at source 22-0072-65.  
Operating parameters.

#### **Request for an OpFlex #2 dated December 13, 2013**

This OpFlex was a request to replace the dust collector for Storage Silos #1, #2 and #3 with the same model and same Operating parameters.

**Note:** Per company's letter dated December 13, 2013, Chuck Burgess, Environmental Manager is the new technical

contact (615-740-4350) for the facility.

**Note:** Per company's letter dated April 24, 2013, Charles McDaniel is the new Responsible Official for the facility.

**Minor Permit Modification #1 Request for an Existing (1986) Emergency Generator Engine**

This is included with the Title V renewal as ref. no. 22-0072-75

**Company's Comments dated March 27, 2014 on Title V Renewal Permit:**

Nemak requested to change the indicated capacity of certain holding furnaces at Source 22-0072-49 from 4.6 to 5.6 metric tons due to relining with refractory over time. This is specified in the source description. The company also requested to include an statement in the source description that nitrogen purging under Source 22-0072-49 is being conducted at this source.

**No Comments from EPA or Public concerning Title V Renewal draft permit were received.**

Title V renewal permit 563240 was issued on May 6, 2014.

End of changes during the previous permit timeframe.

**Changes since the issuance of T5 permit 563240:**

Administrative Amendment #1 Change to replace Charles McDaniel as the responsible official to Randy Dickey via letter dated July 28, 2014.

Minor modification #1 request dated July 30, 2014, to replace a furnace with a larger furnace and to modify the carousel #6 from a 10 point index to a 5 point index and add equipment to the carousel.

Minor modification #2 request dated August 14, 2014, to add the 4<sup>th</sup> degassing station to the holding furnace in source 22-0072-45.

Significant Modification #1 request dated May 13, 2015 to add a Thermal Sand Reclamation System with Baghouse control.

Minor Modification request dated May 13, 2016 (Combined with Significant Modification #) .to redirect the exhaust from the four degassing stations from the Pouring station exhaust S50 to the Core shakeout Exhaust S35.