



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 9-5620-00091/00001
Mod 0 Effective Date: 12/15/2014 Expiration Date: 12/14/2024
Mod 1 Effective Date: 07/11/2018 Expiration Date: 12/14/2024

Permit Issued To: TPI ARCADE INC
7888 RTE 98
ARCADE, NY 14009

Facility: TPI ARCADE, INC
7888 ST RTE 98
ARCADE, NY 14009

Contact: DAN STAHL
TPI ARCADE INC
7888 ST RTE 98
ARCADE, NY 14009

Description:

(1) TPI Arcade, Inc. owns and operates an aluminum foundry located at 7888 Route 98, Arcade, New York. The facility melts virgin aluminum ingots in two gas fired furnaces and two electric induction furnaces for use in precision molding operations. The electric furnaces have a combined aluminum metal melt capacity of 1,500 pounds per hour. The gas-fired furnaces have a combined aluminum melt capacity of 3,000 pounds per hour.

(2) This permit modification is for the installation and operation of a Jackson Oven Model 8814 Batch Process Oven with Side Mount Heater. The oven is used to facilitate the removal of cores from aluminum castings so that the castings will not be damaged. The oven includes a 0.003-MMBtu/hr natural gas-fired burner to bake the castings and cores at 1000 F for four hours in an oxygen-starved atmosphere. The cores consist of industrial sand, binder and co-reactant that are sealed with a wash.

(3) Particulate emissions from the bake-out oven are subject to the applicable requirements of 40 CFR 60 Subpart UUU Standards of Performance for Calciners and Dryers in Mineral Industries. Subpart UUU limits particulate matter (PM) emissions to 0.040 grains per dry standard cubic foot of exhaust gas, and 10% opacity. Compliance with the 40 CFR 60 Subpart UUU grain standard is demonstrated by stack testing within 180-days of oven startup. Compliance with the opacity standard is also verified within 180-days of start-up.

(4) PM emissions are also subject to 6 NYCRR Part 212. However, in accordance with 6NYCRR Part 212-1.5(e)(1), a process emission source subject to a Federal NSPS under 40 CFR 60 satisfies the requirements of Part 212 for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the facility is in



compliance with the relative Federal regulation. As such, the Federal NSPS-UUU takes precedence over the less conservative 0.050 grains/dscf particulate emission limit of Part 212-2.4(b)(1).

(5) Air toxic emissions produced from the baking of the sand, binder, co-reactant and wash were evaluated in accordance with the DAR-1 program policy. The emissions included air contaminants listed in Section 212-2.2 Table 2 – High Toxicity Air Contaminant (HTAC) List and air contaminants not listed on Table-2, or Non-HTAC.

(6) The potential emissions from each HTAC are less than the annual mass emission limit of Table 2 and do not require any further evaluation as indicated in 6NYCRR Part 212-2.1(a). The Non-HTAC's were evaluated using Subdivision 212-2.3(b), Table 4 – Degree of Air Cleaning Required for Non-Criteria Air Contaminants. Only one non-HTAC is emitted at a rate of greater than 100 pounds per year, specifically crystalline silica (CAS# 14464-46-1), a component of industrial sand. Crystalline silica is a suspected carcinogen and, is therefore given an Environmental Rating A. The emission rate potential of silica is 0.038 lb/hr. In accordance with Subdivision 212-2.3(b), Table 4, air dispersion modeling is used to compare the maximum offsite impacts to the Annual Guideline Concentration. The results of the Aerscreen analysis indicated potential off-site ambient impacts are below the guideline concentrations for crystalline silica.

(7) This permit modification maintains the applicable regulation for the foundry processes, namely 40CFR63 Subpart ZZZZZZ, the National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries. The furnaces are used to melt aluminum alloys that contain nickel and manganese potentially in excess of 0.1 and 1.0 percent by weight, respectively.

(8) This permit modification maintains the facility-wide volatile organic compound (VOC) emission cap of 45 tons per year (tpy) to avoid Title V permitting and New Source Review. Current VOC emissions are less than 10 tpy.

(9) This permit modification updated the older 6 NYCRR Part 212 conditions to the new Part 212 citations.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: LISA M CZECHOWICZ
NYSDEC - REGION 9
270 MICHIGAN AVE
BUFFALO, NY 14203-2915

Authorized Signature: _____ Date: ___ / ___ / ____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
 - Applications for permit renewals, modifications and transfers
 - Applications for permit renewals, modifications and transfers
 - Permit modifications, suspensions or revocations by the Department

Facility Level

- Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS



DEC GENERAL CONDITIONS
****** General Provisions ******
GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department

Applicable State Requirement: ECL 19-0305

Item 1.1:

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for permit renewals, modifications and transfers

Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



Condition 1-1: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 1-1.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 1-1.2:

The permittee must submit a renewal application at least 180 days before the expiration of permits for Title V and State Facility Permits.

Item 1-1.3

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 4: Permit modifications, suspensions or revocations by the Department
Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:

The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:
NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits

New York State Department of Environmental Conservation
Facility DEC ID: 9562000091



270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

New York State Department of Environmental Conservation

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Permit Under the Environmental Conservation Law (ECL)

**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY
PERMIT**

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7888 RTE 98
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Facility: TPI ARCADE, INC
7888 ST RTE 98
ARCADE, NY 14009

Authorized Activity By Standard Industrial Classification Code:
3365 - ALUMINUM FOUNDRIES

Mod 0 Permit Effective Date: 12/15/2014

Permit Expiration Date: 12/14/2024

Mod 1 Permit Effective Date: 07/11/2018

Permit Expiration Date: 12/14/2024



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1-1 6 NYCRR 201-6.4 (g): Non Applicable requirements
- 1 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- *2 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 3 6 NYCRR 211.1: Air pollution prohibited
- 1-2 6 NYCRR 212-1.6 (a): Compliance Demonstration
- 1-3 6 NYCRR 212-2.4 (b): Compliance Demonstration
- 6 40CFR 63.11550(a)(1), Subpart ZZZZZZ: Cover or enclose melting furnace
- 7 40CFR 63.11550(a)(2), Subpart ZZZZZZ: Metal scrap HAP content
- 8 40CFR 63.11550(a)(3), Subpart ZZZZZZ: Management practices
- 9 40CFR 63.11553(a), Subpart ZZZZZZ: Compliance Demonstration
- 10 40CFR 63.11553(b), Subpart ZZZZZZ: Compliance Demonstration
- 11 40CFR 63.11553(c)(1), Subpart ZZZZZZ: Compliance Demonstration
- 12 40CFR 63.11553(c)(2), Subpart ZZZZZZ: Compliance Demonstration
- 13 40CFR 63.11553(d), Subpart ZZZZZZ: Format of records

Emission Unit Level

EU=0-1CAST,Proc=CBO

- 1-4 6 NYCRR 212-1.5 (e) (1): Compliance Demonstration
- 1-5 40CFR 60, NSPS Subpart UUU: Compliance Demonstration

EU=0-1CAST,Proc=MOU

- 1-6 6 NYCRR 212-2.1 (b): Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 15 ECL 19-0301: Contaminant List
- 16 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 17 6 NYCRR Subpart 201-5: Emission Unit Definition
- 18 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 19 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 20 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

- 21 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 22 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

EU=0-1CAST,Proc=CBO

- 1-7 6 NYCRR 212-2.1: Compliance Demonstration

NOTE: * preceding the condition number indicates capping.



FEDERALLY ENFORCEABLE CONDITIONS

****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Sealing - 6 NYCRR 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation.

Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: Maintenance of Equipment - 6 NYCRR 200.7

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,



required to operate such device effectively.

Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Recycling and Salvage - 6 NYCRR 201-1.7

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item F: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item G: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item H: Proof of Eligibility for Sources Defined as Trivial



Activities - 6 NYCRR 201-3.3 (a)

The owner and/or operator of an emission source or unit that is listed as being trivial in 6 NYCRR Part 201 may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item I: Required Emission Tests - 6 NYCRR 202-1.1

An acceptable report of measured emissions shall be submitted, as may be required by the Commissioner, to ascertain compliance or noncompliance with any air pollution code, rule, or regulation. Failure to submit a report acceptable to the Commissioner within the time stated shall be sufficient reason for the Commissioner to suspend or deny an operating permit. Notification and acceptable procedures are specified in 6 NYCRR Subpart 202-1.

Item J: Open Fires Prohibitions - 6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item K: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item L: Federally Enforceable Requirements - 40 CFR 70.6 (b)



All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

FEDERAL APPLICABLE REQUIREMENTS

The following conditions are federally enforceable.

Condition 1-1: Non Applicable requirements
Effective between the dates of 07/11/2018 and 12/14/2024

Applicable Federal Requirement:6 NYCRR 201-6.4 (g)

Item 1-1.1:

This section contains a summary of those requirements that have been specifically identified as being not applicable to this facility and/or emission units, emission points, processes and/or emission sources within this facility. The summary also includes a justification for classifying any such requirements as non-applicable.

Condition 1: Facility Permissible Emissions
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 1.1:

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following
Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 0NY998-00-0 (From Mod 1) PTE: 90,000 pounds
per year
Name: VOC

Condition 2: Capping Monitoring Condition
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 2.1:

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would

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otherwise be subject to:

6 NYCRR Subpart 201-6

6 NYCRR Subpart 231-2

Item 2.2:

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 2.3:

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 2.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 2.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 2.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 2.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

FACILITY WIDE VOC EMISSION LIMIT

(1) Total facility-wide emissions of volatile organic compounds (VOCs) shall be limited to 45 tons per year (tpy). By accepting these limitations on yearly VOC emissions, the facility avoids the requirements of Title V permitting and New Source Review.

(2) Tracking and recording of monthly VOC emissions shall

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be performed and a rolling 12 month total shall be calculated each month. The facility shall record emissions data on a spread sheet/ log . For the purpose of emission determination, all VOC in raw material used in production minus VOC in documented waste disposal shall be assumed to be emitted to the atmosphere. Isopropyl alcohol used in mold making is the major VOC component at this time.

(3) The owner or operator must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to this facility, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations or law.

(4) On an annual basis, the responsible official shall provide a certification to the department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to those threshold levels that would require the submission of an application for a Title V facility permit, or compliance with an applicable requirement.

Parameter Monitored: VOC

Upper Permit Limit: 45 tons per year

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Averaging Method: ANNUAL TOTAL ROLLED MONTHLY

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2015.

Subsequent reports are due every 12 calendar month(s).

Condition 3: Air pollution prohibited
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:6 NYCRR 211.1

Item 3.1:

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

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Condition 1-2: Compliance Demonstration
Effective between the dates of 07/11/2018 and 12/14/2024

Applicable Federal Requirement:6 NYCRR 212-1.6 (a)

Item 1-2.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 1-2.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: Method 9

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 1-3: Compliance Demonstration
Effective between the dates of 07/11/2018 and 12/14/2024

Applicable Federal Requirement:6 NYCRR 212-2.4 (b)

Item 1-3.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY075-00-5 PM-10

Item 1-3.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

The control of particulate emissions released from new and modified process emission sources. Emissions from any process emission source for which an application was received by the department after July 1, 1973 are restricted as follows:

No facility owner or operator shall cause or allow

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emissions of particulate that exceed 0.050 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis, except in instances where determination of permissible emission rate using process weight for a specific source category emitting solid particulate is based upon Table 5 and Table 6 of Subdivisions 212-2.5(a) and (b) of this Part.

As per 212-1.7(a) 'Sampling and monitoring' section, facility owners and/or operators of a process emission source required by the department to demonstrate compliance with this Part may be required to conduct capture efficiency and/or stack emissions testing using acceptable and approved procedures pursuant to Part 202 of this Title.

Parameter Monitored: PM-10

Upper Permit Limit: 0.050 grains per dscf

Averaging Method: AVERAGING METHOD - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**Condition 6: Cover or enclose melting furnace
Effective between the dates of 12/15/2014 and 12/14/2024**

Applicable Federal Requirement:40CFR 63.11550(a)(1), Subpart

ZZZZZZ

Item 6.1:

The owner or operator of an aluminum foundry, copper foundry, or other nonferrous foundry that is subject to Subpart ZZZZZZ must cover or enclose each melting furnace that is equipped with a cover or enclosure during the melting operation to the extent practicable (e.g., except when access is needed; including, but not limited to charging, alloy addition, and tapping).

**Condition 7: Metal scrap HAP content
Effective between the dates of 12/15/2014 and 12/14/2024**

Applicable Federal Requirement:40CFR 63.11550(a)(2), Subpart

ZZZZZZ

Item 7.1:

The owner or operator of an aluminum foundry, copper foundry, or other nonferrous foundry that is subject to Subpart ZZZZZZ must purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundry HAP (as applicable) in the materials charged to the melting furnace, except metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting. This requirement does not apply to material that is not scrap (e.g., ingots, alloys, sows) or to materials that are not purchased (e.g., internal scrap, customer returns).



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Condition 8: Management practices
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:40CFR 63.11550(a)(3), Subpart
ZZZZZZ

Item 8.1:

The owner or operator of an aluminum foundry, copper foundry, or other nonferrous foundry that is subject to Subpart ZZZZZZ must prepare and operate pursuant to a written management practices plan. The management practices plan must include the required management practices in 40 CFR 63.11550(a)(1) and (2) and may include any other management practices that are implemented at the facility to minimize emissions from melting furnaces. The owner or operator must inform his/her appropriate employees of the management practices that they must follow. The owner or operator may use standard operating procedures as the management practices plan provided the standard operating procedures include the required management practices in 40 CFR 63.11550(a)(1) and (2).

Condition 9: Compliance Demonstration
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:40CFR 63.11553(a), Subpart ZZZZZZ

Item 9.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 9.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

INITIAL NOTIFICATION

TPI Arcade, Inc. submitted the Initial Notification on November 9, 2009.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 10: Compliance Demonstration
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:40CFR 63.11553(b), Subpart ZZZZZZ

Item 10.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 10.2:

Compliance Demonstration shall include the following monitoring:



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Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

NOTIFICATION OF COMPLIANCE STATUS

TPI Arcade, Inc. submitted the
Notification of Compliance Status on June
16, 2011.

Monitoring Frequency: SINGLE OCCURRENCE

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

Condition 11: Compliance Demonstration
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:40CFR 63.11553(c)(1), Subpart

ZZZZZZ

Item 11.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 11.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

As required in 40 CFR 63.10(b)(2)(xiv), the owner or operator must keep a copy of each notification that he/she submitted to comply with Subpart ZZZZZZ and all documentation supporting any Initial Notification or Notification of Compliance Status that he/she submitted.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 12: Compliance Demonstration
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:40CFR 63.11553(c)(2), Subpart

ZZZZZZ

Item 12.1:
The Compliance Demonstration activity will be performed for the Facility.

Item 12.2:
Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator must keep records to document conformance with the management practices plan required by

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40 CFR 63.11550 as specified in paragraphs (i) and (ii).

(i) For melting furnaces equipped with a cover or enclosure, records must identify each melting furnace equipped with a cover or enclosure and document that the procedures in the management practices plan were followed during the monthly inspections. These records may be in the form of a checklist.

(ii) Records documenting that the owner or operator purchased only metal scrap that has been depleted of HAP metals (to the extent practicable) charged to the melting furnace. If the owner or operator purchases scrap metal specifically for the HAP metal content for use in alloying or to meet specifications for the casting, he/she must keep records to document that the HAP metal is included in the material specifications for the cast metal product.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 13: Format of records

Effective between the dates of 12/15/2014 and 12/14/2024

Applicable Federal Requirement:40CFR 63.11553(d), Subpart ZZZZZZ

Item 13.1:

The owner or operator of an aluminum foundry, copper foundry, or other nonferrous foundry subject to Subpart ZZZZZZ must maintain records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). As specified in 40 CFR 63.10(b)(1), the owner or operator must keep each record for 5 years following the date of each recorded action. For records of annual metal melt production, the owner or operator must keep the records for 5 years from the end of the calendar year. The owner or operator must keep each record onsite for at least 2 years after the date of each recorded action according to 40 CFR 63.10(b)(1). The owner or operator may keep the records offsite for the remaining 3 years.

**** Emission Unit Level ****

Condition 1-4: Compliance Demonstration

Effective between the dates of 07/11/2018 and 12/14/2024

Applicable Federal Requirement:6 NYCRR 212-1.5 (e) (1)

Item 1-4.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-1CAST

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Process: CBO

Regulated Contaminant(s):

CAS No: 0NY075-00-0 PARTICULATES

Item 1-4.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

PART 212 PARTICULATE EMISSIONS
BACTH PROCESS OVEN

(1) Particulate emissions from the batch process oven are subject to 40 CFR 60 Subpart UUU. In accordance with 6NYCRR Part 212-1.5(e)(1), a process emission source subject to a Federal NSPS under 40 CFR 60 satisfies the requirements of Part 212 for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the facility is in compliance with the relative Federal regulation.

(2) The particulate emission limit of 40 CFR 60 Subpart UUU is 0.04 grains/dscf. The particulate emission limit of 6 NYCRR Part 212-2.4(b)(1) is 0.050 grains/dscf, which is less restrictive than the NSPS-UUU.

(3) The facility is required to complete a performance test to demonstrate compliance with the particulate emission limit of 0.040 grains/dscf and, in turn, will demonstrate compliance with the 0.05 grains/dscf limit of Part 212.

(4) No records or reporting are required for this permit condition.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 1-5: Compliance Demonstration

Effective between the dates of 07/11/2018 and 12/14/2024

Applicable Federal Requirement:40CFR 60, NSPS Subpart UUU

Item 1-5.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-1CAST

Process: CBO



Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 1-5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

NSPS- SUBPART UUU REQUIREMENTS
JACKSON BATCH PROCESS BAKE-OFF OVEN

(1) The facility batch oven process, CBO, is subject to 40 CFR Part 60, Subpart UUU – Standards of Performance for Calciners and Dryers in Mineral Industries. Although this standard does not specifically state that it applies to the foundry industry, earlier applicability determinations made by the EPA, have determined furnaces used in sand reclamation at foundries meet the Subpart UUU definition of calciners and dryers that process industrial sand. EPA Applicability Determination Index Control Number: 0000056, dated 01/05/2000, Titled “NSPS Applicability to Sand Reclamation Facilities”, states that calciners used in sand reclamation facilities are subject to the NSPS-Subpart UUU.

(2) A 'Calciner' means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. The Jackson Batch Process Bake-off Oven (JKSN1) meets this definition since it is used to facilitate the removal of the cores from the aluminum castings. The cores are mainly comprised of industrial sand from which the binder, co-reactant and wash are removed in the oven by baking at 1000 degrees Fahrenheit for 4-hour cycles.

(3) STANDARDS FOR PARTICULATE MATTER [§60.732]. 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 0.040 grain per dry standard cubic foot (gr/dscf) for calciners.

(b) Exhibits greater than 10 percent opacity.

(4) TEST METHODS AND PROCEDURES [§60.736(b)]. The owner

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or operator shall determine compliance with the particulate matter standards in §60.732 as follows:

(a) 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.

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

(5) PERFORMANCE TESTS [§60.8(a)]. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the owner or operator shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(6) PERFORMANCE TESTS [§60.8(d)]. The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, to afford the Administrator the opportunity to have an observer present.

(7) PERFORMANCE TESTS [§60.8(f)]. Each performance test shall consist of three separate runs using the applicable test method. Contents of the performance test report (electronic or paper submitted copy) shall include the elements identified in paragraphs §60.8(f)(2)(i) through (vi) and be submitted to the USEPA Region 2 and the NYSDEC Region 9 office.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.040 grains per dscf

Reference Test Method: EPA Reference Method 5

Monitoring Frequency: SINGLE OCCURRENCE

Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST METHOD INDICATED

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 1-6: Compliance Demonstration
Effective between the dates of 07/11/2018 and 12/14/2024

Applicable Federal Requirement: 6 NYCRR 212-2.1 (b)

Item 1-6.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-1CAST

Process: MOU

Regulated Contaminant(s):

CAS No: 014808-60-7 QUARTZ



Item 1-6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

PART 212 COMPLIANCE
BAGHOUSE FOR SAND MOLD SHAKE-OUT AND RECOVERY

(1) Emissions of silica quartz particulates from process MOU shall be limited to 0.06 pounds per hour. This limit has been modeled to ensure the Annual Guidance Concentration of 2.0 micrograms per cubic meter is not exceeded. The model was based on the current stack configuration and exhaust gas flow rate of 36 inch diameter, 27 foot stack height and 41,309 acfm.

(2) Compliance with this limit has been demonstrated through the initial compliance test. However, the department reserves the right to request repetition of this testing if it determines that there is a risk of the emission limit being exceeded or if semi-annual internal inspection shows a recurring high incidence of leaking bags.

(3) The facility shall perform an internal inspection and a leak detection test using a fluorescent tracer on the silica dust bagouse on a six month interval. All leaking bags shall be promptly replaced.

(4) The results of the fluorescent tracer tests shall be recorded in a log along with a summary of the maintenance work/bag replacement done. The log shall be made available to the department upon request during normal business hours. Results of the inspection and associated required bag replacement and maintenance shall be reported to the department along with the annual VOC capping certification report required by this permit under Part 201-7.2.

(5) If a stack test is requested by the department or otherwise required by this permit, a stack test protocol shall be submitted for approval no later than 30 days after written notification by the department. The stack test shall be completed within 45 days of department approval of the protocol. This source shall be tested under maximum production rate.

(6) A stack test report shall be submitted no later than 30 days after the test is completed for department review

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and approval. In the event the test report is not acceptable, corrective action shall be taken and a revised stack test report shall be resubmitted for review and approval, as necessary.

Parameter Monitored: PARTICULATES

Upper Permit Limit: 0.06 pounds per hour

Reference Test Method: EPA Method 5

Monitoring Frequency: SEMI-ANNUALLY

Averaging Method: 1 HOUR MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME

Reporting Requirements: ANNUALLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 1/30/2019.

Subsequent reports are due every 12 calendar month(s).



STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

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

(1) An emergency occurred and that the facility owner or operator can identify the cause(s) of the emergency;

(2) The equipment at the permitted facility causing the emergency was at the time being properly operated and maintained;

(3) During the period of the emergency the facility owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The facility owner or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)

Where facility owners and/or operators keep records pursuant to compliance with the requirements of 6 NYCRR Subpart 201-5.4, and/or the emission capping requirements of 6 NYCRR Subpart 201-7, the Department will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records.



Facility owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department.

Item C: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS

The following conditions are state only enforceable.

Condition 15: Contaminant List
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable State Requirement:ECL 19-0301

Item 15.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 014808-60-7

Name: QUARTZ

CAS No: 0NY075-00-0

Name: PARTICULATES

CAS No: 0NY075-00-5

Name: PM-10

CAS No: 0NY998-00-0

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Name: VOC

Condition 16: Malfunctions and start-up/shutdown activities
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable State Requirement:6 NYCRR 201-1.4

Replaces Condition(s) 2-8

Item 16.1:

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 17: Emission Unit Definition
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 17.1(From Mod 1):

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The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 0-1CAST

Emission Unit Description:

Emission Unit 0-1CAST includes a sand molding and filming operation using automatic stations to prepare the sand mold from pattern boards, pouring of molten aluminum into molds, shakeout of molds, recovery of fugitive sand from molds, and baking of castings to facilitate the removal of cores. Also includes spraying of isopropanol based mold wash on pattern board film with VOCs being emitted to emission point BH001.

Building(s): FOUNDRY

Item 17.2(From Mod 0):

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 0-1FURN

Emission Unit Description:

Emission Unit 0-1FURN includes the melting of aluminum and fluxing in (2) electric induction and (2) natural gas fired melting furnaces.

Building(s): FOUNDRY

**Condition 18: Renewal deadlines for state facility permits
Effective between the dates of 12/15/2014 and 12/14/2024**

Applicable State Requirement:6 NYCRR 201-5.2 (c)

Item 18.1:

The owner or operator of a facility having an issued state facility permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

**Condition 19: Compliance Demonstration
Effective between the dates of 12/15/2014 and 12/14/2024**

Applicable State Requirement:6 NYCRR 201-5.3 (c)

Item 19.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 19.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Any reports or submissions required by this permit shall be submitted to the Regional Air Pollution Control Engineer (RAPCE) at the following address:

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Division of Air Resources
NYS Dept. of Environmental Conservation
Region 9
270 Michigan Ave.
Buffalo, NY 14203

Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2015.
Subsequent reports are due every 12 calendar month(s).

Condition 20: Visible Emissions Limited
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable State Requirement:6 NYCRR 211.2

Replaces Condition(s) 35

Item 20.1:

Except as permitted by a specific part of this Subchapter and for open fires for which a restricted burning permit has been issued, no person shall cause or allow any air contamination source to emit any material having an opacity equal to or greater than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

****** Emission Unit Level ******

Condition 21: Emission Point Definition By Emission Unit
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 21.1(From Mod 1):

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 0-1CAST

Emission Point: CB001

| | | |
|---------------------|--------------------|-------------------|
| Height (ft.): 42 | Diameter (in.): 12 | |
| NYTMN (km.): 4712.8 | NYTME (km.): 219.7 | Building: FOUNDRY |

Emission Point: BH001

| | | |
|---------------------|--------------------|-------------------|
| Height (ft.): 27 | Diameter (in.): 36 | |
| NYTMN (km.): 4713.4 | NYTME (km.): 219.7 | Building: FOUNDRY |

Condition 22: Process Definition By Emission Unit
Effective between the dates of 12/15/2014 and 12/14/2024

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 22.1(From Mod 1):

This permit authorizes the following regulated processes for the cited Emission Unit:



Emission Unit: 0-1CAST
Process: CBO Source Classification Code: 3-04-007-17
Process Description:

Process CBO includes a Jackson Oven Model 8814 Batch Process Oven with Side Mount Heater. The oven is used to facilitate the removal of cores from aluminum castings so that the castings will not be damaged. The oven includes a 0.003-MMBtu/hr natural gas-fired burner to bake the castings and cores at 1000 F for four hours in an oxygen-starved atmosphere. During the molding process, a core is required to make internal voids in the casting. The cores range in weight from 0.25- to 232-lbs. The average core weight is 18-lbs. The cores consist of sand, binder and co-reactant that are sealed with a wash.

Particulate emissions from the bake-out oven are subject to the applicable requirements of 40 CFR 60 Subpart UUU Standards of Performance for Calciners and Dryers in Mineral Industries, as well as 6NYCRR Part 212. Subpart UUU limits particulate matter (PM) emissions to 0.040 grains per dry standard cubic foot of exhaust gas, and 10% opacity. Compliance with the 40 CFR 60 Subpart UUU grain standard is demonstrated by stack testing within 180-days of oven startup. Compliance with the opacity standard is also verified within 180-days of start-up.

For PM, compliance with Subpart UUU satisfies the requirements of Part 212, as per 212-1.5(e)(1). Potential air toxics emissions from the sand, binders, co-reactant and wash are evaluated in accordance with the DAR-1 policy to demonstrate compliance with Part 212 by screening dispersion modeling.

Emission Source/Control: JKSN1 - Process

Item 22.2(From Mod 1):

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-1CAST
Process: MOU Source Classification Code: 3-04-001-99
Process Description:

Process MOU includes a sand pouring/filming operation using automatic station to prepare sand mold from pattern boards. Includes pouring of molds, shakeout of molds and recovery of fugitive sand from molds.

Emission Source/Control: 00SBH - Control
Control Type: FABRIC FILTER

Emission Source/Control: 01SBH - Process

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Emission Source/Control: PHOOD - Process

Item 22.3(From Mod 0):

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-1CAST

Process: POU

Process Description:

Process POU includes pouring/casting of molten aluminum into molds.

Emission Source/Control: 00SBH - Control

Control Type: FABRIC FILTER

Emission Source/Control: 01SBH - Process

Emission Source/Control: PHOOD - Process

Design Capacity: 12,750 cubic feet per minute

Item 22.4(From Mod 0):

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-1CAST

Process: WSH

Source Classification Code: 3-04-001-99

Process Description:

Process WSH includes spraying of isopropanol-based mold wash on pattern boards with solvent vapors emitted via Emission Point BH001.

Emission Source/Control: 00SBH - Control

Control Type: FABRIC FILTER

Emission Source/Control: 01SBH - Process

Emission Source/Control: PHOOD - Process

Design Capacity: 12,750 cubic feet per minute

Item 22.5(From Mod 0):

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-1FURN

Process: ELE

Process Description:

Process ELE includes aluminum melting and fluxing in (2) electric induction melting furnaces. Fluxing on a shift basis (2x/day) and once weekly to clean furnace. Furnaces are Inductotherm electric induction models.

Emission Source/Control: EFUR1 - Process

Design Capacity: 1,500 pounds per hour



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Emission Source/Control: EFUR4 - Process
Design Capacity: 1,500 pounds per hour

Item 22.6(From Mod 0):

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 0-1FURN
Process: GAS
Process Description:
Process GAS includes the aluminum melting and fluxing in (2) natural gas fired melting furnaces. Fluxing on a shift basis (2x/day) and once weekly to clean furnace. Furnaces are Stahl Model 4500 DDR.

Emission Source/Control: GFUR2 - Process
Design Capacity: 1,500 pounds per hour

Emission Source/Control: GFUR3 - Process
Design Capacity: 1,500 pounds per hour

Condition 1-7: Compliance Demonstration
Effective between the dates of 07/11/2018 and 12/14/2024

Applicable State Requirement:6 NYCRR 212-2.1

Item 1-7.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 0-1CAST
Process: CBO

Item 1-7.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:

PART 212 AIR TOXIC EVALUATION
BATCH PROCESS OVEN

(1) The batch process oven is used to facilitate removal of the cores from the castings. The cores contain sand with a binder and co-reactant that are sealed with a wash inside the casting. The cores range in weight from 0.25 to 232 pounds, with an average weight of 18 pounds. A charge rate of the oven was determined based on a maximum of 20 cores per batch, times the average core weight of 18 pounds, divided by a 4-hour batch time equating to 90 pounds per hour. An emission factor from the New Hampshire Department of Environmental Services (NHDES) Air Resources Division was selected as the best match for the process for calculating PTE. The NHDES document references a

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Michigan DEQ factor of 0.9-lb PM10/ton of core which results in a PM10 emission rate from the oven of 0.041 lb/hr.

(2) A 6NYCRR Part 212 analysis of the emissions from the sand, binder, co-reactant and wash was completed in accordance with the DAR-1 program policy. The emissions included air contaminants listed in Section 212-2.2 Table 2 – High Toxicity Air Contaminant (HTAC) List and air contaminants not listed on Table-2, or Non-HTAC.

(3) The potential emissions from each HTAC are less than the annual mass emission limit of Table 2 and do not require any further evaluation as indicated in 6NYCRR Part 212-2.1(a). The Non-HTAC's were evaluated using Subdivision 212-2.3(b), Table 4 – Degree of Air Cleaning Required for Non-Criteria Air Contaminants. Only one non-HTAC is emitted at a rate of greater than 100 pounds per year, namely crystalline silica (CAS# 14464-46-1), a component of industrial sand. Crystalline silica is a suspected carcinogen and, is therefore given an A-rating. The emission rate potential of silica is 0.038 lb/hr. In accordance with Subdivision 212-2.3(b), Table 4, air dispersion modeling is used to compare the maximum offsite impacts to the Annual Guideline Concentration. The results of the Aerscreen analysis indicated potential off-site ambient impacts are below the guideline concentrations for crystalline silica.

(4) Following completion of the required performance test under 40 CFR 60 Subpart UUU, the actual measured particulate emission rate shall be compared to the emission rate potential of 0.038 lb/hr used in the Part 212 evaluation for crystalline silica. If the actual emission rate is less than 0.038 lb/hr then no further action is required. If the actual emission rate is greater than 0.038 lb/hr, then the Aerscreen analysis shall be revised and analyzed using the actual measured emission rate. The revised evaluation shall be submitted to the NYSDEC Region 9 office within 60 days of completion of the performance test.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

