



**New York State Department of Environmental Conservation
Permit Review Report**

Permit ID: 6-4058-00024/00077

**Renewal Number: 1
08/28/2012**

Facility Identification Data

Name: REYNOLDS METALS ST LAWRENCE REDUCTION PLANT
Address: 194 CO RTE 45
MASSENA, NY 13662

Owner/Firm

Name: REYNOLDS METALS CO
Address: 201 ISABELLA ST
PITTSBURGH, PA 15212-5858, USA
Owner Classification: Corporation/Partnership

Permit Contacts

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Air Permitting Facility Owner Contact:
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Permit Description

Introduction

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

Summary Description of Proposed Project

Application for renewal of Air Title V Facility permit and construction and operation of new prebake potline that will replace the three existing soderberg potlines.



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Attainment Status

REYNOLDS METALS ST LAWRENCE REDUCTION PLANT is located in the town of MASSENA in the county of ST LAWRENCE.

The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

| Criteria Pollutant | Attainment Status |
|---|-----------------------------------|
| Particulate Matter (PM) | ATTAINMENT |
| Particulate Matter < 10µ in diameter (PM10) | ATTAINMENT |
| Sulfur Dioxide (SO2) | ATTAINMENT |
| Ozone* | TRANSPORT REGION (NON-ATTAINMENT) |
| Oxides of Nitrogen (NOx)** | ATTAINMENT |
| Carbon Monoxide (CO) | ATTAINMENT |

* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

** NOx has a separate ambient air quality standard in addition to being an ozone precursor.

Facility Description:

Reynolds Metals Company (a wholly owned subsidiary of Alcoa, Inc.) owns and operates a primary aluminum reduction facility in Massena NY. Operations include electrolytic aluminum reduction and anode preparation.

Permit Structure and Description of Operations

The Title V permit for REYNOLDS METALS ST LAWRENCE REDUCTION PLANT is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process. A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device. [NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:
 combustion - devices which burn fuel to generate heat, steam or power
 incinerator - devices which burn waste material for disposal
 control - emission control devices



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process - any device or contrivance which may emit air contaminants that is not included in the above categories.

REYNOLDS METALS ST LAWRENCE REDUCTION PLANT is defined by the following emission unit(s):

Emission unit 0CRUCE - This emission unit consists of the cruce augering and lid cleaning and controls.

Emission unit 0CRUCE is associated with the following emission points (EP):
20B00, 85003

Process: A03 This process consists of cruce augering and cleaning and cruce lid cleaning.

Emission unit ANOD01 - This emissions unit consists of emissions sources located adjacent to the Anode Pin Room (on occasion this may also occur in other areas of the facility). There is one process identified within this emissions unit, process G01. This emissions unit results in fugitive emissions and is not associated with a ventilation system.

Process: G01 is located at Building 35 - This process is for the channel cooling area. As the channels are removed from the pots, they are placed on a portable rack and allowed to cool prior to reforming in the channel press. Currently, this process is adjacent to the Anode Pin Room, but on occasion it may be done in other areas of the facility.

Emission unit BOIL01 - This emissions unit consists of emissions sources and emission points located in the Boiler Room, Facility 22H. There are two processes identified within this emissions unit, processes I01, and I03. These processes are identified in detail in the process description section of the application package.

Emission unit BOIL01 is associated with the following emission points (EP):
00C1B, 00C3B

Process: I01 is located at Building 22H - This process is for the combustion of natural gas to produce steam for heating and cooling purposes throughout the plant. Each of the plant's three boilers has the capability to fire natural gas.

Emission unit DROS01 - This emission unit consists of emissions sources associated with dross cooling processes and storage, facility 20 and 20C. This emission unit includes miscellaneous fugitive emissions from the processes.

Process: Z01 is located at Building 20 - This process is for the dross storage room. Dross, a mixture of various metal oxides, is generated from furnace skimmings. Dross is stored in a room prior to shipment to an outside vendor for reclamation.

Emission unit DROS02 - This emission unit consists of emission sources associated with dross cooling in process Z01.

Process: Z02 is located at Building 20 - This process is for the dross cooling areas. After dross is removed from the furnace, it is allowed to cool prior to being placed into the dross storage room.

Emission unit PAINO1 - This emission unit consists of emission sources associated with the paint shop, Facility 31. There is one process associated with this emission unit, process Q01. This emission unit



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consists of fugitive emissions generated from the process.

Process: Q01 This process is for the facility paint shop. The paint shop is used primarily for maintenance painting, including vehicle touch-up and repair, furnace refinishing, storage tank refinishing, etc. Paint is applied manually and with spray guns.

Emission unit PARTW1 - This emission unit consists of parts washers located throughout the Alcoa East facility.

Process: PW1 This process consists of batch cold cleaning degreasers in use plant wide.

Emission unit PDIG01 - This emission unit consists of emission sources, control devices, and emission points associated with the Cathode Digging Area, Facility 85.

Emission unit PDIG01 is associated with the following emission points (EP):
85002

Process: E02 is located at Building 85 - This process represents the cathode digging process. The cathode digging process involves several digging and skimming operations to remove the spent potliner from the cathode shell. Spent potliner is then placed in proper containers for shipment.

Emission unit POT001 - This emission unit consists of three existing Soderberg style potlines with cathode baking and pot cut-out support processes.

Emission unit POT001 is associated with the following emission points (EP):
77A01, 77A02, 88001, PRV02, PRV51, PRV52, PRV53, PRV54, PRV55, PRV56

Process: A02 This process is for the pots venting to the fume control system.

Process: A05 This process consists of cathode baking.

Process: A06 This process consists of pot cut-out.

Process: ANO This process consists of anode cooling in support of the pre-bake potline. Fugitive hydrogen fluoride emissions from transport of anodes from the potline and hydrogen fluoride emissions from passive anode cooling.

Process: B01 is located at Building 803 - This process consists of the pre-bake potline routed to the fume control system.

Emission unit ULDG01 - This emission unit consists of emission sources, control devices and emission points associated with the Unloading Shed, facility 25. There are 2 processes associated with this emission unit, processes P01 and P03.

There are four silos located in the courtyard, which are inactive; however, they provide structural support to the ore gallery and will not be removed. These are not air contamination sources, as they are not used and contain no product. Therefore these four silos, 25A, 25B, 25C, and 25D, are not identified as emission sources within this package.

Emission unit ULDG01 is associated with the following emission points (EP):
25A01, 26A01, 27A01, 28A01, 29A01, 30A01, 31A01, 32A01, 33A01

Process: P01 This process includes unloading and transfer operations for alumina ore, petroleum coke, and aluminum fluoride. The alumina hopper, elevator, and transfer point in the ore gallery are vented to a



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baghouse as is the coke operation.

points to their storage silos. Baghouses are employed to control particulate emissions from this process.

Emission unit WWTR01 - This emission unit consists of emission sources and emission points associated with the wastewater treatment operations, facility 63, 63A- 63J, 65, 65A, 65B, and 66. There is one process associated with this emission unit, process WW1. This emission unit includes miscellaneous fugitive emission sources.

Process: WW1 This process consists of water and wastewater treatment operations at the facility, including, but not limited to, ponds, lagoons, settling tanks, wastewater treatment operations, etc. This unit primarily contains fugitive emissions.

Emission unit CARB01 - This emissions unit consists of petroleum coke and/or paste briquette handling and storage. There is one process identified within this emissions unit, process N04. This emissions unit also includes miscellaneous fugitive emissions generated from this process.

Emission unit CARB01 is associated with the following emission points (EP):

22D01, 22E01

Process: N04 is located at Building 22K - This process is the storage of petroleum coke and/or paste briquettes in two 2,000 ton petroleum coke storage silos.

Emission unit EWCST1 - This emission unit consists of two emission sources and two processes in what was formerly the East and West casthouses. There are two processes identified with the emission unit; process HMO - a natural gas homogenizing furnace; and process CR1 - adding reactive flux to molten metal cruces. The gas homogenizing furnace and the addition of reactive flux to molten metal cruces are not subject to the Secondary Aluminum Processing NESHAP (40 CFR Part 63, Subpart RRR).

Emission unit EWCST1 is associated with the following emission points (EP):

20013

Process: CR1 This process consists of fugitive emissions from the practice of adding reactive flux to molten metal cruces.

Process: HMO This process includes the gas homogenizer furnace. The gas homogenizer is not subject to the secondary aluminum production NESHAP.

Title V/Major Source Status

REYNOLDS METALS ST LAWRENCE REDUCTION PLANT is subject to Title V requirements. This determination is based on the following information:

This facility has air emissions above major source thresholds for Particulates, PM-10, Sulfur Dioxide, Oxides of Nitrogen (NO_x), Carbon Monoxide, Volatile Organic Compounds (VOCs), and collective Hazardous Air Pollutants HAPs). Specific HAP emissions above 10 tons per year include Benzene, Carbonyl Sulfide, Hydrogen Chloride, Hydrogen Fluoride, Total Fluorides and Polycyclic Organic Matter.

Program Applicability

The following chart summarizes the applicability of REYNOLDS METALS ST LAWRENCE



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REDUCTION PLANT with regards to the principal air pollution regulatory programs:

| Regulatory Program | Applicability |
|--------------------------------|---------------|
| PSD | YES |
| NSR (non-attainment) | YES |
| NESHAP (40 CFR Part 61) | YES |
| NESHAP (MACT - 40 CFR Part 63) | YES |
| NSPS | YES |
| TITLE IV | NO |
| TITLE V | YES |
| TITLE VI | NO |
| RACT | YES |
| SIP | YES |

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NSR New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

NESHAP National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's).

MACT Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

NSPS New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the



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implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's (hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

Compliance Status

Facility is in compliance with all requirements.

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis

of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code

Description

3334

PRIMARY ALUMINUM

SCC Codes

SCC or Source Classification Code is a code developed and used" by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information.Each SCC represents

a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code

Description

1-02-006-02

EXTERNAL COMBUSTION BOILERS - INDUSTRIAL
INDUSTRIAL BOILER - NATURAL GAS
10-100 MMBtu/Hr

3-03-001-01

PRIMARY METAL PRODUCTION
PRIMARY METAL PRODUCTION - ALUMINUM ORE
(ELECTRO-REDUCTION)

3-03-001-02

Prebaked Reduction Cell
PRIMARY METAL PRODUCTION

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| | |
|-------------|--|
| 3-03-001-04 | PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION) Horizontal Stud Soderberg Cell |
| 3-03-001-99 | PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION) Materials Handling |
| 3-03-003-12 | PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION) NOT CLASSIFIED ** |
| 3-03-003-99 | PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION (BY-PRODUCT COKE MANUFACTURING) Coke: Crushing/Screening/Handling |
| 3-04-001-07 | SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Hot Dross Processing |
| 3-04-001-12 | SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Annealing Furnace |
| 4-01-003-36 | ORGANIC SOLVENT EVAPORATION COLD SOLVENT CLEANING/STRIPPING Entire Unit |
| 4-02-001-01 | SURFACE COATING OPERATIONS SURFACE COATING APPLICATION - GENERAL Paint: Solvent-Base |
| 5-03-007-02 | SOLID WASTE DISPOSAL - INDUSTRIAL SOLID WASTE DISPOSAL: INDUSTRIAL - LIQUID WASTE SOLID WASTE DISPOSAL-INDUSTRIAL-LIQUID WASTE TREATMENT-GENERAL |

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Service code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

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| Cas No. | Contaminant Name | PTE | |
|--|---|---|-------|
| | | lbs/yr | Range |
| 000108-10-1 ONY505-00-0 | 2-PENTANONE, 4-METHYL 40 CFR 63 SUBPART LL - POM | > 0 but < 10 tpy >= 10 tpy | |
| 000075-07-0 000071-43-2 000098-82-8 | ACETALDEHYDE BENZENE BENZENE, (1- METHYLETHYL) | > 0 but < 10 tpy >= 10 tpy > 0 but < 10 tpy | |
| 007440-41-7 007440-43-9 000630-08-0 | BERYLLIUM CADMIUM CARBON MONOXIDE | > 0 but < 10 tpy > 0 but < 10 tpy >= 250 tpy but < 75,000 tpy | |
| 000463-58-1 007782-50-5 007440-47-3 000057-12-5 000100-41-4 068188-85-2 000050-00-0 ONY100-00-0 | CARBONYL SULFIDE CHLORINE CHROMIUM CYANIDE ETHYLBENZENE FLUORIDES FORMALDEHYDE HAP | > 0 but < 10 tpy > 0 but < 10 tpy >= 10 tpy > 0 but < 10 tpy >= 250 tpy but < 75,000 tpy | |
| 007647-01-0 007664-39-3 007439-92-1 007439-96-5 000078-93-3 007440-02-0 | HYDROGEN CHLORIDE HYDROGEN FLUORIDE LEAD MANGANESE METHYL ETHYL KETONE NICKEL METAL AND INSOLUBLE COMPOUNDS | > 0 but < 10 tpy >= 10 tpy > 0 but < 10 tpy | |
| ONY210-00-0 ONY075-00-0 | OXIDES OF NITROGEN PARTICULATES | = 100 tpy but < 250 tpy >= 250 tpy but < 75,000 tpy | |
| 000108-95-2 ONY075-02-5 ONY075-00-5 | PHENOL PM 2.5 PM-10 | > 0 but < 10 tpy >= 250 tpy but < 75,000 tpy >= 250 tpy but < 75,000 tpy | |
| 130498-29-2 007446-09-5 | POLYCYCLIC AROMATIC HYDROCARBONS SULFUR DIOXIDE | = 10 tpy >= 250 tpy but < 75,000 tpy | |
| 000108-88-3 ONY998-00-0 001330-20-7 | TOLUENE VOC XYLENE, M, O & P MIXT. | > 0 but < 10 tpy >= 100 tpy but < 250 tpy > 0 but < 10 tpy | |

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency constitutes an affirmative defense to an action brought 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 and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the

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time being properly operated;

(3) During the period of the emergency the facility owner and/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 and/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 and/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 Title V Facilities - 6 NYCRR 201-1.10(b)

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

Item C: Timely Application for the Renewal of Title V Permits -6 NYCRR Part 201-6.3(a)(4)

Owners and/or operators of facilities having an issued Title V 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.

Item D: Certification by a Responsible Official - 6 NYCRR Part 201-6.3(d)(12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. 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.

Item E: Requirement to Comply With All Conditions - 6 NYCRR Part 201-6.5(a)(2)

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)

This 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.

Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.5(a)(5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain



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compliance with the conditions of this permit.

Item H: Property Rights - 6 NYCRR 201-6.5(a)(6)

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

Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, 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 date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.
- ii. The Department or the Administrator 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.

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iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item L: 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 M: 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.

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: 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.

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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.

Regulatory Analysis

| Location Facility/EU/EP/Process/ES | Regulation | Condition | Short Description |
|---------------------------------------|--------------------------|------------|--|
| -- FACILITY | ECL 19-0301 | 116 | Powers and Duties of the Department with respect to air pollution control |
| FACILITY | 40CFR 52-A.21 | 35, 36 | Prevention of Significant Deterioration |
| P-DIG01/-/E02/E4685 | 40CFR 52-A.21 | 57, 58 | Prevention of Significant Deterioration |
| P-OT001/-/B01 | 40CFR 60-S.190(c) | 104 | Applicability and designation of affected facility. |
| FACILITY | 40CFR 63-A | 37 | Subpart A - General Provisions apply to all NESHAP affected sources |
| FACILITY | 40CFR 63-LL.841 | 38 | Subpart LL - Incorporation by Reference |
| P-OT001/-/B01 | 40CFR 63-LL.844(a)(1) | 105 | Emission limits for new or reconstructed sources - total fluorides. |
| P-OT001/-/A02 | 40CFR 63-LL.846 | 88, 89, 90 | Subpart LL - Emission Averaging |
| P-OT001 | 40CFR 63-LL.846(b)(2) | 59 | Emissions Averaging |
| P-OT001/-/A02 | 40CFR 63-LL.846(b)(2) | 91 | Emissions Averaging |
| FACILITY | 40CFR 63-LL.847(b) | 39 | Compliance Provisions - Test Plan |
| P-OT001/-/B01 | 40CFR 63-LL.847(c) | 106 | Compliance Provisions - Initial Performance Test |
| P-OT001/-/B01 | 40CFR 63-LL.847(c)(2)(i) | 107 | Performance test deadlines - new potlines |
| P-OT001/-/A02 | 40CFR 63-LL.847(d) | 92, 93 | Performance test requirements to show compliance with the applicable limits. |
| P-OT001/-/B01 | 40CFR 63-LL.847(d)(1) | 108 | Performance Test Requirements - TF Emissions from Potlines |
| P-OT001 | 40CFR 63-LL.847(d)(3) | 60 | Performance Test Requirements - Previous Control Device Tests |



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| P-OT001 | 40CFR 63-LL.847 (e) (1) | 61 | Compliance Provisions - Potline TF Equation |
| P-OT001 | 40CFR 63-LL.847 (e) (5) | 62 | Compliance Provisions - Calculation of Emission Rates |
| P-OT001 | 40CFR 63-LL.847 (e) (6) | 63 | Compliance Provisions - Calculation of Emission Rates |
| P-OT001/-/A02 | 40CFR 63-LL.847 (h) (1) | 94 | Compliance provisions - selection of monitoring parameters |
| P-OT001/-/A02/E5152 | 40CFR 63-LL.847 (h) (1) | 97 | Compliance provisions - selection of monitoring parameters |
| P-OT001/-/A02/E5354 | 40CFR 63-LL.847 (h) (1) | 98 | Compliance provisions - selection of monitoring parameters |
| P-OT001/-/A02/E5556 | 40CFR 63-LL.847 (h) (1) | 99 | Compliance provisions - selection of monitoring parameters |
| P-OT001/-/B01 | 40CFR 63-LL.847 (h) (1) | 109, 110, 111 | Compliance provisions - selection of monitoring parameters |
| P-OT001 | 40CFR 63-LL.847 (h) (3) | 64 | Compliance provisions - selection of monitoring parameters |
| P-OT001/-/A02 | 40CFR 63-LL.848 (a) | 95 | Emission Monitoring Requirements - TF emissions from potlines |
| P-OT001/-/B01 | 40CFR 63-LL.848 (a) | 112 | Emission Monitoring Requirements - TF emissions from potlines |
| P-OT001/-/A02 | 40CFR 63-LL.848 (b) | 96 | Emission Monitoring Requirements - POM emissions from Soderberg potlines |
| P-OT001 | 40CFR 63-LL.848 (e) (1) | 65 | Emission Monitoring Requirements - reduced sampling frequency |
| P-OT001 | 40CFR 63-LL.848 (e) (2) | 66 | Emission Monitoring Requirements - reduced sampling frequency |
| P-OT001 | 40CFR 63-LL.848 (f) | 67 | Monitoring parameters for emission control devices |
| P-OT001 | 40CFR 63-LL.848 (g) | 68 | Emission Monitoring Requirements - visible emissions |
| P-OT001 | 40CFR 63-LL.848 (h) | 69 | Emission Monitoring Requirements - corrective action |
| P-OT001 | 40CFR 63-LL.848 (i) | 70 | Emission Monitoring Requirements - exceedances |
| P-OT001 | 40CFR 63-LL.848 (j) | 71 | Emission Monitoring Requirements - weight of aluminum and green anodes |
| P-OT001 | 40CFR 63-LL.848 (k) | 72 | Emission Monitoring Requirements - |

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| P-OT001 | 40CFR 63-LL.848 (1) | 73 | accuracy and calibration |
| FACILITY | 40CFR 63-LL.849 (a) | 40 | Emission Monitoring Requirements - alternative operating parameters |
| P-OT001 | 40CFR 63-LL.849 (c) | 74 | Test Methods and Procedures - listing of reference methods |
| P-OT001 | 40CFR 63-LL.849 (d) | 75 | Test Methods and Procedures - definition of potline manifolds for Method 14 |
| FACILITY | 40CFR 63-LL.849 (e) | 41 | Test Methods and Procedures - alternative test methods for TF or POM emissions |
| P-OT001/-/B01 | 40CFR 63-LL.850 (a) (5) | 113 | Notification, Reporting, and Recordkeeping Requirements - notifications |
| P-OT001/-/B01 | 40CFR 63-LL.850 (a) (6) | 114 | Notification, Reporting, and Recordkeeping Requirements - notifications |
| P-OT001/-/B01 | 40CFR 63-LL.850 (b) | 115 | Notification, Reporting, and Recordkeeping Requirements - performance test reports |
| P-OT001 | 40CFR 63-LL.850 (c) (1) | 76 | Notification, Reporting, and Recordkeeping Requirements - startup, shutdown, and malfunction plan and reports |
| P-OT001 | 40CFR 63-LL.850 (c) (2) | 77 | Notification, Reporting, and Recordkeeping Requirements - startup, shutdown, and malfunction plan and reports |
| P-OT001 | 40CFR 63-LL.850 (d) | 78 | Notification, Reporting, and Recordkeeping Requirements - excess emissions report |
| P-OT001 | 40CFR 63-LL.850 (e) (1) | 79 | Notification, Reporting, and Recordkeeping Requirements - recordkeeping |
| P-OT001 | 40CFR 63-LL.850 (e) (2) | 80 | Notification, Reporting, and Recordkeeping |

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| P-OT001 | 40CFR 63-LL.850 (e) (3) | 81 | Requirements - recordkeeping |
| P-OT001 | 40CFR 63-LL.850 (e) (4) | 82 | Notification, Reporting, and Recordkeeping |
| FACILITY | 40CFR 63-ZZZZ | 42 | Requirements - recordkeeping |
| FACILITY | 40CFR 64 | 43 | Reciprocating Internal Combustion Engine (RICE) NESHAP COMPLIANCE ASSURANCE MONITORING |
| FACILITY | 40CFR 68 | 19 | Chemical accident prevention provisions |
| FACILITY | 40CFR 82-F | 20 | Protection of Stratospheric Ozone - recycling and emissions reduction |
| FACILITY | 40CFR 98 | 44 | Mandatory Greenhouse Gas Reporting |
| FACILITY | 6NYCRR 200.6 | 1 | Acceptable ambient air quality. |
| FACILITY | 6NYCRR 200.7 | 9 | Maintenance of equipment. |
| FACILITY | 6NYCRR 201-1.4 | 117 | Unavoidable noncompliance and violations |
| FACILITY | 6NYCRR 201-1.7 | 10 | Recycling and Salvage |
| FACILITY | 6NYCRR 201-1.8 | 11 | Prohibition of reintroduction of collected contaminants to the air |
| FACILITY | 6NYCRR 201-3.2 (a) | 12 | Exempt Activities - Proof of eligibility |
| FACILITY | 6NYCRR 201-3.3 (a) | 13 | Trivial Activities - proof of eligibility |
| FACILITY | 6NYCRR 201-6 | 21, 45, 46 | Title V Permits and the Associated Permit Conditions |
| FACILITY | 6NYCRR 201-6.5 (a) (4) | 14 | General conditions |
| FACILITY | 6NYCRR 201-6.5 (a) (7) | 2 | General conditions |
| FACILITY | 6NYCRR 201-6.5 (a) (8) | 15 | Fees |
| FACILITY | 6NYCRR 201-6.5 (c) | 3 | General conditions |
| FACILITY | 6NYCRR 201-6.5 (c) (2) | 4 | Permit conditions for Recordkeeping and Reporting of Compliance Monitoring |
| FACILITY | 6NYCRR 201-6.5 (c) (3) (ii) | 5 | Permit conditions for Recordkeeping and Reporting of Compliance Monitoring |
| FACILITY | 6NYCRR 201-6.5 (d) (5) | 16 | Permit conditions for Recordkeeping and Reporting of Compliance Monitoring |
| FACILITY | 6NYCRR 201-6.5 (e) | 22 | Compliance schedules |
| | | | Compliance Certification |

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| FACILITY | 6NYCRR 201-6.5 (f) | 23 | Operational flexibility |
| FACILITY | 6NYCRR 201-6.5 (f) (6) | 17 | Off Permit Changes |
| FACILITY | 6NYCRR 201-7 | 47 | Federally Enforceable Emissions Caps |
| B-OIL01/-/I01/0222H | 6NYCRR 201-7 | 53 | Federally Enforceable Emissions Caps |
| B-OIL01/-/I01/0322H | 6NYCRR 201-7 | 54 | Federally Enforceable Emissions Caps |
| P-DIG01/-/E02/E4685 | 6NYCRR 201-7 | 57, 58 | Federally Enforceable Emissions Caps |
| P-OT001/-/B01 | 6NYCRR 201-7 | 100 | Federally Enforceable Emissions Caps |
| FACILITY | 6NYCRR 202-1.1 | 18 | Required emissions tests. |
| FACILITY | 6NYCRR 202-2.1 | 6 | Emission Statements - Applicability |
| FACILITY | 6NYCRR 202-2.5 | 7 | Emission Statements - record keeping requirements. |
| P-OT001 | 6NYCRR 209 | 118 | Primary Aluminum Reduction Plants |
| FACILITY | 6NYCRR 211.1 | 24 | General Prohibitions - air pollution prohibited |
| FACILITY | 6NYCRR 212.4 (a) | 25, 26 | General Process Emission Sources - emissions from new sources and/or modifications |
| FACILITY | 6NYCRR 212.4 (c) | 27, 28 | General Process Emission Sources - emissions from new processes and/or modifications |
| P-OT001/-/A02 | 6NYCRR 212.5 (d) | 83, 84, 85, 86, 87 | Applicable emission standards |
| P-OT001/-/B01 | 6NYCRR 212.5 (d) | 101, 102, 103 | Applicable emission standards |
| FACILITY | 6NYCRR 212.6 (a) | 29 | General Process Emission Sources - opacity of emissions limited |
| FACILITY | 6NYCRR 215.2 | 8 | Open Fires - Prohibitions |
| FACILITY | 6NYCRR 226 | 30 | SOLVENT METAL CLEANING PROCESSES |
| FACILITY | 6NYCRR 227-1.3 (a) | 31 | Smoke Emission Limitations. |
| B-OIL01 | 6NYCRR 227-1.6 (a) | 48 | Corrective Action. |
| B-OIL01 | 6NYCRR 227-1.6 (b) | 49 | Corrective Action: Facility Shutdown. |
| B-OIL01 | 6NYCRR 227-1.6 (c) | 50 | Corrective Action: Facility Shutdown Prohibitions. |
| B-OIL01 | 6NYCRR 227-1.6 (d) | 51 | Corrective Action: Facility Shutdown Prohibitions. |
| B-OIL01 | 6NYCRR 227-1.7 | 52 | General Emission Data. |
| B-OIL01/-/I01/0222H | 6NYCRR 227-2 | 53 | Reasonably available control technology for NOx |
| B-OIL01/-/I01/0322H | 6NYCRR 227-2 | 54 | Reasonably available |



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| P-AINO1/-/Q01 FACILITY | 6NYCRR 228-1.1 (d) 6NYCRR 228-1.2 (b) (35) | 56 32 | control technology for NOx Will remain subject Formula for Maximum permitted VOC content Reasonable Possibility requirements for insignificant mods - less than 50% with excluded emissions Mods to Existing Major Facilities in Attainment Areas (PSD) |
| E-WCST1/-/CR1/CR101 | 6NYCRR 231-11.2 (b) | 55 | Air Quality Standards - Particulates |
| P-OT001/-/B01 FACILITY | 6NYCRR 231-8 | 100 | Air Quality Standards - Fluorides |
| FACILITY | 6NYCRR 257-3 | 33 | |
| FACILITY | 6NYCRR 257-8 | 34 | |

Applicability Discussion:

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-0301

This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6 NYCRR 200.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

6 NYCRR 200.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6 NYCRR 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6 NYCRR 201-3.2 (a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, 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.



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6 NYCRR 201-3.3 (a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to 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.

6 NYCRR Subpart 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6 NYCRR 201-6.5 (a) (4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

6 NYCRR 201-6.5 (a) (7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

6 NYCRR 201-6.5 (a) (8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

6 NYCRR 201-6.5 (c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6 NYCRR 201-6.5 (c) (2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.



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6 NYCRR 201-6.5 (c) (3) (ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6 NYCRR 201-6.5 (d) (5)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

6 NYCRR 201-6.5 (e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6 NYCRR 201-6.5 (f) (6)

This condition allows changes to be made at the facility, without modifying the permit, provided the changes do not cause an emission limit contained in this permit to be exceeded. The owner or operator of the facility must notify the Department of the change. It is applicable to all Title V permits which may be subject to an off permit change.

6 NYCRR 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6 NYCRR 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calENDar year.

6 NYCRR 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

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.

40 CFR Part 68

This Part lists the regulated substances and there applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act AmENDments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

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Facility Specific Requirements

In addition to Title V, REYNOLDS METALS ST LAWRENCE REDUCTION PLANT has been determined to be subject to the following regulations:

40 CFR 52.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions;

ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i) .

40 CFR 60.190 (c)

40 CFR 63.841

This condition lists the material used in the regulation that has been incorporated by reference.

40 CFR 63.844 (a) (1)

40 CFR 63.846

This regulation allows the facility to average the emissions from the potlines.

40 CFR 63.846 (b) (2)

The regulation allows the plant to average the Total Fluoride and Polycyclic Organic Matter emissions across the potlines with a lower emission limit than that which is allowed on a per potline basis.

40 CFR 63.847 (b)

40 CFR 63.847 (c)

This condition requires the preparation and submission of a site specific test plan. The test plan test plan sets forth how the facility will do the initial compliance test and all subsequent testing to show compliance with the limits in the regulation.

40 CFR 63.847 (c) (2) (i)

Facility must conduct the initial performance test within 180 days of startup of a new potline.

40 CFR 63.847 (d)



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40 CFR 63.847 (d) (1)

This condition establishes how a facility will measure and calculate Total Fluoride (TF) emissions from the potline(s).

40 CFR 63.847 (d) (3)

This condition says the facility must use the average of all performance test runs conducted on the primary control device for a potline or bake furnace if more than one test has been done within a 12 month period.

40 CFR 63.847 (e) (1)

This condition lists the equations to be used to determine the emission rate of Total Fluorides from each potline.

40 CFR 63.847 (e) (5)

This condition states the facility shall install scales to measure weight of the aluminum produced and the weight of the green (unbaked) anode material placed in the furnace. These scales must be calibrated and properly operated according to the manufacturer's specifications.

40 CFR 63.847 (e) (6)

This condition states the facility must determine the aluminum production rate in pounds per hour for the calendar month that includes the 3 runs of the performance test. This information will be used along with the three runs of the performance test to determine if they are in compliance with the emission limits for Total Fluorides (TF) and Polycyclic Organic Matter (POM)

40 CFR 63.847 (h) (1)

This condition says the facility shall determine monitoring parameters that will ensure proper operation of the control devices for the potlines and anode bake furnaces.

40 CFR 63.847 (h) (3)

This condition says the facility has the option of re-determining the operating limits on the control devices and to submit them to the Department for approval. The new limits become effective upon approval of the Department.

40 CFR 63.848 (a)

This condition describes the monitoring frequency the facility shall use to show compliance with the Total Fluoride emission limits from the potlines.

40 CFR 63.848 (b)

40 CFR 63.848 (e) (1)

This condition states a facility can reduce the frequency of testing for Total Fluorides (TF) from the roof



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vents above the potlines if they can show they are always well below the emission limits.

40 CFR 63.848 (e) (2)

This condition states a facility can request to have the Total Fluoride testing frequency reduced only if the request includes a test plan, to be approved by the DEC, for the alternate test schedule.

40 CFR 63.848 (f)

This condition requires the facility to submit a plan showing how the processes and controls will be monitored to ensure compliance with the emission limits and monitoring requirements.

40 CFR 63.848 (g)

This condition says the facility shall visually inspect the emissions from the stacks of the primary control devices daily for emissions that may indicate a problem.

40 CFR 63.848 (h)

This condition says that the facility must take corrective action according to the start up, shutdown, malfunction plan when a problem is found

40 CFR 63.848 (i)

This condition says that there is an allowance of six exceedances of monitoring parameters associated with a given control device per 6 month reporting period. Any exceedance beyond six is considered a violation.

40 CFR 63.848 (j)

This condition states scales must be installed to accurately measure aluminum produced and unbaked (green) anode introduced to the bake furnace. The weights will be used to determine compliance with the emission limits.

40 CFR 63.848 (k)

This condition ensures the measuring devices used to show compliance are accurate.

40 CFR 63.848 (l)

This condition states a facility can submit a written request to monitor different operating parameters of a device that reduces pollutant emissions than those listed in the regulation.

40 CFR 63.849 (a)

This condition lists the test methods the facility is allowed to use to measure emissions.

40 CFR 63.849 (c)

This condition clarifies the use of the word "potroom" and "potroom group" in reference method 14 means "potline" for the purposes of this regulation.

40 CFR 63.849 (d)

This condition tells how to properly install the ductwork for method 14 testing on the potlines.



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40 CFR 63.849 (e)

This condition outlines the way a facility can show an alternative test method is equivalent to the reference methods.

40 CFR 63.850 (a) (5)

40 CFR 63.850 (a) (6)

Facility must submit a notification of initial compliance status.

40 CFR 63.850 (b)

This condition explains how the facility shall report the initial and subsequent performance tests.

40 CFR 63.850 (c) (1)

This condition says the facility must outline the procedures in a plan to correct any problems with the operation and control of the control devices.

40 CFR 63.850 (c) (2)

This condition says the facility must keep records of the steps taken within the Startup, Shutdown, and Malfunction plan to correct any problems with the equipment and report any actions taken outside the plan.

40 CFR 63.850 (d)

This condition says the facility must report emissions in excess of the established limits every six months or every 3 months if excess emissions require the increased reporting.

40 CFR 63.850 (e) (1)

This condition says all records must be maintained for 5 years.

40 CFR 63.850 (e) (2)

This condition establishes the choices of record keeping medium that can be used to keep records.

40 CFR 63.850 (e) (3)

This condition says reports can be submitted on paper or computer disk.

40 CFR 63.850 (e) (4)

This condition lists what records must be kept by the facility.

40 CFR Part 63, Subpart A

The General Provisions in 40CFR63, Subpart A apply to facilities subject to other National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP) regulations in 40CFR63. These rules are also known as MACT rules since they are based on attaining Maximum Achievable Control Technology. Each MACT rule has a table or section that describe which portions of the General Provisions apply to facilities covered by that particular rule and which portions are overridden or do not apply. Note that NESHAP regulations found in 40CFR61 do **not** trigger the general provisions of 40CFR63.



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Section 63.1 relates to general applicability considerations both before and after promulgation of standards for a source category. Section 63.2 contains definitions common to the MACT rules. Section 63.3 contains units and abbreviations used in the MACT rules. Section 63.4 outlines generally prohibited activities such as operating in noncompliance with applicable standards and circumventing the rules. Section 63.5 describes how construction or reconstruction trigger requirements for preconstruction review.

Section 63.6 covers compliance issues such as how default new source and existing source compliance dates are calculated for each MACT rule; operation and maintenance requirements; startup, shutdown, and malfunction plan requirements; methods for determining compliance; alternative emission standards; compliance extensions; and compliance exemptions.

Section 63.7 covers performance testing requirements such as default notification and test deadlines; quality assurance programs: site-specific test plans; test facilities; general test conduct requirements; use of alternative test methods; data analysis, recordkeeping, and reporting; and performance test waivers.

Section 63.8 covers default monitoring requirements for continuous or periodic parameter monitoring, continuous opacity monitoring, and continuous emission monitoring.

Section 63.9 contains default notification requirements and deadlines for initial notifications, requests for extension of compliance, notification that a source is subject to special compliance requirements, continuous monitoring related notifications, and notifications of compliance status (also referred to as initial compliance reports).

Section 63.10 contains default general recordkeeping requirements as well as recordkeeping for applicability determinations and continuous monitoring systems. It also contains default reporting requirements for "one shot" items such as performance test results and immediate startup shutdown, malfunction reports. It also contains periodic (semi-annual) reporting requirements for startup, shutdown, and malfunction; excess emissions; and continuous monitoring performance.

40 CFR Part 63, Subpart ZZZZ

This regulation controls emissions of hazardous air pollutants (HAP) in the exhaust of stationary and portable internal combustion engines.

40 CFR Part 64

The federal Compliance Assurance Monitoring (CAM) rule, 40 CFR Part 64, requires monitoring of control device, capture system, and/or process parameters to provide a reasonable assurance of compliance with emission limitations or standards. It applies to emission units that use a control device to comply with certain standards and limitations and that have potential pre-control device emissions equal to or greater than a major source threshold.

Acid Rain program requirements; stratospheric ozone protection requirements; post-1990 New Source Performance Standards, Emission Guidelines, and National Emission Standards for Hazardous Air Pollutants; and some other limitations are exempt from CAM. However, many of the exempt requirements are subject to less stringent periodic monitoring under 40 CFR Part 70 and 6NYCRR Subpart 201-6.



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40 CFR Part 98

40 CFR Part 98 sets forth the reporting requirements for facilities that are subject to the mandatory reporting of greenhouse gases.

6 NYCRR 201-6.5 (f)

This regulation defines in general terms under what circumstances changes would be allowed without a permit modification provided the permit contains sufficient operational flexibility provisions.

6 NYCRR 211.1

This regulation requires that 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.

6 NYCRR 212.4 (a)

This rule requires compliance with the degree of control specified in Tables 2, 3 and 4 for new (after July 1, 1973) process emission sources.

6 NYCRR 212.4 (c)

This rule requires existing sources (in operation after July 1, 1973) of solid particulates with environmental rating of B or C which are not subject to Table 5 "Processes for which Permissible Emission Rate is Based on Process Weight, to be limited to an particulate emission rate not to exceed 0.05 grains per dry standard cubic foot.

6 NYCRR 212.5 (d)

This section specifies that if best available control technologies are implemented the commissioner may specify, under certain situations, a less restrictive emission rate.

6 NYCRR 212.6 (a)

This rule specifies an opacity limitation of less than 20% for any six consecutive minute period for all process emission sources.

6 NYCRR 227-1.3 (a)

This regulation prohibits any person from operating a stationary combustion installation which emits smoke equal to or greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.

6 NYCRR 227-1.6 (a)

This regulation requires that any facility found in violation of the provisions of Part 227 must not operate the affected stationary combustion installation that is in violation unless it is equipped with approved emission control equipment, it is rehabilitated or upgraded in an approved manner; or the fuel is changed to an acceptable type

6 NYCRR 227-1.6 (b)

This regulation states that the Department may seal the affected stationary combustion installation that does not comply with the provisions in subdivision 6 NYCRR 227-1.6(a) within the time provided.



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6 NYCRR 227-1.6 (c)

This regulation states that no person may operate any affected stationary combustion installation sealed by the commissioner in accordance with this Part 227.

6 NYCRR 227-1.6 (d)

This regulation states that no person except Department personnel may remove, tamper with, or destroy any seal affixed to any affected stationary combustion installation.

6 NYCRR 227-1.7

This condition requires the submission of test data, and the test methods used to acquire the data, that is acceptable to the Department.

6 NYCRR 228-1.1 (d)

This citation states that any coating line that is or becomes subject to the provisions of 6 NYCRR Part 228, will remain subject even if the annual potential to emit volatile organic compounds for the facility later falls below the thresholds set forth in this regulation. This is known as the "Once In Always In" provision.

6 NYCRR 228-1.2 (b) (35)

This citation specifies the formula used to calculate the maximum permitted pounds of volatile organic compound per gallon of coating specified in tables 1 and 2 of 6 NYCRR Part 228.

6 NYCRR 231-11.2 (b)

This subdivision is referred to as the "Reasonable Possibility" provisions. This citation lists the record keeping requirements for insignificant modifications that are less than 50% of the applicable significant project threshold including excluded emissions as defined in Part 231-4.1(b)(40)(i)(c).

6 NYCRR Part 209

6 NYCRR Part 226

This regulation specifies the general requirements, equipment specifications and operating requirements for open-top vapor, conveyORIZED and cold cleaning degreasers.

6 NYCRR Subpart 201-7

This regulation sets forth an emission cap that cannot be exceeded by the facility. In this permit that cap is 36360 tons of Aluminum Scrap thruput per year at a limit of 7.996 micrograms of Dioxin and Furan Equivalents per Megagram of Aluminum produced in the furnaces.

6 NYCRR Subpart 227-2



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This regulation limits the emission of oxides of nitrogen (NOx) from stationary combustion installations (boilers, combustion turbines and internal combustion engines).

6 NYCRR Subpart 231-8

This subpart applies to modifications to existing major facilities in attainment areas (prevention of significant deterioration (PSD)).

6 NYCRR Subpart 257-3

This condition requires the facility to test for total suspended particulates and compare the findings to the established National Ambient Air Quality Standards.

6 NYCRR Subpart 257-8

This condition requires the facility to test for fluoride levels in and on forage to ensure compliance with the standards.

Compliance Certification

Summary of monitoring activities at REYNOLDS METALS ST LAWRENCE REDUCTION PLANT:

| Location Facility/EU/EP/Process/ES | Cond No. | Type of Monitoring |
|---|-----------------|---------------------------------------|
| --- | | |
| FACILITY | 35 | record keeping/maintenance procedures |
| FACILITY | 36 | record keeping/maintenance procedures |
| P-OT001/-/B01 | 104 | record keeping/maintenance procedures |
| P-OT001/-/B01 | 105 | intermittent emission testing |
| P-OT001/-/A02 | 88 | record keeping/maintenance procedures |
| P-OT001/-/A02 | 89 | intermittent emission testing |
| P-OT001/-/A02 | 90 | intermittent emission testing |
| P-OT001 | 59 | intermittent emission testing |
| P-OT001/-/A02 | 91 | intermittent emission testing |
| P-OT001/-/B01 | 106 | intermittent emission testing |
| P-OT001/-/B01 | 107 | record keeping/maintenance procedures |
| P-OT001/-/A02 | 92 | intermittent emission testing |
| P-OT001/-/A02 | 93 | intermittent emission testing |
| P-OT001/-/B01 | 108 | intermittent emission testing |
| P-OT001 | 63 | record keeping/maintenance procedures |
| P-OT001/-/A02 | 94 | record keeping/maintenance procedures |
| P-OT001/-/A02/E5152 | 97 | record keeping/maintenance procedures |
| P-OT001/-/A02/E5354 | 98 | record keeping/maintenance procedures |
| P-OT001/-/A02/E5556 | 99 | record keeping/maintenance procedures |
| P-OT001/-/B01 | 110 | record keeping/maintenance procedures |
| P-OT001/-/B01 | 111 | record keeping/maintenance procedures |
| P-OT001/-/A02 | 95 | intermittent emission testing |
| P-OT001/-/B01 | 112 | intermittent emission testing |
| P-OT001/-/A02 | 96 | intermittent emission testing |
| P-OT001 | 68 | record keeping/maintenance procedures |
| P-OT001 | 71 | record keeping/maintenance procedures |
| P-OT001 | 78 | record keeping/maintenance procedures |



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| | | |
|---------------------|-----|--|
| P-OT001 | 79 | record keeping/maintenance procedures |
| P-OT001 | 80 | record keeping/maintenance procedures |
| P-OT001 | 81 | record keeping/maintenance procedures |
| P-OT001 | 82 | record keeping/maintenance procedures |
| FACILITY | 43 | record keeping/maintenance procedures |
| FACILITY | 5 | record keeping/maintenance procedures |
| FACILITY | 22 | record keeping/maintenance procedures |
| FACILITY | 23 | record keeping/maintenance procedures |
| B-OIL01/-/I01/0222H | 53 | monitoring of process or control device parameters as surrogate |
| B-OIL01/-/I01/0322H | 54 | monitoring of process or control device parameters as surrogate |
| P-DIG01/-/E02/E4685 | 57 | intermittent emission testing |
| P-DIG01/-/E02/E4685 | 58 | intermittent emission testing |
| P-OT001/-/B01 | 100 | monitoring of process or control device parameters as surrogate |
| FACILITY | 6 | record keeping/maintenance procedures |
| P-OT001 | 118 | record keeping/maintenance procedures |
| FACILITY | 25 | monitoring of process or control device parameters as surrogate |
| FACILITY | 26 | monitoring of process or control device parameters as surrogate |
| FACILITY | 27 | record keeping/maintenance procedures |
| FACILITY | 28 | intermittent emission testing |
| P-OT001/-/A02 | 83 | intermittent emission testing |
| P-OT001/-/A02 | 84 | intermittent emission testing |
| P-OT001/-/A02 | 85 | intermittent emission testing |
| P-OT001/-/A02 | 86 | work practice involving specific operations |
| P-OT001/-/A02 | 87 | record keeping/maintenance procedures |
| P-OT001/-/B01 | 101 | work practice involving specific operations |
| P-OT001/-/B01 | 102 | intermittent emission testing |
| P-OT001/-/B01 | 103 | intermittent emission testing |
| FACILITY | 29 | monitoring of process or control device parameters as surrogate |
| FACILITY | 30 | record keeping/maintenance procedures |
| FACILITY | 31 | monitoring of process or control device parameters as surrogate |
| FACILITY | 32 | record keeping/maintenance procedures |
| E-WCST1/-/CR1/CR101 | 55 | record keeping/maintenance procedures |
| FACILITY | 33 | ambient air monitoring |
| FACILITY | 34 | record keeping/maintenance procedures |

Basis for Monitoring

Condition #5) 6 NYCRR Part 201-6.5(c)(3)(ii): This facility is a major facility as defined in 6 NYCRR Part 201-2. Any facility that receives a Title V permit is required to make a semi-annual monitoring report.

Condition #6) 6 NYCRR Part 202-2.1: Any facility issued a Title V permit must submit an annual emission statement by April 15th every year.

Condition #22) 6 NYCRR Part 201-6.5(e): This facility is a major facility as defined in 6 NYCRR Part 201-2. Any facility that receives a Title V permit is required to submit an annual compliance certification.

Condition #23) 6 NYCRR Part 201-6.5(f): This condition allows the facility to utilize an operational flexibility plan to address some changes that are made to facility operations and emission sources.



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Facility must follow the notification and record keeping requirements of the plan in order to demonstrate changes are allowed under the plan and don't require a permit modification.

Conditions #25 & 26) 6 NYCRR Part 212.4(a): These conditions require monitoring of the North and South wet scrubbers (emission sources B5156 & C5156). Monitoring of the liquor level and pH will ensure that sulfur dioxide and carbonyl sulfide are removed at the required rate. The pH range and the liquor level range were established through testing and manufacturer's recommendations. The wet scrubbers will be used to control emissions from the 3 sodberg potlines (emission unit P-OT001, process A02) and the pre-bake potline (emission unit P-OT001, process B01).

Conditions #27 & 28) 6 NYCRR Part 212.4(c): These conditions ensure proper operation and control of the particulate control devices at the facility by requiring that they follow an Operation and Maintenance plan that has been approved by the Department. The facility shall follow the plan and report any exceedances of any monitored parameters semiannually. Operation of these control devices will ensure the affected sources comply with the 0.050 grains per dry standard cubic foot emission limit. Compliance testing will be done as requested by the Department if and when it becomes necessary to show the control device is operating as designed.

Condition #29) 6 NYCRR Part 212.6(a): This condition ensures proper operation and control of the particulate control devices at the facility by requiring that they follow an Operation and Maintenance plan that has been approved by the Department. The facility shall follow the plan and report any exceedances of any monitored parameters semiannually. Operation of these control devices will ensure the affected sources comply with the 20% opacity limit. Visible emissions observations will be done as requested by the Department if and when it becomes necessary to show the control device is operating as designed.

Condition #30) 6 NYCRR Part 226: This condition specifies how the facility must maintain and operate all of its cold cleaning degreasers. The facility must monitor and report on the operation of each degreaser to ensure VOC emissions are limited.

Condition #31) 6 NYCRR Part 227-1.3(a): The combustion sources at this facility (emission sources 0222H & 0322H) are limited to 20% opacity. The facility shall verify compliance with this limit by performing a visible emissions observation in accordance with EPA reference method 9 at the request of the Department.

Condition #32) 6 NYCRR Part 228-1.2(b)(35): This condition requires the facility to calculate the VOC content of all coatings applied at the facility that have to comply with VOC RACT. Facility must maintain records of the VOC content of all coatings used to ensure they apply with the appropriate VOC RACT limit.

Condition #33) 6 NYCRR Part 257-3: This condition requires the facility to perform quarterly ambient sampling for particulate matter (PM) to ensure compliance with NY states ambient air quality standard for suspended particulates.

Condition #34) 6 NYCRR Part 257-8: This condition requires the facility to fluoride in vegetation sampling during the growing season (May - October) each year. The results are compared to the NY state fluoride in vegetation limits to ensure compliance.

Condition #36) 40 CFR 52.21: This condition identifies a list of emission sources and control equipment that will begin permanent shutdown upon start-up of the new prebake potline (emission unit P-OT001, process B01). The condition also requires the facility to provide a detailed start-up and



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shutdown schedule at least 30 days prior to the energization of the first pot in the new prebake potline.

Condition #43) 40 CFR 64: This condition requires various emission sources with particulate matter (PM) emissions that are controlled to operate, monitor and record parameters as required by the April 30, 2007 Compliance Assurance Monitoring (CAM) Plan. The plan limits have been established to ensure effective control of PM from all emission sources listed in this condition.

Conditions #53 & 54) 6 NYCRR Part 201-7: The facility has accepted limits on the oxides of nitrogen (NOx) emissions from both boilers in order to meet the NOx RACT requirements of 6 NYCRR Part 227-2. Boiler #1 (emission source 0222H) is limited to 21.3 tons NOx during any 12 month period and Boiler #3 (emission source 0322H) is limited to 20.0 tons NOx during any 12 month period. Facility will maintain records of the amount of natural gas burned in each boiler in order to verify compliance with these emission limits.

Condition #55) 6 NYCRR Part 231-11.2(b): This condition requires the facility to perform annual actual emission calculations for the cruce salting process (emission unit E-WCST1, Process CR1) for a period of 5 years following first operation. This information is used to confirm that the cruce salting process has not resulted in a significant net emissions increase of particulate matter less than 10 microns in diameter (PM-10) or particulate matter less than 2.5 microns in diameter (PM-2.5).

Conditions #57 & 58) 6 NYCRR Part 201-7: The facility has accepted limits on the emissions of particulate matter (PM) and particulate matter less than 10 microns in diameter (PM-10) from the cathode digging process (emission unit P-DIG01, process E02) in order to avoid the federal Prevention of Significant Deterioration (PSD) requirements for new emission sources (40 CFR 52.21). PM emissions are limited to 5.7 pounds/hour and PM-10 emissions are limited to 3.4 pounds/hour.

Condition #59) 40 CFR 63.846(b)(2): This condition requires annual emissions testing for total fluoride emissions from the two wet scrubbers (emission sources B5156 & C5156) during operation of the three soderberg potlines (emission unit P-OT001, process A02).

Condition #63) 40 CFR 63.847(e)(6): This condition requires the facility to determine the aluminum production rate from the three soderberg potlines (emission unit P-OT001, process A02) on a monthly basis. The aluminum production rate is determined by dividing the aluminum tapped from the each potline during a calendar month by the number of hours in that calendar month.

Condition #68) 40 CFR 63.848(g): The condition requires the facility to perform daily visual inspections of the wet scrubber stacks (emission sources B5156 & C5156) for evidence of any visible emissions that indicate abnormal operation. This is required during operation of the three soderberg potlines (emission unit P-OT001, process A02) and of the new prebake potline (emission unit P-OT001, process B01).

Condition #71) 40 CFR 63.848(j): This condition requires the installation of a device to monitor the daily weight of aluminum produced in the three soderberg potlines (emission unit P-OT001, process A02) and the new prebake potline (emission unit P-OT001, process B01).

Condition #78) 40 CFR 63.850(d): This condition requires the facility to submit a report if measured emissions are in excess of an applicable standard for the three soderberg potlines (emission unit P-OT001, process A02) and the new prebake potline (emission unit P-OT001, process B01).

Condition #82) 40 CFR 63.850(e)(4): This condition requires the facility to maintain various records



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regarding operation of the three soderberg potlines (emission unit P-OT001, process A02) and the new prebake potline (emission unit P-OT001, process B01) beyond those that are required by 40 CFR 63.10(b).

Condition #83, 84, 85, 86 & 87) 6 NYCRR Part 212.5(d): These conditions specify what BACT is for the following pollutants from the soderberg potlines (emission unit P-OT001, process A02): particulates (PM), carbon monoxide (CO), sulfur dioxide (SO₂), carbonyl sulfide (COS) and benzene. For PM the facility will perform quarterly emissions testing to demonstrate compliance with a 27.0 lb/ton limit. For CO the emissions are calculated based on the potline current efficiency to determine compliance with a 404 lb/ton limit. For SO₂ the facility is limited to using coke with a maximum of 3.0% sulfur by weight. The sulfur content of coke must be determined for each delivery. For COS the facility will perform once every five years to demonstrate compliance with a 3.9 lb/ton limit. For benzene the facility must perform additional emissions testing within six months of department approval of a benzene test program. If benzene emissions are found equal to or greater than 1.0 lb/hr the facility shall submit a BACT determination for benzene.

Condition #88, 89 & 90) 40 CFR 63.846: These conditions specify the total fluoride (TF) and polycyclic organic matter (POM) emission limits for the three soderberg potlines (emission unit P-OT001, process A02). The limits are based on emission averaging across the three potlines. The TF limit is 2.4 pounds of TF per ton of aluminum produced on a monthly average basis. The POM limit is 3.8 pounds of POM per ton of aluminum produced on a quarterly average basis.

Condition #91) 40 CFR 63.846(b)(2): This condition specifies how the facility determine compliance with the monthly average emissions of TF from the three soderberg potlines (emission unit P-OT001, process A02). The monthly average emissions of TF from each potline from at least three compliance test runs each month shall be considered the TF secondary emissions. The monthly average TF secondary emissions from an individual potline are added to the TF emissions from the primary control system and that total TF emission value is divided by the total monthly aluminum production from that potline.

Condition #92 & 93) 40 CFR 63.847(d): These conditions specify that compliance testing of TF and POM emissions from the three soderberg potlines (emission unit P-OT001, process A02) shall be conducted in accordance the the NESHAP General Provisions , the facility's approved test plan and test methods specified in 40 CFR 63 Subpart LL.