



New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 6-4058-00003/00365

Renewal Number: 1

Modification Number: 2 10/31/2016

Facility Identification Data

Name: ARCONIC

Address: PARK AVE E

MASSENA, NY 13662

Owner/Firm

Name: ALCOA INC

Address: 201 ISABELLA ST

PITTSBURGH, PA 15212-5858, USA

Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:

Name: LAWRENCE R AMBEAU

Address: NYSDEC - REGION 6

317 WASHINGTON ST

WATERTOWN, NY 13601

Phone:3157852245

Division of Air Resources:

Name: MARK P NOWAK

Address: NYSDEC - Region 6

317 Washington ST

Watertown, NY 13601

Phone:3157852513

Air Permitting Contact:

Name: TODD FURNIA

Address: ARCONIC

PARK AVE E

MASSENA, NY 13662

Phone:3152129069

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 which includes a project to build a new potline at the Alcoa Massena East Plant (Reynolds). The project includes changes at both plants and has been capped out of PSD applicability.



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Attainment Status

ARCONIC 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:

Alcoa, Inc. owns and operates a primary aluminum producing and fabricating facility in Massena, New York (Massena operations). Massena operations is comprised of three production areas: smelting plant (area III), ingot-extrusion area (area II), and fabricating plant (area I). Products include aluminum metal, ingot, wire, rod and bar. Facility also produces steam in an on-site boilerhouse.

Permit Structure and Description of Operations

The Title V permit for ARCONIC

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



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ARCONIC is defined by the following emission unit(s):

Emission unit F00001 - Arconic Engineered Products (AEP) fugitives.

Process: FB1 FUGITIVES FROM THE BULL BLOCK. PROCESS APPLIES HIGH BOILING POINT (GREATER THAN 300F) SOLVENT TO SLIGHTLY HOT METAL TO ADHERE METAL TO BLOCK. VOC EMISSIONS ARE INCLUDED ON THE ANNUAL EMISSIONS STATEMENT.

Process: FB2 FUGITIVES FROM THE INK JET PRINTER. METHYL ETHYL KETONE (MEK) USED AS A CARRIER SOLVENT. MEK EMISSIONS ARE INCLUDED ON THE ANNUAL EMISSIONS STATEMENT.

Process: FB3 FUGITIVES FROM WAX DIPPING AND AIR DRYING COILS. WAX IS MIXED WITH WATER AND HEATED, THUS DOES NOT HAVE A HIGH VOC CONTENT.

Emission unit P00001 - This emission unit consists of all the parts washers in the facility.

Process: PWS THIS PROCESS CONSISTS OF ALL THE COLD CLEANING PARTS WASHERS.

Emission unit A00001 - Process heaters treat solid aluminum and emit small quantities of process emissions due to residuals on the aluminum. Emissions co-mingle with products of combustion (poc) from natural gas burners.

Emission unit A00001 is associated with the following emission points (EP):

F0014, F0015, F001A, F001C, F001D, F002A, F002B, F0075, F074A, F074B, F078A, F078B, FC01A, FC01C, FC01D, I0014, I015A, I015B

Process: EPH One 6500 TON PRESS PRE-HEAT, ONE 1500 TON PRESS PRE-HEAT AND ONE 5300 TON PRESS PRE-HEAT FURNACE. EACH USES MULTIPLE DIRECT FIRE NATURAL GAS BURNERS.

Process: HT1 #30, 31, 32, 34, 35, 38 HEAT TREAT FURNACES PROCESS EXHAUST. EACH FURNACE EXHAUSTS THROUGH THEIR OWN EMISSION POINT. #32, 34 AND 35 FURNACES ARE INDIRECTLY FIRED AND HAVE SEPARATE COMBUSTION EXHAUSTS. RESIDUAL OIL ON ALUMINUM PRODUCES SLIGHT VOC EMISSION. CHEMICAL ADDITIVE PREVENTS OXIDATION OF SURFACE OF METAL AND PRODUCES INCIDENTAL HYDROGEN FLUORIDE EMISSION AS A BY-PRODUCT.

Process: HT2 HEAT TREAT FURNACES #13, #14 AND #15 ARE INDIRECT FIRED NATURAL GAS FURNACES WHERE THE PRODUCTS OF COMBUSTION EXHAUST THROUGH EMISSION POINT (EP) F078A. THE FURNACE IS EXHAUSTED THROUGH EP F0014. HEAT TREAT FURNACES #16, #17 AND #18 HAVE A SIMILAR ARRANGEMENT WHERE THE PRODUCTS OF COMBUSTION EXHAUST THROUGH EP F078B AND THE FURNACE EXHAUST THROUGH EP F0015. FURNACE PROCESS EMISSIONS CONSIST OF RESIDUAL DRAWING LUBE FROM THE BARS WHICH ARE COMBUSTED AND VAPORIZED DURING THE BEGINNING OF THE HEAT SLIGHT VOC EMISSIONS.



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Emission unit W00001 - Wastewater treatment operations.

Emission unit W00001 is associated with the following emission points (EP):
 F0069, F0070, F0071

Process: WWT Wastewater treatment consists of chemical pre-treatment, and biological treatment.

Emission unit B00002 - Two (2) 3.0 MMBtu/hr natural gas fired package boilers sharing a common stack.

Emission unit B00002 is associated with the following emission points (EP):
 B001B

Process: STM Two (2) 3 MMBtu/hr natural gas fired package boilers sharing a common stack.

Emission unit D00001 - Aluminum Burnisher

Emission unit D00001 is associated with the following emission points (EP):
 F0042

Process: ALB is located at Building 140 - Aluminum Burnisher

Title V/Major Source Status

ARCONIC 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 (NOx), 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 ARCONIC with regards to the principal air pollution regulatory programs:

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



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RACT	YES
SIP	YES

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52, 6 NYCRR 231-7, 231-8) - 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 231-5, 231-6) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 201-6) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subpart A thru G, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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



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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

3354	ALUMINUM EXTRUDED PRODUCTS
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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

1-02-004-01	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - RESIDUAL OIL Grade 6 Oil
1-02-006-01	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS Over 100 MBtu/Hr
1-02-006-02	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS 10-100 MMBtu/Hr
2-88-888-01	INTERNAL COMBUSTION ENGINES - FUGITIVE EMISSIONS INTERNAL COMBUSTION ENGINE: FUGITIVE EMISSIONS, OTHER/NOT CLASSIFIED Specify in Comments
3-01-820-03	CHEMICAL MANUFACTURING CHEMICAL MANUFACTURING - WASTEWATER AGGREGATE
3-03-001-01	WASTEWATER TREATMENT PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION) Prebaked Reduction Cell
3-03-001-04	PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-03-001-05	Materials Handling PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-03-001-99	Anode Baking Furnace PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE



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3-03-003-12	(ELECTRO-REDUCTION) NOT CLASSIFIED ** PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION (BY-PRODUCT COKE MANUFACTURING)
3-04-001-03	Coke: Crushing/Screening/Handling SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Smelting Furnace/Reverberatory
3-04-001-04	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Fluxing: Chlorination
3-04-001-09	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Burning/Drying
3-04-001-12	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Annealing Furnace
3-04-001-99	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Other Not Classified
3-04-022-01	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - METAL HEAT TREATING
3-85-001-01	Furnace: General COOLING TOWER COOLING TOWER - PROCESS COOLING MECHANICAL DRAFT
3-90-006-99	IN-PROCESS FUEL USE INDUSTRIAL PROCESSES - IN-PROCESS FUEL USE General
4-01-002-95	ORGANIC SOLVENT EVAPORATION ORGANIC SOLVENT EVAPORATION - DEGREASING OTHER NOT CLASSIFIED - GENERAL DEGREASING UNITS

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 for each contaminant that is displayed represents the facility-wide PTE in tons per year (tpy) or pounds per year (lbs/yr). In some instances the PTE represents a federally enforceable emissions cap or limitation for that contaminant. 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.

Cas No.	Contaminant	PTE lbs/yr	PTE tons/yr	Actual lbs/yr	Actual tons/yr
000107-02-8	ACROLEIN				



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007664-41-7	AMMONIA
007440-36-0	ANTIMONY
007440-38-2	ARSENIC
000050-32-8	BENZO(A)PYREN E
007440-41-7	BERYLLIUM
007440-43-9	CADMIUM
0NY750-00-0	CARBON DIOXIDE EQUIVALENTS
000630-08-0	CARBON MONOXIDE
000463-58-1	CARBONYL SULFIDE
007782-50-5	CHLORINE
007440-47-3	CHROMIUM
007440-48-4	COBALT
000057-12-5	CYANIDE
000111-42-2	ETHANOL, 2,2'- IMINOBIS-
016984-48-8	FLUORIDE
000050-00-0	FORMALDEHYDE
000074-90-8	HYDROCYANIC ACID
007647-01-0	HYDROGEN CHLORIDE
007664-39-3	HYDROGEN FLUORIDE
007439-92-1	LEAD
007439-96-5	MANGANESE
007439-97-6	MERCURY
000091-20-3	NAPHTHALENE
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS
0NY210-00-0	OXIDES OF NITROGEN
0NY075-00-0	PARTICULATES
000108-95-2	PHENOL
0NY075-02-5	PM 2.5
001336-36-3	POLYCHLORINAT ED BIPHENYL
007782-49-2	SELENIUM
007446-09-5	SULFUR DIOXIDE
0NY100-00-0	TOTAL HAP
0NY998-00-0	VOC

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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



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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 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 201-6.2(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 201-6.2(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 201-6.4(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



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Associated Information Submission Requirements - 6 NYCRR Part 201-6.4(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 201-6.4(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 compliance with the conditions of this permit.

Item H: Property Rights - 6 NYCRR 201-6.4(a)(6)

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

Item I: Severability - 6 NYCRR Part 201-6.4(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 201-6.4(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 201-6.4(i)

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



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- 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 2 01-6.7 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.
- 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.

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**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.

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	189	Powers and Duties of the Department with respect to air pollution control
FACILITY	40CFR 52-A.21	40	Prevention of Significant Deterioration
FACILITY	40CFR 63-DDDDD	2 -24	Boilers and Process Heaters Major Source NESHAP rule
FACILITY	40CFR 63-ZZZZ	73	Reciprocating Internal Combustion Engine (RICE) NESHAP
FACILITY	40CFR 68	19	Chemical accident prevention provisions
FACILITY	40CFR 82-F	20	Protection of Stratospheric Ozone - recycling and emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient air quality.
FACILITY	6NYCRR 200.7	9	Maintenance of equipment.
FACILITY	6NYCRR 201-1.4	190, 2 -27	Unavoidable noncompliance and violations
FACILITY	6NYCRR 201-1.7	2 -6	Recycling and Salvage
FACILITY	6NYCRR 201-1.8	11	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-3.2(a)	2 -7	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	2 -8	Trivial Activities -



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FACILITY	6NYCRR 201-6	22, 75, 76	proof of eligibility Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-6.4(a)(4)	2 -9	General Conditions - Requirement to Provide Information
FACILITY	6NYCRR 201-6.4(a)(7)	2 -1	General Conditions - Fees
FACILITY	6NYCRR 201-6.4(a)(8)	2 -10	General Conditions - Right to Inspect
FACILITY	6NYCRR 201-6.4(c)	2 -2	Recordkeeping and Reporting of Compliance Monitoring Records of Monitoring, Sampling and Measurement Reporting
FACILITY	6NYCRR 201-6.4(c)(2)	2 -3	Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4(c)(3)(ii)	2 -4	Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4(d)(4)	2 -13	Compliance Certification
FACILITY	6NYCRR 201-6.4(e)	2 -5	Off Permit Changes
FACILITY	6NYCRR 201-6.4(f)(6)	2 -11	Compliance Certification
FACILITY	6NYCRR 201-6.5(e)	23	Required emissions tests.
FACILITY	6NYCRR 202-1.1	2 -12	Emission Statements - Applicability
FACILITY	6NYCRR 202-2.1	6	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 202-2.5	7	General Prohibitions - air pollution prohibited
FACILITY	6NYCRR 211.1	25	General Prohibitions - visible emissions limited.
FACILITY	6NYCRR 211.2	193	General Provisions - Applicability
FACILITY	6NYCRR 212-1.1(a)(1)	2 -14	Limiting of Opacity HTACs applicable to Table 212-2.3 Table 4
A-00001/F0014 FACILITY	6NYCRR 212-1.6(a)	2 -25	
FACILITY	6NYCRR 212-2.1(a)	2 -28	Use citation 212- 2.3(a) and (b) for Table 3 and Table 4 citations
FACILITY	6NYCRR 212-2.1(b)	2 -15, 2 -16, 2 -17	Control of Particulate from New and Modified Process Emission Sources
FACILITY	6NYCRR 212-2.4(b)	2 -18	Owners or operators of applicable emission points commences construction after August 15, 1994
FACILITY	6NYCRR 212-3.1(f)	2 -19, 2 -20	Open Fires - Prohibitions
FACILITY	6NYCRR 215.2	8	SOLVENT METAL CLEANING PROCESSES
FACILITY	6NYCRR 226	2 -21	



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FACILITY	6NYCRR 227-1.3(a)	2	-22	Smoke Emission Limitations.
B-00002	6NYCRR 227-2.4(d)	2	-26	Small boilers, small combustion turbines, and small stationary internal combustion engines.
FACILITY	6NYCRR 231-2	2	-23	New Source Review in Nonattainment Areas and Ozone Transport Region

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.

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



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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 201-6.4 (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 201-6.4 (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 201-6.4 (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 201-6.4 (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 201-6.4 (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.

6 NYCRR 201-6.4 (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 201-6.4 (d) (5)



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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 201-6.4 (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 201-6.4 (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 201-6.4 (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 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 211.2

This regulation limits opacity from sources to less than or equal to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

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 their 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



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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.

Facility Specific Requirements

In addition to Title V, ARCONIC 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 Part 63, Subpart DDDDD

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP emissions. It also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

40 CFR Part 63, Subpart ZZZZ

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 212-1.1 (a) (1)

The provisions of the revised Part 212, effective June 14, 2015, applies to process equipment for a new or modified permit or registration or upon issuance of a renewal for an existing permit or registration.

6 NYCRR 212-1.6 (a)

This provisions requires that the facility owner or operator not 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.



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6 NYCRR 212-2.1 (a)

This provision is for an air contaminant listed in Section 212-2.2 Table 2 - High Toxicity Air Contaminant List (HTAC). The facility owner or operator must either limit the actual annual emissions from all process operations at the facility so as to not exceed the mass emission limit listed for the individual HTAC; or demonstrate compliance with the air cleaning requirements for the HTAC as specified in Subdivision 212-2.3(b), Table 4.

6 NYCRR 212-2.1 (b)

This provision applies to any air contaminant not listed on the High Toxicity Air Contaminant List (HTAC) and states the facility owner or operator shall not allow emissions of an air contaminant to violate the requirements specified in Subdivision 212-2.3(a), Table 3 - or Table 4.

6 NYCRR 212-2.4 (b)

Particulate emissions from any process emission source, which received a B or C Environmental Rating, and for which an application was received by the department after July 1, 1973 are restricted to 0.050 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis.

6 NYCRR 212-3.1 (f)

This provision states that owners and/or operators of emission points located at applicable facilities and commence construction after August 15, 1994 must submit a RACT demonstration for nitrogen oxides and VOC emissions with each application for a permit to operate. RACT must be implemented on these emission points when operation commences. A RACT analysis is not required for new emission points with NOx and VOC emission rate potentials less than 3.0 pounds per hour and actual emissions in the absence of control equipment less than 15.0 pounds per day at facilities located outside of the Lower Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury and New York City metropolitan area.

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.



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6 NYCRR 227-2.4 (d)

This section includes NOx RACT requirements for small boilers, small combustion turbines, and small stationary internal combustion engines.

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 231-2

The provisions of Subpart 231-2 apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides and volatile organic compounds since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

The Arconic facility consists of part of the former Alcoa, Inc. facility. The other part of the old Alcoa Inc. facility is the Alcoa USA Inc. facility. Each facility will be an independent legal entity, but due to the design of the split for this facility, they will still be considered one facility for the purposes of New Source Review and Title V applicability. The Alcoa USA Corp facility will retain the air pollution boundaries of the original facility fenceline, which includes the Arconic facility. There is also the sharing of other parts of the infrastructure of the facilities. The Arconic facility will retain ownership of the land, which includes all the PBS and CBS responsibilities, licensing and permitting. Arconic will handle all the wastewater at both facilities. Alcoa USA Corp will create and provide all process water for both facilities. They will share one guard shack and personnel. Electric is provided through the Alcoa USA Corp facility. The potable water facilities are shared as well as remediation operations and maintenance and waste services. With all this shared infrastructure, operations and boundaries, it was determined the facilities are still considered one facility for the purposes of New Source Review and Title V applicability.

Compliance Certification

Summary of monitoring activities at ARCONIC:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring
FACILITY	40	record keeping/maintenance procedures
FACILITY	2-4	record keeping/maintenance procedures
FACILITY	2-5	record keeping/maintenance procedures
FACILITY	23	record keeping/maintenance procedures



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FACILITY	6	record keeping/maintenance procedures
FACILITY	2-14	record keeping/maintenance procedures
A-00001/F0014	2-25	monitoring of process or control device parameters as surrogate
FACILITY	2-28	intermittent emission testing
FACILITY	2-15	intermittent emission testing
FACILITY	2-16	intermittent emission testing
FACILITY	2-17	record keeping/maintenance procedures
FACILITY	2-18	intermittent emission testing
FACILITY	2-19	intermittent emission testing
FACILITY	2-20	intermittent emission testing
FACILITY	2-21	record keeping/maintenance procedures
FACILITY	2-22	monitoring of process or control device parameters as surrogate
B-00002	2-26	record keeping/maintenance procedures
FACILITY	2-23	record keeping/maintenance procedures

Basis for Monitoring

Many of the conditions in this permit just lists the applicable emission limit as set forth in the regulations. The potential to emit as many of the processes would normally operate would not emit above thresholds that would require controls be put on. The following conditions were written in case there was an operational or process change that would increase the emissions of regulated contaminants above the thresholds that would require control: Conditions; 12 - 14, 29- 33, 39, 51, 53, 61, 67- 69, 71, 75, 116, 195, 196, 198, 199, 200, 206, 207, and 210-213.

Condition 21: In order for the surface coating operation to remain exempt, total usage must remain below 25 gallons per month.

Condition #28: In order to show compliance with the particulate limit in 6 NYCRR part 212, all sources that employ particulate control devices shall be operated and maintained according to the Operation and Maintenance plan submitted to the Department.

Condition #29: The listed sources, under normal operating procedures, are in compliance with the particulate limit in 6 NYCRR part 212.

Condition #31: The listed sources are subject to the opacity limit and are able to meet it under normal operationing procedures.

Condition #39: In order to show compliance with the Total Fluoride limit in and on forage as set forth in 6 NYCRR 257-8, Alcoa shall do testing and reporting in accordance with the "Work/Quality Assurance Project Plan- Sampling and Analysis for Fluoride in Vegetation" dated May 5, 1999.

40 CFR 63, Subpart LL Primary Aluminum Reduction: This regulation outlines the ways the facility must show compliance with the emission limits for Fluorides and Polycyclic Organic Matter (POMs).

40 CFR 63, subpart RRR Secondary Aluminum Production: This regulations outlines the ways the facility must show compliance with the emission limits of HCl, D/F, particulates and THC in the secondary Aluminum production units.

Condition #36, 83, 84, 87-94, 198 : When firing oil, these sources must comply with these conditions to ensure compliance with the particulate emission limits and the sulfur in fuel limits.



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Condition #37: Under the current configuration and with proper operation, the facility is able to meet the 0.10 lbs of particulates per mMBtu on a 2 hour average.

Conditions 38, 85, 86, 95, 130, 131, 157, 158- 6 NYCRR Part 249-BART-The listed sources were found to have BART level control for the listed contaminants.

Condition #74- 40 CFR 64 Compliance Assurance Monitoring- The listed sources are subject to CAM and will show compliance using the approved CAM plan.

Condition #97: The facility will test at the request of the Department to show emission unit C-00001 will not emit more than 9.1 pounds per hour of oxides of nitrogen under normal operating conditions which will eliminate the applicability of 6 NYCRR Part 231.

Condition #96: The facility will test at the request of the Department to show emission unit C-00001 will not emit more than 9.1 pounds per hour of Volatile Organic Compounds under normal operating conditions which will eliminate the applicability of 6 NYCRR Part 231.

Condition #98: The facility will test at the request of the Department to show emission unit C-00001 will not emit more than 9.1 pounds per hour of oxides of nitrogen under normal operating conditions which will eliminate the applicability of 40 CFR 52.21(i)(1), subpart A.

Condition #102: The facility must submit a Best Available Control Technology (BACT) analysis for the emissions of Carbon Monoxide from emission process CD1 in order to show compliance with 6 NYCRR part 212.5(d). Otherwise, it must apply control or reduce emissions below 10 pounds per hour.

Condition #103: The current equipment configuration was found to be "RACT" for NOx emissions from emission source C0030. When new technology becomes available, or if current technology becomes cheaper, another NOx RACT analysis should be done.

Condition #105-6 NYCRR Part 231-2.2(d)(3): Testing shall be completed at the request of the Department to show the emission rate of VOC is less than 9.1 pounds per hour from emission unit C-00002 under normal operating conditions in order to avoid applicability of 6 NYCRR 231 New Source Review (NSR).

Condition #104- 6 NYCRR Part 231-2.2(d)(3): Testing shall be completed at the request of the Department to show the emission rate of NOx is less than 9.1 pounds per hour from emission unit C-00002 under normal operating conditions in order to avoid applicability of 6 NYCRR 231 New Source Review (NSR).

Condition #106: Testing shall be completed at the request of the Department to show the emission rate of Particulates is less than 3.4 pounds per hour from emission unit C-00002 under normal operating conditions in order to avoid applicability of 40 CFR 52.21(i)(1).

Condition #35- 6 NYCRR 212.10(c)(3): The listed emission units all employ low NOx burners which is considered RACT for the emission of NOx.

Condition #128- 6 NYCRR 226.3(a): Small cold cleaning degreasers are subject to the provisions of Part 226 unless they qualify as exempt under the 226.7.



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Condition 119: The installation of the new furnace requires tracking of the emission in order to ensure the numbers used for the NSR review are correct and will not require further permitting.

Condition #173 & #174- 6 NYCRR Part 212.10(c)(3): A RACT analysis was completed in 1998 and it was shown that additional VOC or NOx controls were technically infeasible. The alumina dry scrubber is considered RACT for VOC control and will be operated and reported under the guidelines of 40 CFR 63 subpart LL for primary aluminum production.

Condition 183: This condition caps the particulates emissions on source M16, in order to keep it out of PSD applicability.

Condition #183- 6 NYCRR 201-7: The particulate emissions from Process M16 (spent potliner Handling) are limited to less than 15 tons per year to avoid 40 CFR 52.21 applicability. The stack test data, number of hours it is operated, and the baghouse hourly use and parameters are enough to ensure compliance with the limit.

Condition #191: 6 NYCRR Part 209 is less stringent than 40 CFR 63, subpart LL for primary aluminum reduction facilities. As long as the facility is in compliance with subpart LL, it is in compliance with part 209.

Condition 196: This condition requires the combustion installation at the facility to limit emissions of NOx to 0.30 lbs/mmBtu. The current configuration with low NOx burners and Flue Gas recirculation is considered RACT and BART.

Condition #30- 6 NYCRR 212.5(d): The Department has approved a BACT analysis for the emission of Carbon Monoxide, Carbonyl Sulfide, and Sulfur Dioxide. The facility shall not use coke in the anode production with a sulfur content greater than 2.5 % by weight. The % sulfur shall be an annual average rolled monthly based on supplier test data. This will result in a significant reduction in the PTE of COS and SO2. The control of Carbon Monoxide was found to be infeasible technologically and financially.



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