New York State Department of Environmental Conservation  
Permit Review Report  

Permit ID: 6-4058-00178/00001  
11/01/2016  

Facility Identification Data  
Name: ALCOA USA CORP  
Address: PARK AVE EAST  
MASSENA, NY 13662  

Owner/Firm  
Name: ALCOA USA CORP  
Address: 201 ISABELLA ST  
PITTSBURGH, PA 15212-5858, USA  
Owner Classification: Corporation/Partnership  

Permit Contacts  
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PARK AVE E  
MASSENA, NY 13662  
Phone:3157644161  

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  
This project involves the splitting of the original Alcoa Facility into two separate companies. This permit is for the Alcoa USA Corp, a new entity, which will operate the primary and secondary aluminum production areas.  

Page 1 of 44
The two facilities will share some infrastructure, personnel and boundaries. Therefore, it was
determined that, even though the two facilities will have their own Title V permits, the facilities are still
considered one facility for the purposes of New Source Review and Title V applicability.

The project also involves the removal of four #6 fuel oil fired boilers, and the installation of two 12
MMbtu/hr natural gas fired boilers previously permitted with a State Facility permit. This was a minor
modification.

Updates were also included in the permit for the Primary and Secondary Aluminum production MACTs and
Part 212.

Attainment Status
ALCOA USA CORP 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.)

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Attainment Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter (PM)</td>
<td>ATTAINMENT</td>
</tr>
<tr>
<td>Particulate Matter&lt; 10µ in diameter (PM10)</td>
<td>ATTAINMENT</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO2)</td>
<td>ATTAINMENT</td>
</tr>
<tr>
<td>Ozone*</td>
<td>TRANSPORT REGION (NON-ATTAINMENT)</td>
</tr>
<tr>
<td>Oxides of Nitrogen (NOx)**</td>
<td>ATTAINMENT</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>ATTAINMENT</td>
</tr>
</tbody>
</table>

* 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:
This new corporation will now operate the primary and secondary aluminum production facilities that used
to be part of Alcoa Inc.

Alcoa USA Corp will operate an aluminum smelting facility. The smelter produces 130,000 metric tons of
molten aluminum per year. Electrical power is purchased through a long-term contract with the New York
Power Authority from the power dam. The plant consists of 198 pre-bake cells, comprising one of the
largest and most automated smelting potlines in the industry. Here, 800,000 pounds of molten aluminum is
produced daily.

Our state of the art fume treatment systems scrub emissions from our smelting process to protect the air

Start-up: 1902
Production: molten metal, sow, rod, billet, cold finished and extruded rod and bar

Number of employees: 700

Production capacity: 800,000 pounds/ day of molten aluminum
Smelting–In the Massena West plant, 198 pre-bake cells comprise one of the largest and most automated smelting potlines in the industry. Here, 800,000 pounds of molten aluminum produced daily.

The three potlines at Massena East were closed as of March 2014, and the 500 Soderberg pots at that location were decommissioned.

Ingot–Molten aluminum from Massena’s West Smelting Plant is mixed with alloying elements and cast into round ingot in Massena’s Ingot Plant. About 60 different alloys are produced for further fabrication into extruded and cold finished rod and bar, and for forging into car and truck wheels at Alcoa’s Cleveland Works.
The Ingot Plant houses a continuous rod casting and rolling facility. This state-of-the-art production unit takes molten aluminum and, in one continuous process, produces coiled rod ready for customer shipment.

**Permit Structure and Description of Operations**

The Title V permit for ALCOA USA CORP 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.

ALCOA USA CORP is defined by the following emission unit(s):

**Emission unit C00001** - Chip dryer #1 with associated control equipment (cyclone and afterburner) and chip melter #1.

**Emission unit C00001** is associated with the following emission points (EP):

- I0029, I0030

  Process: **CD1 CHIP DRYER #1 DRIES ALUMINUM MACHINING CHIPS WITH HEATED AIR.**
  
  Process: **CM1 CHIP MELTER #1 MELTS CLEAN ALUMINUM MACHINING CHIPS.**

**Emission unit C00002** - Chip dryer #2 with associated control equipment (cyclone and afterburner) and chip melter #2.
Emission unit C00002 is associated with the following emission points (EP):
I0044, I0045
Process: CD2 CHIP DRYER #2 DRIES ALUMINUM MACHINING CHIPS HEATED WITH AIR.
Process: CM2 CHIP MELTER #2 MELTS CLEAN ALUMINUM MACHINING CHIPS.

Emission unit D00001 - Miscellaneous point sources.

Emission unit D00001 is associated with the following emission points (EP):
I0042
Process: CCT EMULSIFIED OIL AND WATER SYSTEM FOR THE CONTINUOUS CASTER.
Process: SKD FUGITIVES FROM SKIM AND DROSS AREA USED FOR PASSIVE COOLING OF SKIM AND DROSS.

Emission unit M00001 - Aluminum melting and holding furnaces. All furnaces are reverberatory, center charged. Furnaces charge molten aluminum, uniform, non-uniform and clean scrap, alloying ingredients and salt. No gas fluxing is done in any furnace.

Emission unit M00001 is associated with the following emission points (EP):
Process: MHS Molten aluminum melting and holding furnaces which are permitted to use salt fluxes. All furnaces are reverberatory, center charged. No gas fluxing is done in any furnace.

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 S00001 - One potline of electrolytic cells and associated control equipment. This potline is categorized as a center work prebake-1 (CWPB-1) as described in the definitions section of EPA's Primary Aluminum NESHAP regulations.

Emission unit S00001 is associated with the following emission points (EP):
PRV01, SA398
Process: POT ELECTROLYTIC REDUCTION OF ALUMINA INTO ALUMINUM. THIS POTLINE IS CATEGORIZED AS A CENTER WORK PREBAKE-1 (CWPB-1) AS DESCRIBED IN THE DEFINITIONS SECTION OF EPA’S PRIMARY ALUMINUM MACT REGULATIONS.

Emission unit S00003 - Paste production plant and associated coke injection scrubber.

Emission unit S00003 is associated with the following emission points (EP):
Emission unit S00004 - Material handling operations for alumina, carbon, and other miscellaneous solid materials. Each are controlled by a fabric filter to limit particulate emissions to the environment.

Emission unit S00004 is associated with the following emission points (EP): S0015, S0016, S0039, S0041, S0043, S0046, S0047, S0048, S0049, S0050, S0051, S0052, S0053, S0060, S0061, S0086, S0090, S0092, S0093, S0095, S0102, S023B, S23AA, S23AC.

Process: M01 BUILDING 332 DUST COLLECTION EQUIPMENT INCLUDES A STUB HOLE CLEANER WHICH USES AIR TO BLOW COKE DUST OUT OF STUB HOLES. PROCESS M01 ALSO INCLUDES TWO SMALL INDUCTION FURNACES USED FOR MELTING IRON.

Process: M03 PACKED COKE DRILLED OUT OF ANODE STUB HOLES.

Process: M04 DRY SCRAPER ALUMINUM LOADING AND UNLOADING AREA.

Process: M05 ROUGH CLEANING OF SPENT ANODES.

Process: M06 BATH HANDLING, CRUSHING AND CRUCIBLE DIGGING OPERATIONS.

Process: M07 TRANSFER POINT IN BUILDING 441 FOR TWO ALUMINA BELT CONVEYORS.

Process: M08 BUTT CRUSHING.

Process: M09 ANODE BUTT STORAGE, STORAGE FILLING, AGGREGATE BLENDING, COKE CRUSHING, STORAGE DISCHARGE, BALL MILL CLASSIFYING, AND INTERMEDIATE CLASSIFYING.

Process: M10 STORAGE TANK 440A AND 440B FLUIDIZER FOR ALUMINA.

Process: M11 TRACK HOPPER DUST COLLECTOR FOR ALUMINA UNLOADING AND ALUMINA AIRLIFT TOWER DUST COLLECTOR.

Process: M12 TRANSFER POINT 441C SERVES ST441C AND THE TRANSFER OF ALUMINA TO ST441B.

Process: M13 ALUMINA TRANSFER POINT 446A FROM REACTORS TO STORAGE TANKS.

Process: M14 ALUMINA TRANSFER POINT 446B FROM REACTORS TO STORAGE TANKS.

Process: M15

Process: M16 POT DIGGING AND SPENT POTLINING HANDLING OPERATIONS CONTROLLED BY A FABRIC FILTER TO LIMIT PARTICULATE EMISSIONS TO THE ENVIRONMENT.

Emission unit S00005 - Coal tar pitch unloading and storage. Includes fugitives from the pitch unloading
pumps and pitch recirculating pumps.

Emission unit S00005 is associated with the following emission points (EP):
S0073, S0077, S0088, S0089, S073A

Process: PST COAL TAR PITCH INCLUDES A SINGLE EMISSION POINT (EP) SERVING EACH OF TWO COAL TAR PITCH STORAGE TANKS, AND FUGITIVES INCLUDING BUT NOT LIMITED TO THOSE ASSOCIATED WITH THE PITCH RECIRCULATING PUMPS LOCATED IN BUILDING 352F.

Process: PUN COAL TAR PITCH UNLOADING INCLUDES A SINGLE EMISSION POINT (EP) SERVING EACH OF TWO RAILCAR UNLOADING STATIONS, AND FUGITIVES INCLUDING BUT NOT LIMITED TO THOSE ASSOCIATED WITH THE PITCH UNLOADING PUMPS. SOME OF THESE FUGITIVES ARE EXHAUSTED THROUGH THE BU

Emission unit A00003 - This emission unit contains three processes: HM1, FBB and MH2.


Process MH2: Molten aluminum melting and holding furnaces which are permitted to use salt fluxes. All furnaces are reverberatory, center charged. No gas fluxing is done in any furnace.

Process FBB: In-line filterbox fluxing units use a mixture of argon and chlorine gas to purify molten aluminum as it is being cast into ingots or rod.

Emission unit A00003 is associated with the following emission points (EP):
I0047, I0048

Process: FBB In-line filterbox fluxing units use a mixture of argon and chlorine gas to purify molten aluminum as it is being cast into ingots or rod.

Process: HM1 One (1) homogenizer heat treat furnace. It uses multiple direct fire natural gas burners. Chemical additive prevents oxidation of surface of metal and produces incidental hydrogen fluoride emissions as a by-product.

Process: MH2 Molten aluminum melting and holding furnaces which are permitted to use salt fluxes. All furnaces are reverberatory, center charged. No gas fluxing is done in any furnace.

Emission unit M00002 - In-line filterbox fluxing units use a mixture of argon and chlorine gas to purify molten aluminum as it is being cast into ingots or rod. Typically there is one filterbox per furnace, and multiple furnaces/filterboxes serve a single casting complex. Within a casting complex, these filterboxes can be exhausted together, individually or not at all in the case of an inerted filterbox, however, only one filter box is fluxing at any time since there is only one casting apparatus per complex.

Emission unit M00002 is associated with the following emission points (EP):
I001E, I003E, I024E
Permit Review Report

New York State Department of Environmental Conservation

Permit ID: 6-4058-00178/00001
11/01/2016

Process: FBA IN-LINE FILTERBOX FLUXING UNITS USE A MIXTURE OF ARGON AND CHLORINE GAS TO PURIFY MOULTED ALUMINUM AS IT IS BEING CAST INTO INGOTS OR ROD. TYPICALLY THERE IS ONE FILTERBOX PER FURNACE, AND MULTIPLE FURNACES/FILTERBOXES SERVE AS A SINGLE CASTING COMPLEX. WITHIN A CASTING COMPLEX, THESE FILTERBOXES CAN BE EXHAUSTED TOGETHER, INDIVIDUALLY OR NOT AT ALL IN THE CASE OF AN INERTED FILTERBOX. HOWEVER, ONLY ONE FILTERBOX IS FLUXING AT ANY TIME SINCE THERE IS ONLY ONE CASTING APPARATUS PER COMPLEX.

Emission unit S00002 - Anode baking furnace and associated alumina injection dry scrubber.

Emission unit S00002 is associated with the following emission points (EP):
S0078
Process: BAK ANODE BAKING FURNACE AND ASSOCIATED ALUMINA INJECTION DRY SCRUBBER.

Emission unit S00006 - Smelting and anode plant fugitives excepting potline fugitives (the potline fugitives are regulated under Primary Aluminum NESHAP regulations).

Process: FA1 TOTAL SUSPENDED SOLID (I.E. PARTICULATE) FUGITIVES FROM COKE UNLOADING.

Process: FA2 TOTAL SUSPENDED SOLID (I.E. PARTICULATE) FUGITIVES FROM COKE AND HANDLING.

Process: FA3 TOTAL SUSPENDED SOLID (I.E. PARTICULATE) FUGITIVES FROM CLAMSHELL BUCKET OPERATIONS IN THE ANODE BAKING FURNACE ROOM.

Process: FAC WHEN SPENT ANODES ARE PLACED IN BUILDING 380 AND 376 TO COOL, THERE ARE FUGITIVE EMISSIONS FROM PASSIVE ANODE COOLING. SOME HYDROGEN FLUORIDE IS EMITTED AS A RESULT OF THE RESIDUAL BATH ON THE ANODES. EMISSIONS ARE INCLUDED ON THE ANNUAL EMISSIONS STATEMENT

Emission unit F00001 - Alcoa Fabricating and Extrusion (AFE) fugitives.

Process: FC1 FUGITIVES FROM THE ROD OILER ASSOCIATED WITH THE CONTINUOUS CASTER. VOC EMISSIONS WILL BE INCLUDED ON THE ANNUAL EMISSIONS STATEMENT.

IMPREGNATED IN GRAPHITE RINGS. EMISSIONS VENT INTO THE MILL AND ESTIMATED TO BE INSIGNIFICANT.

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.
New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 6-4058-00178/00001
11/01/2016

Emission unit A00001 is associated with the following emission points (EP):
I0026, I0043, I0046
Process: HMO TWO (2) HOMOGENIZING HEAT TREAT FURNACES. EACH USES MULTIPLE
DIRECT FIRE NATURAL GAS BURNERS. CHEMICAL ADDITIVE PREVENTS OXIDATION OF
SURFACE OF METAL AND PRODUCES INCIDENTAL HYDROGEN FLUORIDE EMISSIONS AS A
BY-PRODUCT.

Emission unit B00002 - Two (2) 12.533 MMBtu/hr natural gas fired package boilers sharing a common
stack and 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):
B001A
Process: BLR 2 natural gas package boilers sharing a common stack.

Title V/Major Source Status
ALCOA USA CORP is subject to Title V requirements. This determination is based on the following
information:
The facility is a major source of Fluorides, POM, CO, NOx, SO2, COS, GHG, Total Hap,
VOC, PM, PM-10, and Individual Haps.

Program Applicability
The following chart summarizes the applicability of ALCOA USA CORP with regards to the principal air
pollution regulatory programs:

<table>
<thead>
<tr>
<th>Regulatory Program</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSD</td>
<td>YES</td>
</tr>
<tr>
<td>NSR (non-attainment)</td>
<td>YES</td>
</tr>
<tr>
<td>NESHAP (40 CFR Part 61)</td>
<td>NO</td>
</tr>
<tr>
<td>NESHAP (MACT - 40 CFR Part 63)</td>
<td>YES</td>
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<tr>
<td>NSPS</td>
<td>YES</td>
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<tr>
<td>TITLE IV</td>
<td>NO</td>
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<td>TITLE V</td>
<td>YES</td>
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<tr>
<td>TITLE VI</td>
<td>NO</td>
</tr>
<tr>
<td>RACT</td>
<td>YES</td>
</tr>
<tr>
<td>SIP</td>
<td>YES</td>
</tr>
</tbody>
</table>

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 (CAA) 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 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.
New York State Department of Environmental Conservation
Permit Review Report
Permit ID: 6-4058-00178/00001
11/01/2016

<table>
<thead>
<tr>
<th>SIC Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>3334</td>
<td>PRIMARY ALUMINUM</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>SCC Code</th>
<th>Description</th>
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<td>1-02-006-02</td>
<td>EXTERNAL COMBUSTION BOILERS - INDUSTRIAL</td>
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<tr>
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<td>INDUSTRIAL BOILER - NATURAL GAS</td>
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<tr>
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<td>10-100 MMBtu/HR</td>
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<td>3-03-000-03</td>
<td>PRIMARY METAL PRODUCTION</td>
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<td>PRIMARY METAL PRODUCTION - ALUMINUM ORE</td>
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<td>(BAUXITE)</td>
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<td>Fine Ore Storage</td>
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<td>PRIMARY METAL PRODUCTION - ALUMINUM ORE</td>
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<td>(BAUXITE)</td>
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<td>LOADING AND UNLOADING</td>
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<td>Anode Baking Furnace</td>
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<td>Smelting Furnace/Crucible</td>
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**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 or 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.

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<th>Cas No.</th>
<th>Contaminant</th>
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2,3,4,7,8-
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051207-31-9
2,3,7,8-
TETRACHLORODIBENZOFURAN
001746-01-6
2,3,7,8-
TETRACHLORODIBENZOFURAN
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2-PENTANONE, 4-
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ANTIMONY
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BENZENE
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BENZENE, (1-
METHYLETHYL)
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BERYLLIUM
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CADMIUM
0NY750-00-0
CARBON
000630-08-0
CARBON
000463-58-1
CARBONYL
SULFIDE
007782-50-5
CHLORINE
007440-47-3
CHROMIUM
007440-48-4
COBALT
000057-12-5
CYANIDE
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DIMETHYL
KETONE
000111-42-2
ETHANOL, 2,2'-
IMINOBIS-
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ETHYLBENZENE
016984-48-8
FLUORIDE
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FLUORIDES
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HYDROCYANIC
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HYDROGEN
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MANGANESE
007439-97-6
MERCURY
000067-56-1
METHYL
ALCOHOL
000078-93-3
METHYL ETHYL
KETONE
000091-20-3
NAPHTHALENE
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 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 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:

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.

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.

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

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<th>Location</th>
<th>Regulation</th>
<th>Condition</th>
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Page 16 of 44
Powers and Duties of the Department with respect to air pollution control
Review of Major Stationary Sources and Major Modifications - Source Applicability
Review of Major Stationary Sources and Major Modifications - Source Applicability
Steam generators 10-100 million Btu per hour
Reporting and Recordkeeping Requirements.

ICI Boiler Major Source NESHAP - Good Air Pollution Control Practices

ICI Boiler Major Source NESHAP - Affirmative Defense

ICI Boiler Major Source NESHAP - Compliance Reports

ICI Boiler Major Source NESHAP - Recordkeeping

ICI Boiler Major Source NESHAP - Record Format

Primary Aluminum Reduction Plants NESHAP

Subpart LL - Incorporation by Reference

Emission Limits for Existing Sources - Total Fluoride Limit for Center-Worked Prebake One (CWPB1) Potlines

PFM Limits for CWPB1 potlines

PM Limits for CWPB1 potlines

Emission Limits for Existing Sources - Paste Production Plants

PM Limit for Paste
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<td>Mercury Limit for Anode Bake Furnaces</td>
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<td>Control requirements for Pitch Storage Tanks</td>
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<td>S-00001/-/POT</td>
<td>COS Limits for each Potline</td>
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<td>Performance Test Requirements - TF Emissions from Potlines</td>
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FACILITY 40CFR 63-LL.848(g) 49 For emission control devices
Emission Monitoring Requirements - visible emissions
S-00001/~/POT 40CFR 63-LL.848(h) 133 Emission Monitoring Requirements - corrective action
S-00001/~/POT 40CFR 63-LL.848(i) 134 Emission Monitoring Requirements - exceedances
S-00001/~/POT 40CFR 63-LL.848(j) 135 Emission Monitoring Requirements - weight of aluminum and green anodes
S-00001/~/POT 40CFR 63-LL.848(k) 136 Emission Monitoring Requirements - accuracy and calibration
FACILITY 40CFR 63-LL.849(a) 50, 51 Test Methods and Procedures - listing of reference methods
S-00001/~/POT 40CFR 63-LL.849(c) 137 Test Methods and Procedures - definition of potline
S-00001/~/POT 40CFR 63-LL.849(d) 138 Test Methods and Procedures - potline manifolds for Method 14
FACILITY 40CFR 63-LL.850(b) 53 Test Methods and Procedures - alternative test methods for TF or POM emissions
FACILITY 40CFR 63-LL.850(c) 54 Notification, Reporting, and Recordkeeping Requirements - performance test reports
FACILITY 40CFR 63-LL.850(d) 55 Notification, Reporting, and Recordkeeping Requirements - excess emissions report
FACILITY 40CFR 63-LL.850(e) 56 Recordkeeping Requirements
FACILITY 40CFR 63-RRR.1500(b) 56 Applicability
FACILITY 40CFR 63-RRR.1501 57 Compliance Dates
FACILITY 40CFR 63-RRR.1505(c)(1) 58 Thermal Chip Dryer Emission Standards - THC
FACILITY 40CFR 63-RRR.1505(c)(2) 59 Thermal Chip Dryer Emission Standards - D/F
FACILITY 40CFR 63-RRR.1505(1) 60, 61, 62, 63 Group 1 Furnace Emission Standards
M-00001/~/MHS/M0031 40CFR 63-RRR.1505(1) 113, 114, 115 Group 1 Furnace Emission Standards
FACILITY 40CFR 63-RRR.1505(j)(1) 64 Emission Standards - In-line Fluxer
FACILITY 40CFR 63-RRR.1505(j)(2) 65 Emission Standards - In-line Fluxer
FACILITY 40CFR 63-RRR.1505(j)(4) 66 Emission Standards - In-line Fluxer
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<td>A-00003/-/MH2</td>
<td>63-RRR.1511(g)</td>
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M-00002  40CFR 63-RRR.1512(o)  117 Measurement. Performance test/compliance demonstration requirements and procedures - Flux injection rate

A-00003/-/FBB  40CFR 63-RRR.1512(z)  91 Performance test/continuous compliance requirements - labeling requirements

C-00001  40CFR 63-RRR.1513(d)  102 Equations for determining compliance - conversion of D/F measurements to TEQ units

A-00003/-/FBB  40CFR 63-RRR.1513(e)  92, 93 Equations for Determining Compliance - Secondary Aluminum Processing Unit

FACILITY  40CFR 63-RRR.1515  80 Notifications

FACILITY  40CFR 63-RRR.1515(b)  81 Notifications - Notification of Compliance Status Report

FACILITY  40CFR 63-RRR.1516  82 Secondary Aluminum MACT Reports

FACILITY  40CFR 63-RRR.1517  83 Secondary Aluminum MACT Records

FACILITY  40CFR 63-ZZZZ  84 Reciprocating Internal Combustion Engine (RICE) NESHAP COMPLIANCE ASSURANCE MONITORING

FACILITY  40CFR 64  85 Chemical accident prevention provisions

FACILITY  40CFR 68  19 Protection of Stratospheric Ozone - recycling and emissions reduction

FACILITY  40CFR 82-F  20 Reciprocating Internal Combustion Engine (RICE) NESHAP COMPLIANCE ASSURANCE MONITORING

FACILITY  6NYCRR 200.6  1 Acceptable ambient air quality.

FACILITY  6NYCRR 200.7  10 Maintenance of equipment.

FACILITY  6NYCRR 201-1.4  158 Unavoidable noncompliance and violations

FACILITY  6NYCRR 201-1.7  11 Recycling and Salvage Prohibition of reintroduction of collected contaminants to the air

FACILITY  6NYCRR 201-1.8  12 Exempt Activities - Proof of eligibility

FACILITY  6NYCRR 201-3.2(a)  13 Trivial Activities - proof of eligibility

FACILITY  6NYCRR 201-3.3(a)  14 Title V Permits and the Associated Permit Conditions

FACILITY  6NYCRR 201-6  21, 86, 87 General Conditions - Requirement to

FACILITY  6NYCRR 201-6.4(a)(4)  15
| FACILITY | 6NYCRR 201-6.4(a)(7) | 2 | Provide Information |
| FACILITY | 6NYCRR 201-6.4(a)(8) | 16 | General Conditions - Fees |
| FACILITY | 6NYCRR 201-6.4(c) | 3 | General Conditions - Right to Inspect |
| FACILITY | 6NYCRR 201-6.4(c)(2) | 4 | Recordkeeping and Reporting of Compliance Monitoring |
| FACILITY | 6NYCRR 201-6.4(c)(3)(i) | 5 | Records of Monitoring, Sampling and Measurement Reporting Requirements - Deviations and Noncompliance |
| FACILITY | 6NYCRR 201-6.4(d)(4) | 22 | Compliance Schedules - Progress Reports Compliance Certification |
| FACILITY | 6NYCRR 201-6.4(e) | 6 | Off Permit Changes |
| FACILITY | 6NYCRR 201-6.4(f)(6) | 17 | Permit Shield |
| FACILITY | 6NYCRR 201-7 | 88 | Federally Enforceable Emissions Caps |
| FACILITY | 6NYCRR 202-1.1 | 18 | Required emissions tests. |
| FACILITY | 6NYCRR 202-2.1 | 7 | Emission Statements - Applicability |
| FACILITY | 6NYCRR 202-2.5 | 8 | Emission Statements - record keeping requirements. |
| FACILITY | 6NYCRR 209 | 159 | Primary Aluminum Reduction Plants |
| FACILITY | 6NYCRR 209.4 | 160 | Emissions other than total fluorides. |
| FACILITY | 6NYCRR 211.1 | 24 | General Prohibitions - air pollution prohibited |
| FACILITY | 6NYCRR 212-1.1(a)(1) | 25 | General Provisions - Applicability |
| M-00001 | 6NYCRR 212-1.5(e)(2) | 111 | Demonstrating compliance for Part 212 through the federal NESHAP program |
| FACILITY | 6NYCRR 212-1.6(a) | 26 | Limiting of Opacity |
| FACILITY | 6NYCRR 212-2.3(a) | 27 | Criteria air contaminants applicable to Table 3 |
| C-00001/I0029/CD1 | 6NYCRR 212-2.3(a) | 104, 105 | Criteria air contaminants applicable to Table 3 |
| C-00002 | 6NYCRR 212-2.3(a) | 107 | Criteria air contaminants applicable to Table 3 |
| C-00002/-/CD2 | 6NYCRR 212-2.3(a) | 109, 110 | Criteria air contaminants applicable to Table 3 |
| M-00002 | 6NYCRR 212-2.3(a) | 116 | Criteria air contaminants applicable to Table 3 |
| FACILITY | 6NYCRR 212-2.3(b) | 161, 162, 163, 164, 165 | Non-Criteria air contaminants subject to Table 4 |
| C-00001/-/CD1 | 6NYCRR 212-2.3(b) | 166 | Non-Criteria air contaminants subject to Table 4 |
| FACILITY | 6NYCRR | 212–2.3(b) | Table 4 Non-Criteria air contaminants subject
| S-00001/-/POT | 6NYCRR | 212–2.5(b) | Table 4 Non-Criteria air contaminants subject
| FACILITY | 6NYCRR | 212–2.4(b) | Control of Particulate from New and Modified Process Emission Sources
| S-00002/S0078/BAK/SS078 | 6NYCRR | 212–3.1(c)(1) | Table 6 Permissible Emission Rate
| FACILITY | 6NYCRR | 212–3.1(c)(1) | Required Compliance Plans for applicable 212–3 emission sources
| S-00002/S0078/BAK/SS078 | 6NYCRR | 212–3.1(c)(1) | Required Compliance Plans for applicable 212–3 emission sources
| FACILITY | 6NYCRR | 212–3.1(c)(1) | Required Compliance Plans for applicable 212–3 emission sources
| FACILITY | 6NYCRR | 212–3.1(c)(3) | RACT compliance plans for NOx emission points
| S-00001/I0030/CM1/C0030 | 6NYCRR | 212–3.1(c)(3) | RACT compliance plans for NOx emission points
| S-00002/S0078/BAK/SS078 | 6NYCRR | 212–3.1(c)(3) | RACT compliance plans for NOx emission points
| FACILITY | 6NYCRR | 215.2 | Open Fires - Prohibitions SOLVENT METAL CLEANING PROCESSES
| P-00001 | 6NYCRR | 226 | Small boilers, small combustion turbines, and small stationary internal combustion engines.
| FACILITY | 6NYCRR | 227–2.4(d) | Reasonable Possibility requirements for insignificant mods - less than 50% with excluded emissions
| M-00001/-/MHS/M0031 | 6NYCRR | 231–11.2(b) | Exemptions
| FACILITY | 6NYCRR | 231–2.2(d)(3) | Summary of applicability
| FACILITY | 6NYCRR | 231–3.2 | BART Emission Limitation
| FACILITY | 6NYCRR | 249.3(a) | Requirements for Sources
| S-00001/-/POT | 6NYCRR | 249.3(a) | BART Emission Limitation
| FACILITY | 6NYCRR | 257–8 | Air Quality Standards

Table 4
Non-Criteria air contaminants subject
Table 4 Non-Criteria air contaminants subject
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 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

Page 24 of 44
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)
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 (g)
Permit Exclusion Provisions - specifies those actions, such as administrative orders, suits, claims for natural resource damages, etc that are not affected by the federally enforceable portion of the permit, unless they are specifically addressed by it.

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.

Facility Specific Requirements
In addition to Title V, ALCOA USA CORP has been determined to be subject to the following regulations:
40 CFR 52.21 (i) (1)
Any stationary source or modification to which the requirements of this regulation apply cannot begin construction without a valid permit.

40 CFR 60.40c
This regulation requires the source owner or operator to comply with the applicable General Provisions of
40 CFR 60 Subpart Dc. The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements.

40 CFR 60.48c
This regulation requires that the facility keep reports and records in accordance with the provisions of this section 40 CFR 60-Dc.48c.

40 CFR 63.1500 (b)
This condition lists the pieces of equipment that will have requirements within this regulation for facilities that emit more than 25 tons per year of hazardous air pollutants (HAPs) or 10 tons per year of a single HAP.

40 CFR 63.1501
This section gives the compliance dates for the subpart.

40 CFR 63.1505 (c) (1)
This condition sets the emission limits of Total HydroCarbons (THC) for chip dryers to 0.40 kg of THC as propane, per Megagram (0.80 lb of THC/per ton) of feed/charge.

40 CFR 63.1505 (c) (2)
This condition sets the emission limits of Dioxin and Furan Toxic Equivalent (TEQ) for chip dryers to 2.50 micrograms of D/F TEQ per Mg (3.5x10^-5 grams per ton) of feed/charge.

40 CFR 63.1505 (i)
This sets the emission limits from a group 1 furnace. These limits are the standard against which the calculated emissions emitted from the Secondary Aluminum Processing Unit (SAPU) are held to.

40 CFR 63.1505 (j) (1)
This condition states a facility, with an in-line fluxer using a flux that produces hazardous air pollutant emissions, shall not emit more than 0.04 pounds of Hydrogen Chloride (HCl) per ton of aluminum fed to the furnace.

40 CFR 63.1505 (j) (2)
This condition states a facility with an in-line fluxer using a flux that produces hazardous air pollutants, shall not emit more than 0.01 pounds of Particulate Matter (PM) per ton of aluminum fed to the furnace.
40 CFR 63.1505 (k) (1)
This condition sets the emission limit of Particulates from a secondary aluminum processing unit (SAPU). The calculation allows the emissions to be averaged across the equipment included in the SAPU.

40 CFR 63.1505 (k) (2)
This condition sets the emission limit of Hydrogen Chloride (HCl) from a secondary aluminum processing unit (SAPU). The calculation allows the emissions to be averaged across the equipment included in the SAPU.

40 CFR 63.1505 (k) (3)
This condition sets the emission limit of Dioxins and Furans (D/F) from a secondary aluminum processing unit (SAPU). The calculation allows the emissions to be averaged across the equipment included in the SAPU.

40 CFR 63.1505 (k) (4)
This allows the facility to show the SAPU is in compliance by showing each unit is in compliance with the individual unit emission limits.

40 CFR 63.1510 (b)
This condition states a facility must have a written plan to operate and maintain all the equipment properly and it must be approved by the department.

40 CFR 63.1510 (s)
This condition lists some of the information that can, and cannot, be included in the operation and maintenance plan for a Secondary Aluminum Processing Unit (SAPU).

40 CFR 63.1511 (a)
This condition states the facility must show the Department how they are going to test the equipment before they do it.

40 CFR 63.1511 (b)
This condition tells how the facility must do the initial pollutant testing on the exhaust from the equipment.

40 CFR 63.1511 (c)
This condition states which test method must be used for each pollutant being tested.

40 CFR 63.1511 (e)
This condition states every facility emitting more than 25 tons per year of hazardous air pollutants (HAPs)
or 10 tons per year of a single HAP must test its equipment every 5 years.

40 CFR 63.1511 (f)
This condition states if a facility has identical equipment that is operated the same way, then only one has to be tested. That data can be used to represent the emissions from each similar unit.

40 CFR 63.1511 (g)
This condition states minimum and/or maximum operation parameters must be established using information from the performance stack tests.

40 CFR 63.1512 (b)
This condition requires the testing of the thermal chip dryer for Dioxin/furan emissions using EPA method 23 while drying aluminum chips with no paint on them.

40 CFR 63.1512 (e)
This condition outlines the requirements for testing to show compliance with emission limits.

40 CFR 63.1512 (h) (2)
This condition allows the facility to assume all reactive flux is emitted as HCl. That way, emission testing for HCl is not required.

40 CFR 63.1512 (j)
This condition states each furnace that melts scrap aluminum mixed with foreign materials, or clean aluminum with reactive fluxing, must test for Particulate Matter (PM) and Hydrogen Chloride (HCl), and Dioxins and Furans (D/F). A furnace that melts only clean aluminum and in-line fluxers, must test for PM and HCl.

40 CFR 63.1512 (k)
This condition states the weight measurement of the amount of aluminum melted in the furnace or the amount of aluminum produced per fluxer can be used to show compliance with emission limits.

40 CFR 63.1512 (o)
This section states the procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

40 CFR 63.1512 (r)

40 CFR 63.1513 (d)
This condition refers to the material referenced in 1502(a) of this regulation. The referenced materials gives the owner/operator the procedures and equation to determine TEQ units from direct Dioxin and
Furan Measurements.

40 CFR 63.1513 (e)  
This condition states the facility must use these equations to determine if a secondary aluminum processing unit (SAPU) is in compliance with the emission limits for Particulate Matter, Hydrogen Chloride, and Dioxins/Furans. Or, a facility can show the SAPU is in compliance with the emission limits for new units.

40 CFR 63.1515  
Conditions under this regulation incorporate the requirements for various notifications to be submitted by the permittee for the Secondary Aluminum Production MACT.

40 CFR 63.1515 (b)  
This condition requires the owner/operator to submit a compliance status report to the Department. It outlines all the information to be submitted in the report to show compliance.

40 CFR 63.1516  
Conditions under this section of the Secondary Aluminum MACT outline the reports required from subject facilities.

40 CFR 63.1517  
Conditions under this section of the secondary aluminum MACT outline the records that must be kept by subject facilities.

40 CFR 63.7500 (a) (1)  
These conditions state what emission limits and management practices affected sources with which the owner or operator must comply

40 CFR 63.7500 (a) (3)  
This condition states that the owner or operator must operate and maintain the affected source consistent with good air control practices

40 CFR 63.7501 (a)  
This condition states the procedure that an owner or operator of an industrial, commercial, or institutional boiler may use an affirmative defense of excess emissions

40 CFR 63.7550 (c)  
This condition states the requirements for the compliance report
40 CFR 63.7555 (a)
This condition states what records must be kept

40 CFR 63.7560
This condition states in what form the records must be kept

40 CFR 63.841
This condition lists the material used in the regulation that has been incorporated by reference.

40 CFR 63.843 (a) (1) (i)
This condition states a Center Worked Pre-Bake (CWPB1) potline cannot release more than 1.9 pounds of fluorides per ton of aluminum produced.

40 CFR 63.843 (a) (2) (iv)

40 CFR 63.843 (a) (3) (i)

40 CFR 63.843 (b)
This condition establishes that a dry coke scrubber must be used for paste production plants to control Polycyclic Organic Matter emissions and to what standards the control system should be designed and operated to.

40 CFR 63.843 (b) (4)

40 CFR 63.843 (c) (1)
This condition states the total fluoride emissions from an anode bake furnace cannot be more than 0.20 pounds per ton of unbaked anode going into the furnace.

40 CFR 63.843 (c) (2)
This condition states the release of polycyclic organic matter (POM) cannot be more than 0.18 pounds per ton of unbaked anode going into the bake furnace.
This condition establishes how a facility will measure and calculate Total Fluoride (TF) emissions from the potline(s).

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.

This condition states the facility must test the exhaust gas coming out of the device used to reduce pollutant emissions from the anode bake furnace(s) for polycyclic organic matter (POM) and for Total Fluorides (TF). There must be three or more tests per year, and the results will be averaged together.

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

This condition states that after testing the exhaust gas of the anode bake furnace, this equation must be used to compute the amount of Total Fluoride emitted per amount of unbaked anode.
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 (e) (7)
This condition states the facility must determine the rate, in pounds per hour, the unbaked (green) anode is put into the bake furnace during the calendar month the performance tests were done. This information will be used along with the tests of the exhaust gas to determine if the facility is 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) (2)
This condition requires the facility to determine the proper operating parameters on the control device for the paste production plant to ensure proper control of Polycyclic Organic Matter.

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 (c)
This condition states the facility must test the exhaust gas of each anode bake furnace for Polycyclic Organic Matter and Total Fluorides at least three times per year to show compliance with the emission limit. The average of all tests shall be used to determine compliance.

40 CFR 63.848 (f)

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 63.849 (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.

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

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)
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 40 CFR 63. 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.

40 CFR Part 63, Subpart LL

40 CFR Part 63, Subpart ZZZZ

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.

6 NYCRR 209.4

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 212-1.5 (e) (2)
A process emission source subject to the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) satisfies the requirements of Part 212 for the respective air contaminant regulated by the Federal standard.

However, NESHAPs regulating High Toxicity Air Contaminants (HTACs) must provide evidence that the maximum offsite ambient air concentration is less than the AGC/SGC and that emissions are less than the PB trigger for the respective air contaminant.

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.

6 NYCRR 212-2.3 (a)
Table 3 of 212-2.3 describes the reduction in emissions required for a criteria air contaminant based on its uncontrolled emission rate. The uncontrolled emission rate in conjunction with the assigned environmental rating determines the degree of controlled applied.

6 NYCRR 212-2.3 (b)
Table 4 of 212-2.3 describes the reduction in emissions required for a non-criteria air contaminant based on its uncontrolled emission rate. The uncontrolled emission rate in conjunction with the assigned environmental rating determines the degree of controlled applied.

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 212-2.5 (b)
This provision determines the allowable emission rate for particulate from specific source categories listed in Table 5. The provision states particulate emissions from any process emission source, which received an Environmental Rating of B or C, and where the determination of the permissible emission rate using process weight for a specific source category emitting solid particulate is based upon Table 5 and Table 6 of Subdivisions 212-2.5.

6 NYCRR 212-3.1 (c) (1)

6 NYCRR 212-3.1 (c) (3)
This provision states that owners and/or operators of emission points subject to Part 212-3 must submit a compliance plan to the department by October 20, 1994 or upon startup. The RACT compliance plan for NOx emission points must include technically feasible control strategies to minimize NOx formation and emission control equipment alternatives. These process specific RACT demonstrations that are acceptable to the department will be submitted to the United States Environmental Protection Agency for approval as a revision to the State Implementation Plan by the department.

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 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 231-2.2 (d) (3)
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 the New York City metropolitan area, carbon monoxide is also a non-attainment contaminant. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

The purpose of Section 231-2.2 is to define what new or modified facilities are subject to the requirements set forth in the other sections of the rule. The specific applicability exemptions to Subpart 231-2 are set forth in subsection (d).

This section lists the applicability of facilities to each Subpart of 231.

6 NYCRR 249.3 (a)

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

6 NYCRR Subpart 257-8

Non Applicability Analysis
List of non-applicable rules and regulations:

<table>
<thead>
<tr>
<th>Location</th>
<th>Regulation</th>
<th>Short Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACILITY</td>
<td>6 NYCRR 212-2.4 (b)</td>
<td>Control of Particulate from New and Modified Process Emission Sources</td>
</tr>
</tbody>
</table>
New York State Department of Environmental Conservation
Permit Review Report

Permit ID: 6-4058-00178/00001
11/01/2016

<table>
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<tr>
<th>Code</th>
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<tr>
<td>A-00003/-/MH2</td>
<td>6 NYCRR 212-2.4 (b) Control of Particulate from New and Modified Process Emission Sources</td>
<td>Reason: This emission process will be complying with the particulate matter (PM) emission limits contained in the Secondary Aluminum Production NESHAP (40 CFR 63 Subpart RRR) and thus is exempt from the PM limits codified at 6 NYCRR Part 212.4(c) as allowed for at 6 NYCRR Part 212.5(d).</td>
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<tr>
<td>M-00001</td>
<td>6 NYCRR 212-2.4 (b) Control of Particulate from New and Modified Process Emission Sources</td>
<td>Reason: This emission unit will be complying with the particulate matter (PM) emission limits contained in the Secondary Aluminum Production NESHAP (40 CFR 63 Subpart RRR) and thus is exempt from the PM limits codified at 6 NYCRR Part 212.4(c) as allowed for at 6 NYCRR Part 212.5(d).</td>
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<tr>
<td>M-00002</td>
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<td>Reason: This emission unit will be complying with the particulate matter (PM) emission limits contained in the Secondary Aluminum Production NESHAP (40 CFR 63 Subpart RRR) and thus is exempt from the PM limits codified at 6 NYCRR Part 212.4(c) as allowed for at 6 NYCRR Part 212.5(d).</td>
</tr>
<tr>
<td>FACILITY</td>
<td>6 NYCRR 212-3.1 (f) Owners or operators of applicable emission points commences construction after August 15, 1994</td>
<td>Reason: Emission Unit: F00001 and S00003 Emission Point: S0100 Process: GMS Source: SS100 The emissions of volatile organic compounds (VOC) from the Greenmill Petroleum Coke Dry Scrubber (Emission Unit - S-00003; Emission Source - SS100) are less than 3.0 lb/hr. Therefore the reasonably available control technology (RACT) requirements for VOC contained in 6 NYCRR Part 212.10(f) do not apply to this emission source. Emissions of polycyclic organic matter (POM) are not considered VOC for the purposes of this RACT determination.</td>
</tr>
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| FACILITY     | 6 NYCRR 231-2.2 Applicability               | Reason: Emission Unit: F00001 and S00003 Emission Point: S0100 Process: GMS Source: SS100 The emissions of volatile organic compounds (VOC) from the Greenmill Petroleum Coke Dry Scrubber (Emission Unit - S-00003; Emission Source - SS100) are less than 3.0 lb/hr. Therefore the reasonably available control technology (RACT) requirements for VOC contained in 6 NYCRR Part 212.10(f) do not apply to this emission source. Emissions of polycyclic organic matter (POM) are not considered VOC for the purposes of this RACT determination.
NOTE: Non-applicability determinations are cited as a permit condition under 6 NYCRR Part 201-6.4(g). This information is optional and provided only if the applicant is seeking to obtain formal confirmation, within an issued Title V permit, that specified activities are not subject to the listed federal applicable or state only requirement. The applicant is seeking to obtain verification that a requirement does not apply for the stated reason(s) and the Department has agreed to include the non-applicability determination in the issued Title V permit which in turn provides a shield against any potential enforcement action.

### Compliance Certification

Summary of monitoring activities at ALCOA USA CORP:

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<tr>
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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 operating 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.

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.

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 limits 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.