



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

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: ROBERT A JACOBS
Address: NYSDEC - REGION 6
317 WASHINGTON ST
WATERTOWN, NY 13601
Phone:3157852513

Air Permitting Contact:
Name: ROBERT J LENNEY
Address: ALCOA USA CORP
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.



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

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

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.)

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:

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



New York State Department of Environmental Conservation
Permit Review Report

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

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.



New York State Department of Environmental Conservation
Permit Review Report

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

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):
I001A, I001B, I001C, I001D, I0031, I0034, I0035, I003A, I003C, I024D, I024F

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):



New York State Department of Environmental Conservation
Permit Review Report

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

S0100, S0101

Process: ANC W354 Anode cooling tower

Process: GMS PASTE PRODUCTION PLANT AND ASSOCIATED COKE INJECTION SCRUBBER.

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 SCRUBBER 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



New York State Department of Environmental Conservation
Permit Review Report

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

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 HM1: 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.

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 filter box 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



New York State Department of Environmental Conservation
Permit Review Report

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 MOULTEN 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, NO_x, 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:

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

NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52, 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



New York State Department of Environmental Conservation
Permit Review Report

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

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 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

SIC Code	Description
3334	PRIMARY ALUMINUM

SCC Codes

SCC or Source Classification Code is a code developed and used" by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information.Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

SCC Code	Description
1-02-006-02	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - NATURAL GAS 10-100 MMBtu/Hr
3-03-000-03	PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (BAUXITE) Fine Ore Storage
3-03-000-04	PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (BAUXITE)
3-03-001-01	LOADING AND UNLOADING PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-03-001-04	Prebaked Reduction Cell 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)
3-03-001-11	Anode Baking Furnace PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-03-001-99	Anode Baking: Fugitive Emissions PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-04-001-02	NOT CLASSIFIED ** SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM
3-04-001-03	Smelting Furnace/Crucible SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM
3-04-001-06	Smelting Furnace/Reverberatory SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM
3-04-001-09	Degassing SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM
3-04-001-12	Burning/Drying SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM
3-04-001-99	Annealing Furnace SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Other Not Classified



New York State Department of Environmental Conservation
Permit Review Report

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

4-01-002-51

ORGANIC SOLVENT EVAPORATION
 ORGANIC SOLVENT EVAPORATION - DEGREASING
 STODDARD (PETROLEUM SOLVENT) - 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
003268-87-9	1,2,3,4,6,7,8,9-OCTACHLORODIBENZODIOXIN				
035822-46-9	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN				
067562-39-4	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN				
055673-89-7	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN				
039227-28-6	1,2,3,4,7,8-HEXACHLORODIBENZO[B,E][1,4]DIOXIN				
070648-26-9	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN				
057117-44-9	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN				
057653-85-7	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN				
072918-21-9	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN				
019408-74-3	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN				
057117-41-6	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN				



New York State Department of Environmental Conservation
Permit Review Report

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

040321-76-4	IBENZOFURAN 1,2,3,7,8- PENTACHLOROD IBENZO-P- DIOXIN
000107-21-1	1,2-ETHANEDIOL
060851-34-5	2,3,4,6,7,8- HEXACHLORODI BENZOFURAN
057117-31-4	2,3,4,7,8- PENTACHLOROD IBENZOFURAN
051207-31-9	2,3,7,8- TETRACHLOROD IBENZOFURAN
001746-01-6	2,3,7,8- TETRACHLOROD IBENZO-P- DIOXIN
000108-10-1	2-PENTANONE, 4- METHYL
000075-07-0	ACETALDEHYDE
000107-02-8	ACROLEIN
007664-41-7	AMMONIA
007440-36-0	ANTIMONY
007440-38-2	ARSENIC
000071-43-2	BENZENE
000098-82-8	BENZENE, (1- METHYLETHYL)
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
000067-64-1	DIMETHYL KETONE
000111-42-2	ETHANOL, 2,2'- IMINOBIS-
000100-41-4	ETHYLBENZENE
016984-48-8	FLUORIDE
068188-85-2	FLUORIDES
000050-00-0	FORMALDEHYDE
000110-54-3	HEXANE
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
000067-56-1	METHYL ALCOHOL
000078-93-3	METHYL ETHYL KETONE
000091-20-3	NAPHTHALENE



New York State Department of Environmental Conservation
Permit Review Report

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

0NY059-28-0	NICKEL (NI 059)
039001-02-0	OCTACHLORODI BENZOFURANS, TOTAL
0NY090-00-0	OIL MIST
0NY210-00-0	OXIDES OF NITROGEN
0NY075-00-0	PARTICULATES
000108-95-2	PHENOL
0NY075-02-5	PM 2.5
0NY075-00-5	PM-10
130498-29-2	POLYCYCLIC AROMATIC HYDROCARBON S
0NY505-00-0	POLYCYCLIC ORGANIC MATTER (POM)
007782-49-2	SELENIUM
007446-09-5	SULFUR DIOXIDE
000108-88-3	TOLUENE
0NY100-00-0	TOTAL HAP
0NY998-00-0	VOC
001330-20-7	XYLENE, M, O & P MIXT.

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.



New York State Department of Environmental Conservation
Permit Review Report

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

(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.

New York State Department of Environmental Conservation
Permit Review Report



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

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



New York State Department of Environmental Conservation
Permit Review Report

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

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

Location Facility/EU/EP/Process/ES	Regulation	Condition	Short Description
---------------------------------------	------------	-----------	-------------------



New York State Department of Environmental Conservation
Permit Review Report

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

FACILITY	ECL 19-0301	157	Powers and Duties of the Department with respect to air
FACILITY	40CFR 52-A.21(i)(1)	40	pollution control
C-00002	40CFR 52-A.21(i)(1)	108	Review of Major Stationary Sources and Major Modifications - Source Applicability
FACILITY	40CFR 60-Dc.40c	41	Review of Major Stationary Sources and Major Modifications - Source Applicability
B-00002/-/BLR	40CFR 60-Dc.48c	101	Steam generators 10-100 million Btu per hour
FACILITY	40CFR 63-A	42	Reporting and Recordkeeping Requirements.
B-00002	40CFR 63- DDDDD.7500(a)(95	Subpart A - General Provisions apply to all NESHAP affected sources
B-00002	40CFR 63- DDDDD.7500(a)(96	ICI Boiler Major Source NESHAP - Emission Limits and Management Practices
B-00002	40CFR 63- DDDDD.7501(a)	97	ICI Boiler Major Source NESHAP - Good Air Pollution Control Practices
B-00002	40CFR 63- DDDDD.7550(c)	98	ICI Boiler Major Source NESHAP - Affirmative Defense
B-00002	40CFR 63- DDDDD.7555(a)	99	ICI Boiler Major Source NESHAP - Compliance Reports
B-00002	40CFR 63-DDDDD.7560	100	ICI Boiler Major Source NESHAP - Recordkeeping
FACILITY	40CFR 63-LL	43, 44, 45	ICI Boiler Major Source NESHAP - Record Format
FACILITY	40CFR 63-LL.841	46	Primary Aluminum Reduction Plants NESHAP
S-00001/-/POT	40CFR 63- LL.843(a)(1)(i	122	Subpart LL - Incorporation by Reference
S-00001/-/POT	40CFR 63- LL.843(a)(2)(i	123	Emission Limits for Existing Sources - Total Fluoride Limit for Center-Worked Prebake One (CWPB1) Potlines
S-00001/-/POT	40CFR 63- LL.843(a)(3)(i	124	POM Limits for CWPB1 potlines
S-00003/-/GMS	40CFR 63-LL.843(b)	150	PM Limits for CWPB1 potlines
S-00003/-/GMS	40CFR 63-LL.843(b)(4)	151	Emission Limits for Existing Sources - Paste Production Plants
			PM Limit for Paste



New York State Department of Environmental Conservation
Permit Review Report

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

S-00002/-/BAK	40CFR 63-LL.843(c)(1)	139	Production Plants Emissions Limits for Existing Sources - Total Fluoride (TF) Limit for Anode Bake Furnaces
S-00002/-/BAK	40CFR 63-LL.843(c)(2)	140	Emission Limits for Existing Sources - POM Limit for Anode Bake Furnaces
S-00002/-/BAK	40CFR 63-LL.843(c)(3)	141	PM Limits for Anode Bake Furnaces
S-00002/-/BAK	40CFR 63-LL.843(c)(4)	142	Mercury Limit for Anode Bake Furnaces
S-00005/-/PST	40CFR 63-LL.843(d)	155	Control requirements for Pitch Storage Tanks
S-00001/-/POT FACILITY	40CFR 63-LL.843(e)	125	COS limits for each Potline
S-00001/-/POT	40CFR 63-LL.847(b)	47	Compliance Provisions - Test Plan
S-00001/-/POT	40CFR 63-LL.847(d)(1)	126	Performance Test Requirements - TF Emissions from Potlines
S-00001/-/POT	40CFR 63-LL.847(d)(3)	127	Performance Test Requirements - Previous Control Device Tests
S-00002/-/BAK	40CFR 63-LL.847(d)(4)	143	Performance Test Requirements - TF and POM Emissions from Anode Bake Furnaces
S-00001/-/POT	40CFR 63-LL.847(e)(1)	128	Compliance Provisions - Potline TF Equation
S-00002/-/BAK	40CFR 63-LL.847(e)(3)	144	Compliance Provisions - Anode Bake Furnace TF Equation
S-00001/-/POT	40CFR 63-LL.847(e)(5)	129	Compliance Provisions - Calculation of Emission Rates
S-00001/-/POT	40CFR 63-LL.847(e)(6)	130	Compliance Provisions - Calculation of Emission Rates
S-00002/-/BAK	40CFR 63-LL.847(e)(7)	145	Compliance Provisions - Emission rate calculations
S-00001/-/POT	40CFR 63-LL.847(h)(1)	131	Compliance provisions - selection of monitoring parameters
S-00002/-/BAK	40CFR 63-LL.847(h)(1)	146	Compliance provisions - selection of monitoring parameters
S-00003/-/GMS	40CFR 63-LL.847(h)(2)	152	Compliance provisions - selection of monitoring parameters
S-00001/-/POT	40CFR 63-LL.848(a)	132	Emission Monitoring Requirements - TF emissions from potlines
S-00002/-/BAK	40CFR 63-LL.848(c)	147	Emission Monitoring Requirements - TF and POM emissions from anode bake furnaces
FACILITY	40CFR 63-LL.848(f)	48	Monitoring parameters



New York State Department of Environmental Conservation
Permit Review Report

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

FACILITY	40CFR 63-LL.848(g)	49	for emission control devices
S-00001/-/POT	40CFR 63-LL.848(h)	133	Emission Monitoring Requirements - visible emissions
S-00001/-/POT	40CFR 63-LL.848(i)	134	Emission Monitoring Requirements - corrective action
S-00001/-/POT	40CFR 63-LL.848(j)	135	Emission Monitoring Requirements - exceedances
S-00001/-/POT	40CFR 63-LL.848(k)	136	Emission Monitoring Requirements - weight of aluminum and green anodes
FACILITY	40CFR 63-LL.849(a)	50, 51	Emission Monitoring Requirements - accuracy and calibration
S-00001/-/POT	40CFR 63-LL.849(c)	137	Test Methods and Procedures - listing of reference methods
S-00001/-/POT	40CFR 63-LL.849(d)	138	Test Methods and Procedures - definition of potline manifolds for Method 14
FACILITY	40CFR 63-LL.849(e)	52	Test Methods and Procedures - alternative test methods for TF or POM emissions
FACILITY	40CFR 63-LL.850(b)	53	Notification, Reporting, and Recordkeeping Requirements - performance test reports
FACILITY	40CFR 63-LL.850(d)	54	Notification, Reporting, and Recordkeeping Requirements - excess emissions report
FACILITY	40CFR 63-LL.850(e)	55	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(i)	60, 61, 62, 63	Group 1 Furnace Emission Standards
M-00001/-/MHS/M0031	40CFR 63-RRR.1505(i)	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



New York State Department of Environmental Conservation
Permit Review Report

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

FACILITY	40CFR 63- RRR.1505(k)(1)	67	Opacity Secondary Aluminum NESHAP - SAPU Emission Standards for PM
FACILITY	40CFR 63- RRR.1505(k)(2)	68	Secondary Aluminum NESHAP - SAPU emission limit for HCl
FACILITY	40CFR 63- RRR.1505(k)(3)	69	Secondary Aluminum NESHAP - SAPU emission limits for dioxin/furan (D/F)
A-00003	40CFR 63- RRR.1505(k)(4)	89	Secondary Aluminum NESHAP - SAPU emission limits
FACILITY	40CFR 63-RRR.1510(b)	70	Monitoring and Compliance Requirements - OM&M Plan
FACILITY	40CFR 63-RRR.1510(s)	71	Site-specific requirements for secondary aluminum processing units
FACILITY	40CFR 63-RRR.1511(a)	72	Site-specific test plan
FACILITY	40CFR 63-RRR.1511(b)	73	Initial Performance Test
FACILITY	40CFR 63-RRR.1511(c)	74	Test Methods
FACILITY	40CFR 63-RRR.1511(e)	75	Repeat Tests
FACILITY	40CFR 63-RRR.1511(f)	76	Testing of Representative Emission Units
A-00003/-/MH2	40CFR 63-RRR.1511(g)	94	Establishment of Monitoring and Operating Parameter Values
C-00001/-/CD1	40CFR 63-RRR.1512(b)	103	Secondary Aluminum NESHAP - Performance Testing for Thermal Chip Dryers
FACILITY	40CFR 63-RRR.1512(e)	77	Performance Test and compliance demonstration requirements and procedures for Group 1 furnaces w/out control devices
FACILITY	40CFR 63- RRR.1512(h)(2)	78	In-line Fluxer emission of HCl based on flux injection rate.
FACILITY	40CFR 63-RRR.1512(j)	79	Performance Test/Compliance Demonstration Requirements and Procedures - Secondary Aluminum Processing Unit
A-00003/-/FBB	40CFR 63-RRR.1512(k)	90	Performance Test/Compliance Demonstration Requirements and Procedures - Feed/Charge Weight

New York State Department of Environmental Conservation
Permit Review Report



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

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(r)	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	Acceptable ambient air quality. Maintenance of equipment.
FACILITY	6NYCRR 200.6	1	Unavoidable noncompliance and violations
FACILITY	6NYCRR 200.7	10	Recycling and Salvage
FACILITY	6NYCRR 201-1.4	158	Prohibition of reintroduction of collected contaminants to the air
FACILITY	6NYCRR 201-1.7	11	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-1.8	12	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-3.2(a)	13	Title V Permits and the Associated Permit Conditions
FACILITY	6NYCRR 201-3.3(a)	14	General Conditions - Requirement to
FACILITY	6NYCRR 201-6	21, 86, 87	
FACILITY	6NYCRR 201-6.4(a)(4)	15	



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

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

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)(ii)	5	Records of Monitoring, Sampling and Measurement Reporting
FACILITY	6NYCRR 201-6.4(d)(4)	22	Requirements - Deviations and Noncompliance
FACILITY	6NYCRR 201-6.4(e)	6	Compliance Schedules - Progress Reports
FACILITY	6NYCRR 201-6.4(f)(6)	17	Compliance Certification
FACILITY	6NYCRR 201-6.4(g)	23	Off Permit Changes
FACILITY	6NYCRR 201-7	88	Permit Shield
FACILITY	6NYCRR 202-1.1	18	Federally Enforceable Emissions Caps
FACILITY	6NYCRR 202-2.1	7	Required emissions tests.
FACILITY	6NYCRR 202-2.5	8	Emission Statements - Applicability
FACILITY	6NYCRR 209	159	Emission Statements - record keeping requirements.
FACILITY	6NYCRR 209.4	160	Primary Aluminum Reduction Plants
FACILITY	6NYCRR 211.1	24	Emissions other than total fluorides.
FACILITY	6NYCRR 212-1.1(a)(1)	25	General Prohibitions - air pollution prohibited
M-00001	6NYCRR 212-1.5(e)(2)	111	General Provisions - Applicability
FACILITY	6NYCRR 212-1.6(a)	26	Demonstrating compliance for Part 212 through the federal NESHAP program
FACILITY	6NYCRR 212-2.3(a)	27	Limiting of Opacity
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	Criteria air contaminants applicable to Table 3
C-00001/-/CD1	6NYCRR 212-2.3(b)	166	Non-Criteria air contaminants subject Table 4
			Non-Criteria air contaminants subject



New York State Department of Environmental Conservation
Permit Review Report

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

C-00002/-/CD2	6NYCRR 212-2.3(b)	167	Table 4 Non-Criteria air contaminants subject
M-00002	6NYCRR 212-2.3(b)	168	Table 4 Non-Criteria air contaminants subject
FACILITY	6NYCRR 212-2.4(b)	28, 29	Table 4 Control of Particulate from New and Modified Process Emission Sources
S-00001/-/POT	6NYCRR 212-2.5(b)	119	Table 6 Permissible Emission Rate
FACILITY	6NYCRR 212-3.1(c)(1)	30, 31	Required Compliance Plans for applicable 212-3 emission sources
S- 00002/S0078/BAK/SS078	6NYCRR 212-3.1(c)(1)	148	Required Compliance Plans for applicable 212-3 emission sources
S-00005/-/PST	6NYCRR 212-3.1(c)(1)	154	Required Compliance Plans for applicable 212-3 emission sources
S-00005/-/PUN	6NYCRR 212-3.1(c)(1)	156	Required Compliance Plans for applicable 212-3 emission sources
FACILITY	6NYCRR 212-3.1(c)(3)	32	RACT compliance plans for NOx emission points
C- 00001/I0030/CML/C0030	6NYCRR 212-3.1(c)(3)	106	RACT compliance plans for NOx emission points
S- 00002/S0078/BAK/SS078	6NYCRR 212-3.1(c)(3)	149	RACT compliance plans for NOx emission points
FACILITY	6NYCRR 215.2	9	Open Fires - Prohibitions
P-00001	6NYCRR 226	118	SOLVENT METAL CLEANING PROCESSES
FACILITY	6NYCRR 227-2.4(d)	33	Small boilers, small combustion turbines, and small stationary internal combustion engines.
M-00001/-/MHS/M0031	6NYCRR 231-11.2(b)	112	Reasonable Possibility requirements for insignificant mods - less than 50% with excluded emissions
FACILITY	6NYCRR 231-2.2(d)(3)	34	Exemptions
FACILITY	6NYCRR 231-3.2	35	Summary of applicability
FACILITY	6NYCRR 249.3(a)	36, 37, 38	BART Emission Limitation Requirements for Sources
S-00001/-/POT	6NYCRR 249.3(a)	120, 121	BART Emission Limitation Requirements for Sources
FACILITY	6NYCRR 257-8	39	Air Quality Standards



New York State Department of Environmental Conservation
Permit Review Report

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

- Fluorides

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



New York State Department of Environmental Conservation
Permit Review Report

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

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



New York State Department of Environmental Conservation
Permit Review Report

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

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



New York State Department of Environmental Conservation
Permit Review Report

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

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 maintain 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 (3.5×10^{-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 (j) (4)



New York State Department of Environmental Conservation
Permit Review Report

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

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)



New York State Department of Environmental Conservation
Permit Review Report

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

or 10 tons per year of a single HAP must test it's 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 conditions 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 determineTEQ units from direct Dioxin and



New York State Department of Environmental Conservation
Permit Review Report

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

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



New York State Department of Environmental Conservation
Permit Review Report

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

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.



New York State Department of Environmental Conservation
Permit Review Report

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

40 CFR 63.843 (c) (3)

40 CFR 63.843 (c) (4)

40 CFR 63.843 (d)

40 CFR 63.843 (e)

40 CFR 63.847 (b)

40 CFR 63.847 (d) (1)

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

40 CFR 63.847 (d) (3)

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

40 CFR 63.847 (d) (4)

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.

40 CFR 63.847 (e) (1)

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

40 CFR 63.847 (e) (3)

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.



New York State Department of Environmental Conservation
Permit Review Report

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

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 conditions 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)



New York State Department of Environmental Conservation
Permit Review Report

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

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)

40 CFR Part 63, Subpart A



New York State Department of Environmental Conservation
Permit Review Report

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

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.



New York State Department of Environmental Conservation
Permit Review Report

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

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.



New York State Department of Environmental Conservation
Permit Review Report

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

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 NO_x emission points must include technically feasible control strategies to minimize NO_x 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 NO_x 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



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

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

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:

Location Facility/EU/EP/Process/ES	Regulation	Short Description
FACILITY	6 NYCRR 212-2.4 (b)	Control of Particulate from New and Modified Process Emission Sources



New York State Department of Environmental Conservation
Permit Review Report

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

A-00003/-/MH2 6 NYCRR 212-2.4 (b) Control of Particulate
from New and Modified
Process Emission
Sources

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 M-00001

6 NYCRR 212-2.4 (b) Control of Particulate
from New and Modified
Process Emission
Sources

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).

M-00002 6 NYCRR 212-2.4 (b) Control of Particulate
from New and Modified
Process Emission
Sources

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)

FACILITY 6 NYCRR 212-3.1 (f) Owners or operators of
applicable emission
points commences
construction after
August 15, 1994

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.

FACILITY 6 NYCRR 231-2.2 Applicability



New York State Department of Environmental Conservation
Permit Review Report

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

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:

Location Facility/EU/EP/Process/ES	Cond No.	Type of Monitoring
FACILITY	40	intermittent emission testing
C-00002	108	intermittent emission testing
B-00002	95	record keeping/maintenance procedures
B-00002	98	record keeping/maintenance procedures
B-00002	99	record keeping/maintenance procedures
B-00002	100	record keeping/maintenance procedures
FACILITY	43	record keeping/maintenance procedures
FACILITY	44	record keeping/maintenance procedures
FACILITY	45	record keeping/maintenance procedures
S-00001/-/POT	122	record keeping/maintenance procedures
S-00001/-/POT	123	record keeping/maintenance procedures
S-00001/-/POT	124	record keeping/maintenance procedures
S-00003/-/GMS	151	record keeping/maintenance procedures
S-00002/-/BAK	139	record keeping/maintenance procedures
S-00002/-/BAK	140	record keeping/maintenance procedures
S-00002/-/BAK	141	record keeping/maintenance procedures
S-00002/-/BAK	142	record keeping/maintenance procedures
S-00005/-/PST	155	record keeping/maintenance procedures
S-00001/-/POT	125	record keeping/maintenance procedures
S-00001/-/POT	126	record keeping/maintenance procedures
S-00002/-/BAK	143	record keeping/maintenance procedures
S-00001/-/POT	128	record keeping/maintenance procedures
S-00002/-/BAK	144	record keeping/maintenance procedures
S-00002/-/BAK	145	record keeping/maintenance procedures
S-00001/-/POT	132	record keeping/maintenance procedures
S-00002/-/BAK	147	record keeping/maintenance procedures
FACILITY	48	record keeping/maintenance procedures
FACILITY	49	record keeping/maintenance procedures
S-00001/-/POT	135	record keeping/maintenance procedures
FACILITY	51	record keeping/maintenance procedures
FACILITY	53	record keeping/maintenance procedures
FACILITY	54	record keeping/maintenance procedures
FACILITY	55	record keeping/maintenance procedures
FACILITY	57	record keeping/maintenance procedures
FACILITY	58	intermittent emission testing
FACILITY	59	intermittent emission testing
FACILITY	60	monitoring of process or control device parameters as surrogate
FACILITY	61	intermittent emission testing
FACILITY	62	intermittent emission testing
FACILITY	63	intermittent emission testing
M-00001/-/MHS/M0031	113	intermittent emission testing



New York State Department of Environmental Conservation
Permit Review Report

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

M-00001/-/MHS/M0031	114	intermittent emission testing
M-00001/-/MHS/M0031	115	intermittent emission testing
FACILITY	64	intermittent emission testing
FACILITY	65	intermittent emission testing
FACILITY	66	intermittent emission testing
FACILITY	68	record keeping/maintenance procedures
FACILITY	70	record keeping/maintenance procedures
FACILITY	72	record keeping/maintenance procedures
FACILITY	73	record keeping/maintenance procedures
FACILITY	75	record keeping/maintenance procedures
FACILITY	76	record keeping/maintenance procedures
C-00001/-/CD1	103	record keeping/maintenance procedures
FACILITY	77	record keeping/maintenance procedures
FACILITY	78	record keeping/maintenance procedures
FACILITY	79	record keeping/maintenance procedures
A-00003/-/FBB	91	record keeping/maintenance procedures
FACILITY	80	record keeping/maintenance procedures
FACILITY	81	record keeping/maintenance procedures
FACILITY	82	record keeping/maintenance procedures
FACILITY	83	record keeping/maintenance procedures
FACILITY	85	record keeping/maintenance procedures
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
S-00004/-/M16	153	intermittent emission testing
FACILITY	7	record keeping/maintenance procedures
FACILITY	159	record keeping/maintenance procedures
FACILITY	25	record keeping/maintenance procedures
M-00001	111	record keeping/maintenance procedures
FACILITY	26	monitoring of process or control device parameters as surrogate
FACILITY	27	work practice involving specific operations
C-00001/I0029/CD1	104	monitoring of process or control device parameters as surrogate
C-00001/I0029/CD1	105	intermittent emission testing
C-00002	107	intermittent emission testing
C-00002/-/CD2	109	intermittent emission testing
C-00002/-/CD2	110	intermittent emission testing
M-00002	116	record keeping/maintenance procedures
FACILITY	161	intermittent emission testing
FACILITY	162	intermittent emission testing
FACILITY	163	work practice involving specific operations
FACILITY	164	record keeping/maintenance procedures
FACILITY	165	intermittent emission testing
C-00001/-/CD1	166	record keeping/maintenance procedures
C-00002/-/CD2	167	intermittent emission testing
M-00002	168	intermittent emission testing
FACILITY	28	record keeping/maintenance procedures
FACILITY	29	intermittent emission testing
S-00001/-/POT	119	record keeping/maintenance procedures
FACILITY	30	intermittent emission testing
FACILITY	31	intermittent emission testing
S-00002/S0078/BAK/SS078	148	record keeping/maintenance procedures
S-00005/-/PST	154	monitoring of process or control device parameters as surrogate
S-00005/-/PUN	156	monitoring of process or control device parameters as surrogate
FACILITY	32	record keeping/maintenance procedures
C-00001/I0030/CM1/C0030	106	record keeping/maintenance procedures
S-00002/S0078/BAK/SS078	149	record keeping/maintenance procedures
P-00001	118	record keeping/maintenance procedures
FACILITY	33	record keeping/maintenance procedures
M-00001/-/MHS/M0031	112	record keeping/maintenance procedures
FACILITY	34	intermittent emission testing
FACILITY	35	record keeping/maintenance procedures
FACILITY	36	intermittent emission testing



New York State Department of Environmental Conservation
Permit Review Report

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

FACILITY	37	intermittent emission testing
FACILITY	38	monitoring of process or control device parameters as surrogate
S-00001/-/POT	120	intermittent emission testing
S-00001/-/POT	121	intermittent emission testing
FACILITY	39	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.

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.



New York State Department of Environmental Conservation
Permit Review Report

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

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.



New York State Department of Environmental Conservation
Permit Review Report

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

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 NO_x to 0.30 lbs/mmBtu. The current configuration with low NO_x 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.