

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 6-4058-00003/00365

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Facility Identification Data

Name: ALCOA MASSENA OPERATIONS (WEST PLANT)
Address: PARK AVENUE EAST
City: MASSENA
Zip: 13662

Owner/Firm

Name: ALCOA INC
City: PITTSBURGH
State: PA Country: USA Zip: 15212
Owner Classification: Corporation/Partnership

Permit Contacts

Division of Environmental Permits:
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Permit Description

Introduction

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

Summary Description of Proposed Project

ALCOA MASSENA OPERATIONS IS SUBMITTING A TITLE V APPLICATION TO REPLACE EXISTING CERTIFICATES TO OPERATE. THIS IS AN ORIGINAL (PHASE 2) TITLE V PERMIT APPLICATION, NOT A MODIFICATION OF AN EXISTING PERMIT.

Attainment Status

ALCOA MASSENA OPERATIONS (WEST PLANT) is located in the town of MASSENA in the

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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* (NON-ATTAINMENT)	TRANSPORT REGION (NON-ATTAINMENT)
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

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

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

Facility Description

ALCOA (ALUMINUM COMPANY OF AMERICA) OWNS AND OPERATES A PRIMARY ALUMINUM PRODUCING AND FABRICATING FACILITY IN MASSENA, NEW YORK (MASSENA OPERATIONS). MASSENA OPERATIONS IS COMPRISED OF THREE PRODUCTION AREAS: SMELTING PLANT (AREA III), INGOT-EXTRUSION AREA (AREA II), AND FABRICATING PLANT (AREA I). PRODUCTS INCLUDE ALUMINUM METAL, INGOT, WIRE, ROD AND BAR. IT ALSO PRODUCES STEAM IN AN ON-SITE BOILERHOUSE.

Permit Structure and Description of Operations

The Title V permit for ALCOA MASSENA OPERATIONS (WEST PLANT) is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device.

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[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 MASSENA OPERATIONS (WEST PLANT) is defined by the following emission unit(s):

Emission unit A00002 - INSIGNIFICANT SHOP SOURCES.

Emission unit A00002 is associated with the following emission points (EP):

F0031, F0062, F0063, F0064, F0065, F0067

It is further defined by the following process(es):

Process: FAB is located at AREA I, Building 140 - Small crucible located in the Fabricating Shop used occasionally to melt lead, lead bismuth, zinc or tin babbitt. Cruce heated by natural gas fired burner.

Process: MRS is located at AREA I, Building 131 - THREE (3) SMALL NATURAL GAS OVENS AND TWO (2) MAINTENANCE PAINTING ROOMS USED IN MAINTENANCE SHOPS. THE BAKE OVEN AND DRYING OVEN ARE USED TO DRY PARTS WASHED WITH A WATER BASED SOLUTION, AND OCCASIONALLY TO CURE MOTOR COILS COATED WITH VARNISH. ELECTRIC SMALL CRUCIBLE LOCATED IN THE FABRICATING SHOP USED OCCASIONALLY TO MELT LEAD, LEAD BISMUTH, ZINC OR TIN BABBIT. CRUCE HEATED BY NATURAL GAIL-FIRED BURNER. BURN-OFF OVEN USED OCCASIONALLY TO BURN AWAY PHENOLIC RESIN AND VARNISH FROM MOTOR COILS.

Emission unit B00001 - FOUR VIRTUALLY IDENTICLE PACKAGE BOILERS FIRING EITHER NATURAL GAS OR #6 FUEL OIL.

Emission unit B00001 is associated with the following emission points (EP):

00001, 00002

It is further defined by the following process(es):

Process: GAS is located at AREA II, Building 216A - FOUR VIRTUALLY IDENTICAL BOILERS CAPABLE OF BURNING NATURAL GAS.

Process: OIL is located at AREA II, Building 216A - FOUR VIRTUALLY IDENTICAL BOILERS CAPABLE OF BURNING NO. 6 FUEL OIL.

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

It is further defined by the following process(es):

Process: CD1 is located at AREA II, Building 221 - CHIP DRYER #1 DRIES ALUMINUM MACHINING CHIPS WITH HEATED AIR.

Process: CM1 is located at AREA II, Building 221 - CHIP MELTER #1 MELTS CLEAN ALUMINUM

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MACHINING CHIPS.

Emission unit C00002 - CHIP DRYER #2 WITH ASSOCIATED CONTROL EQUIPMENT (CYCLONE AND THERMAL OXIDIZER) AND CHIP MELTER #2.

Emission unit C00002 is associated with the following emission points (EP): I0044, I0045

It is further defined by the following process(es):

Process: CD2 is located at AREA II, Building 221 - CHIP DRYER #2 DRIES ALUMINUM MACHINING CHIPS HEATED WITH AIR.

Process: CM2 is located at AREA II, Building 221 - 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): F0042, I0016, I0042

It is further defined by the following process(es):

Process: ALB is located at AREA I, Building 140 - ALUMINUM BURNISHER

Process: CCT is located at AREA II, Building 222 - EMULSIFIED OIL AND WATER SYSTEM FOR THE CONTINUOUS CASTER.

Process: PRT is located at AREA I, Building 140 - FABRICATED ALUMINUM BARS PASS THROUGH AN ENCLOSED SPRAY CHAMBER WHERE A CLEAR PROTECTIVE COATING IS APPLIED TO THE BASE METAL. THE COATING IS TRANSPARENT AND USES THE UNDERCOAT ALUMINUM AS A REFLECTIVE BASE. EMISSIONS PASS THROUGH A MIST COLLECTOR AND V ENT INSIDE THE BUILDING.

Process: SKD is located at AREA II, Building 220 - SKIM AND DROSS AREA USED FOR PASSIVE COOLING OF SKIM AND DROSS.

Emission unit F00001 - ALCOA ENGINEERED PRODUCTS (AEP) FUGITIVES.

It is further defined by the following process(es):

Process: FB1 is located at AREA I, Building 131 - FUGITIVES FROM THE BULL BLOCK. PROCESS APPLIES HIGH BOILING POINT (GREATER THAN 300f) SOLVENT TO SLIGHTLY HOT METAL TO ADHERE METAL TO BLOCK. VOC EMISSIONS ARE INLCUDED ON THE ANNUAL EMISSIONS STATEMENT.

Process: FB2 is located at AREA I, Building 131 - FUGITIVES FROM THE INK JET PRINTER. METHYL ETHYL KETONE (MEK) USED AS A CARRIER SOLVENT. MEK EMISSIONS ARE INCLUDED ON THE ANNUAL EMISSIONS STATEMENT.

Process: FB3 is located at AREA I, Building 131 - FUGITIVES FROM WAX DIPPING AND AIR DRYING COILS. WAX IS MIXED WITH WATER AND HEATED,THUS DOES NOT HAVE A HIGH, VOC CONTENT. VOC EMISSIONS INCLUDED ON ANNUAL EMISSIONS STATEMENT.

Process: FC1 is located at AREA II, Building 222 - FUGITIVES FROM THE ROD OILER ASSOCIATED WITH THE CONTINUOUS CASTER. VOC EMISSIONS WILL BE INCLUDED ON THE ANNUAL EMISSIONS STATEMENT.

Process: FC2 is located at AREA II, Building 222 - FUGITIVES FROM THE AUTOMATIC LATHE. VOC EMISSIONS WILL BE INCLUDED ON THE ANNUAL EMISSIONS STATEMENT.

Process: FC3 is located at AREA I, Building 220 - TWO (2) MOLD SHOP BAKE OVENS. SMALL OVEN IS USED TO VOLATILIZE OIL IMPREGNATED IN GRAPHITE RINGS. EMISSIONS VENT INTO THE MILL AND ESTIMATED TO BE INSIGNIFICANT.

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Emission unit M00001 - ALUMINUM MELTING AND HOLDING FURNACES. ALL FURNACES ARE REVERBERATORY, CENTER CHARGED. FURNACE CHARGE MOLTEN ALUMINUM, 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, I0034, I0035, I003A, I003C, I024C, I024D, I024F

It is further defined by the following process(es):

Process: MHA is located at AREA II, Building 221 - MOLTEN ALUMINUM MELTING AND HOLDING FURNACES. CURRENTLY, THESE FURNACES ARE NOT PERMITTED TO USE SALT FLUXES.

Process: MHS is located at AREA II, Building 221 - MOLTEN ALUMINUM MELTING AND HOLDING FURNACES WHICH ARE PERMITTED TO USE SALT FLUXES AT THE TIME OF TITLE V APPLICATION SUBMISSION. ALL FURNACES ARE REVERBERATORY, CENTER CHARGED. NO GAS FLUXING IS DONE IN ANY FURNACE.

Emission unit M00002 - 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. 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 OR INDIVIDUALLY, HOWEVER, ONLY ONE FILTER BOX IS FLUXING AT ANY TIME SINCE THERE IS ONLY ONE CASTING APPARATUS PER COMPLEX. THUS ONLY ONE FILTERBOX EMISSION SOURCE AND POINT REPRESENTS ALL FILTERBOXES IN A SINGLE CASTING COMPLEX.

Emission unit M00002 is associated with the following emission points (EP):

I0036, I024E, I001E, I003E

It is further defined by the following process(es):

Process: FBA is located at AREA II, Building 221 - 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 OR INDIVIDUALLY, HOWEVER, ONLY ONE FILTERBOX IS FLUXING AT ANY TIME SINCE THERE IS ONLY ONE CASTING APPARATUS PER COMPLEX. THUS, ONLY ONE FILTERBOX EMISSION SOURCE AND POINT REPRESENTS ALL FILTERBOXES IN A CASTING COMPLEX.

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

It is further defined by the following process(es):

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 MACT REGULATIONS. THE PERMIT TO CONSTRUCT WAS ISSUED IN NOVEMBER 1973.

Emission unit S00001 is associated with the following emission points (EP):

SA398

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It is further defined by the following process(es):

Process: POT is located at AREA III, Building 401 - 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 S00002 - ANODE BAKING FURNACE AND ASSOCIATED ALUMINA INJECTION DRY SCRUBBER.

Emission unit S00002 is associated with the following emission points (EP): S0078, SS078

It is further defined by the following process(es):

Process: BAK is located at AREA II, Building 351 - ANODE BAKING FURNACE AND ASSOCIATED ALUMINA INJECTION DRY SCRUBBER.

Emission unit S00003 - PASTE PRODUCTION PLANT AND ASSOCIATED COKE INJECTION SCRUBBER.

Emission unit S00003 is associated with the following emission points (EP): S0100

It is further defined by the following process(es):

Process: GMS is located at AREA III, Building 354C - 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, S0017, S0038, S0041, S0043, S0046, S0047, S0048, S0049, S0050, S0051, S0052, S0053, S0060, S0061, S0083, S0086, S0090, S0092, S0093, S0095, S0102, S023B, S23AA, S23AC

It is further defined by the following process(es):

Process: M01 is located at AREA III, Building 332 - 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, AND ANTHRACITE COAL HANDLING AND STORAGE.

Process: M02 is located at AREA III, Building 344 - ELECTRIC WELDER USED TO WELD ALUMINUM, COPPER, AND STEEL TOGETHER. WELD IS PRODUCED UNDER HIGH CURRENT AND HYDRAULIC PRESSURE.

Process: M03 is located at AREA III, Building 351 - PACKED COKE DRILLED OUT OF ANODE STUB HOLES.

Process: M04 is located at AREA III, Building 378 - DRY SCRUBBER ALUMINA LOADING AND UNLOADING AREA.

Process: M05 is located at AREA III, Building 380 - ROUGH CLEANING OF SPENT ANODES.

Process: M06 is located at AREA III, Building 435 - BATH HANDLING, CRUSHING AND CRUCIBLE DIGGING OPERATIONS.

Process: M07 is located at AREA III, Building 441 - TRANSFER POINT IN BUILDING 441 FOR TWO ALUMINA BELT CONVEYORS.

Process: M08 is located at AREA III, Building 354B - BUTT CRUSHING.

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Process: M09 is located at AREA III, Building 354C - ANODE BUTT STORAGE, STORAGE FILLING, AGGREGATE BLENDING, COKE CRUSHING, STORAGE DISCHARGE, BALL MILL CLASSIFYING, AND INTERMEDIATE CLASSIFYING.

Process: M10 is located at AREA III, Building 440A - STORAGE TANK 440A AND 440B FLUIDIZER FOR ALUMINA

Process: M11 is located at AREA III, Building 440H - TRACK HOPPER DUST COLLECTOR FOR ALUMINA UNLOADING AND ALUMINA AIRLIFT TOWER DUST COLLECTOR.

Process: M12 is located at AREA III, Building 441C - TRANSFER POINT 441C SERVES ST441C AND THE TRANSFER OF ALUMINA TO ST441B.

Process: M13 is located at AREA III, Building 446A - ALUMINA TRANSFER POINT 446A FROM REACTORS TO STORAGE TANKS.

Process: M14 is located at AREA III, Building 446B - ALUMINA TRANSFER POINT 446B FROM REACTORS TO STORAGE TANKS.

Process: M15 is located at AREA III, Building 446C - ALUMINA TRANSFER POINT 446C FROM REACTORS TO STORAGE TANKS.

Process: M16 is located at AREA III, Building 469 - POT DIGGING AND SPENT POTLINING HANDLING OPERATIONS CONTROLLED BY A FABRIC FILTER TO LIMIT PARTICULATE EMISSIONS TO THE ENVIRONMENT.

Emission unit S00005 - COAL TAR PITCH UNLOADING AND STORAGE. INCLUDES FUGITIVES FROM THE PITCH UNLOADING PUMPS AND PITCH RECIRCULATING PUMPS.

Emission unit S00005 is associated with the following emission points (EP):

S0073, S0077, S0088, S0089, S073A

It is further defined by the following process(es):

Process: PST is located at AREA III, Building 352F - 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 is located at AREA III, Building 352B - 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 BUILDING VENTILATOR DESIGNATED AS EP S073A.

Emission unit S00006 - SMELTING AND ANODE PLANT FUGITIVES EXCEPTING POTLINE FUGITIVES (THE POTLINE FUGITIVES ARE REGULATED UNDER PRIMARY ALUMINUM MACT REGULATIONS).

It is further defined by the following process(es):

Process: FA1 is located at AREA III, Building 350 - TOTAL SUSPENDED SOLID (I.E. PARTICULATE) FUGITIVES FROM COKE UNLOADING.

Process: FA2 is located at AREA III, Building 352B - TOTAL SUSPENDED SOLID (I.E. PARTICULATE) FUGITIVES FROM COKE STORAGE AND HANDLING.

Process: FA3 is located at AREA III, Building 351 - TOTAL SUSPENDED SOLID (I.E. PARTICULATE) FUGITIVES FROM CLAMSHELL BUCKET OPERATIONS IN THE ANODE BAKING FURNACE ROOM.

Process: FAC is located at AREA III, Building 380 - WHEN SPENT ANODES ARE PLACED IN BUILDING 380 AND 376 TO COOL, THERE ARE FUGITIVE EMISSIONS FROM PASSIVE

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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.

Process: FSM is located at AREA III, Building 332 - SEAM MIX OPERATIONS INCLUDE: LOW TEMPERATURE PITCH UNLOADING AND STORAGE, THE MIXING OF PITCH, ANTHRACITE COAL AND LIQUID METHYLNAPHTHALENE, AND THE PLACING OF FINAL PRODUCT IN BAGS. FUGITIVE EMISSIONS CONSIST OF POLYCYCLIC ORGANIC MATTER.

Emission unit W00001 - WASTEWATER TREATMENT OPERATIONS.

Emission unit W00001 is associated with the following emission points (EP): F0068, F0069, F0070, F0071

It is further defined by the following process(es):

Process: OWT is located at AREA I, Building 79C - TREATMENT OF MISCELLANEOUS OILY WASTEWATERS USING A PRECOATE VACUUM FILTER. VACUUM EXHAUST IS THE EMISSION POINT.

Process: WWT is located at AREA I, Building 79C - WASTEWATER TREATMENT CONSISTS OF CHEMICAL PRE-TREATMENT, AND BIOLOGICAL TREATMENT.

Emission unit A00001 - PROCESS HEATERS TREAT SOLID ALUMINUM AND EMIT SMALL QUANTITIES OF PROCESS EMISSIONS DUE TO RESIDUALS ON THE ALUMINUM. EMISSIONS CO-MINGLE WITH PRODUCTS-OF-COMBUSTION (POC) FROM NATURAL GAS BURNERS.

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

F0014, F0015, F001A, F001B, F001C, F001D, F001E, F002A, F002B, F0075, F0076, F074A, F074B, F078A, F078B, FC01A, FC01B, FC01C, FC01D, FC01E, I0014, I0026, I0027, I0043, I0046, I015A, I015B

It is further defined by the following process(es):

Process: EPH is located at AREA II, Building 234 - TWO (2) 6500 TON PRESS PRE-HEATS AND ONE (1) 5300 TON PRESS PRE-HEAT FURNACE. EACH USES MULTIPLE DIRECT FIRE NATURAL GAS BURNERS.

Process: HMO is located at AREA II, Building 222 - FOUR (4) 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.

Process: HT1 is located at AREA I, Building 131 - #30, 31, 32, 33, 34, 35, 36, 37, 38 HEAT TREAT FURNACES PROCESS EXHAUST. EACH FURNACE EXHAUSTS THROUGH THEIR OWN EMISSION POINT. #32-36 FURNACES ARE INDIRECTLY FIRED AND HAVE SEPARATE COMBUSTION EXHAUSTS. RESIDUAL OIL ON ALUMINUM PRODUCES SLIGHT VOC EMISSION. CHEMICAL ADDITIVE PREVENTS OXIDATION OF SURFACE OF METAL AND PRODUCES INCIDENTAL HYDROGEN FLUORIDE EMISSION AS A BY-PRODUCT.

Process: HT2 is located at AREA I, Building 140 - HEAT TREAT FURNACES #13, #14 AND #15 ARE INDIRECT FIRED NATURAL GAS FURNACES WHERE THE PRODUCTS OF COMBUSTION EXHAUST THROUGH EMISSION POINT (EP) F078A. THE FURNACE IS EXHAUSTED THROUGH EP F0014. HEAT TREAT FURNACES #16, #17 AND #18 HAVE A SIMILAR ARRANGEMENT WHERE THE PRODUCTS OF COMBUSTION EXHAUST THROUGH EP F078B AND THE FURNACE EXHAUST THROUGH EP F0015. FURNACE PROCESS EMISSIONS CONSIST OF RESIDUAL DRAWING LUBE FROM THE BARS WHICH

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ARE COMBUSTED AND VAPORIZED DURING THE BEGINNING OF THE HEAT TREAT P ROCESS. CHEMICAL ADDITIVES PREVENT THE OXIDATION OF SURFACE METAL. THIS ADDITIVE PRODUCES INCIDENTAL HYDROGEN FLUORIDE AS A BY-PRODUCT. NUMBER 23 AND 24 AGE ANNEAL FURNACES ARE EACH EXHAUSTED THROUGH THEIR OWN EMISSION POINTS. THESE FURNACES ARE DIREC T FIRED, NATURAL GAS AND RESIDUAL OIL ON THE ALUMINUM PRODUCES SLIGHT VOC EMISSIONS.

Title V/Major Source Status

ALCOA MASSENA OPERATIONS (WEST PLANT) is subject to Title V requirements. This determination is based on the following information:

The facility is a major source of emissions for the following air contaminants:

Hazardous Air Pollutants (HAPs)

Carbon Monoxide

Carbonyl Sulfide

Chlorine

Fluorides

Hydrogen Chloride

Hydrogen Fluoride

Oxides of Nitrogen

Particulates

PM-10

Sulfur Dioxide

Polycyclic Organic Matter (POMs)

Volatile Organic Compounds (VOCs)

Program Applicability

The following chart summarizes the applicability of ALCOA MASSENA OPERATIONS (WEST PLANT) with regards to the principal air pollution regulatory programs:

Regulatory Program	Applicability
PSD	YES
f0NSR (non-attainment)	YES
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	YES
NSPS	NO
TITLE IV	NO



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TITLE V	YES
TITLE VI	NO
RACT	YES
SIP	YES

NOTES:

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

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

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

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

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

Title IV Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

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

RACT Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of

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meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.

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

Compliance Status

Facility is in compliance with all requirements

SIC Codes

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

SIC Code	Description
3334	PRIMARY ALUMINUM
3354	ALUMINUM EXTRUDED PRODUCTS
3355	ALUMINUM ROLLING & DRAWING NEC

SCC Codes

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

SCC Code	Description
1-02-004-01	EXTERNAL COMBUSTION BOILERS - INDUSTRIAL INDUSTRIAL BOILER - RESIDUAL OIL Grade 6 Oil
3-09-005-00	FABRICATED METAL PRODUCTS FABRICATED METAL PRODUCTS - WELDING FABRICATED METAL PROD-WELDING: GENERAL
2-88-888-01	INTERNAL COMBUSTION ENGINES - FUGITIVE EMISSIONS INTERNAL COMBUSTION ENGINE: FUGITIVE EMISSIONS, OTHER/NOT CLASSIFIED Specify in Comments

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2-02-002-02	INTERNAL COMBUSTION ENGINES - INDUSTRIAL INDUSTRIAL INTERNAL COMBUSTION ENGINE - NATURAL GAS Reciprocating
4-01-003-35	ORGANIC SOLVENT EVAPORATION COLD SOLVENT CLEANING/STRIPPING Entire Unit
3-03-003-12	PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION (BY-PRODUCT COKE MANUFACTURING) Coke: Crushing/Screening/Handling
3-03-003-99	PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION (BY-PRODUCT COKE MANUFACTURING)
3-03-001-05	NOT CLASSIFIED ** PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-03-001-04	Anode Baking Furnace PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-03-001-99	Materials Handling PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-03-001-01	NOT CLASSIFIED ** PRIMARY METAL PRODUCTION PRIMARY METAL PRODUCTION - ALUMINUM ORE (ELECTRO-REDUCTION)
3-04-001-09	Prebaked Reduction Cell SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Burning/Drying
3-04-001-04	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Fluxing: Chlorination
3-04-001-07	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Hot Dross Processing
3-04-001-99	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Other Not Classified
3-04-001-03	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - ALUMINUM Smelting Furnace/Reverberatory
3-04-022-10	SECONDARY METAL PRODUCTION SECONDARY METAL PRODUCTION - METAL HEAT TREATING Quench Bath

Facility Emissions Summary

In the following table, the CAS No. or Chemical Abstract Series code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is

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contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
0NY505-00-0	40 CFR 63 SUBPART LL - POM(HAP)	>= 10	tpy
000075-07-0	ACETALDEHYDE(HAP)	> 0	but < 10 tpy
000107-02-8	ACROLEIN(HAP)	> 0	but < 10 tpy
007664-41-7	AMMONIA	> 0	but < 2.5 tpy
007440-36-0	ANTIMONY(HAP)	> 0	but < 10 tpy
000071-43-2	BENZENE(HAP)	> 0	but < 10 tpy
007440-41-7	BERYLLIUM(HAP)	> 0	but < 10 tpy
007440-43-9	CADMIUM(HAP)	> 0	but < 10 tpy
000630-08-0	CARBON MONOXIDE	>= 250	tpy
000463-58-1	CARBONYL SULFIDE(HAP)	>= 10	tpy
007782-50-5	CHLORINE(HAP)	>= 10	tpy
007440-47-3	CHROMIUM(HAP)	> 0	but < 10 tpy
007440-48-4	COBALT(HAP)	> 0	but < 10 tpy
000057-12-5	CYANIDE(HAP)	> 0	but < 10 tpy
000132-64-9	DIBENZOFURAN(HAP)	> 0	but < 10 tpy
000067-64-1	DIMETHYL KETONE	> 0	but < 2.5 tpy
000111-42-2	ETHANOL, 2,2'-IMINOBIS-(HAP)	> 0	but < 10 tpy
000100-41-4	ETHYLBENZENE(HAP)	> 0	but < 10 tpy
068188-85-2	FLUORIDES	>= 250	tpy
000050-00-0	FORMALDEHYDE(HAP)	> 0	but < 10 tpy
0NY100-00-0	HAP	>= 250	tpy
000110-54-3	HEXANE(HAP)	> 0	but < 10 tpy
000074-90-8	HYDROCYANIC ACID(HAP)	> 0	but < 10 tpy
007647-01-0	HYDROGEN CHLORIDE(HAP)	>= 10	tpy
007664-39-3	HYDROGEN FLUORIDE(HAP)	>= 10	tpy
007439-92-1	LEAD(HAP)	> 0	but < 10 tpy
007439-96-5	MANGANESE(HAP)	> 0	but < 10 tpy
000067-56-1	METHYL ALCOHOL(HAP)	> 0	but < 10 tpy
000078-93-3	METHYL ETHYL KETONE(HAP)	> 0	but < 10 tpy
007440-02-0	NICKEL METAL AND INSOLUBLE COMPOUNDS(HAP)	> 0	but < 10 tpy
0NY090-00-0	OIL MIST	>= 2.5	tpy but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN	>= 250	tpy
0NY075-00-0	PARTICULATES	>= 250	tpy
000108-95-2	PHENOL(HAP)	> 0	but < 10 tpy
0NY075-00-5	PM-10	>= 250	tpy
130498-29-2	POLYCYCLIC AROMATIC HYDROCARBONS(HAP)	>= 10	tpy
007446-09-5	SULFUR DIOXIDE	>= 250	tpy
000075-73-0	TETRAFLUORO METHANE	> 0	but < 2.5 tpy
000108-88-3	TOLUENE(HAP)	> 0	but < 10 tpy
0NY998-10-0	UNSPECIATED VOC (EMISSION STATEMENT USE ONLY)	>= 40	tpy but < 50 tpy
0NY998-00-0	VOC	>= 250	tpy
001330-20-7	XYLENE, M, O & P MIXT.(HAP)	> 0	but < 10 tpy

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

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Item A: Sealing - 6NYCRR Part 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation. Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

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

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

Item B: Acceptable Ambient Air Quality - 6NYCRR Part 200.6

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

Item C: Maintenance of Equipment - 6NYCRR Part 200.7

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

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

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

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

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

Item E: Emergency Defense - 6NYCRR Part 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

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

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

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

Item F: Recycling and Salvage - 6NYCRR Part 201-1.7

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

Item G: Prohibition of Reintroduction of Collected Contaminants to the Air -

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6NYCRR Part 201-1.8

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

Item H: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 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 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

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

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

Item J: Proof of Eligibility for Sources Defined as Trivial Activities - 6 NYCRR Part 201-3.3(a)

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

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

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for

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permit renewal purposes.

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

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

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

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

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

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item O: Providing Information Upon Request - 6 NYCRR Part 201-6.5(a)(4)

The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The permittee shall also, on request, furnish the Department with copies of records required to be kept by the permit. Where information is claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

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

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

Item R: Fees - 6 NYCRR Part 201-6.5(a)(7)

The owner and/or operator of a stationary source shall pay fees to the department consistent with the fee schedule authorized by 6 NYCRR Subpart 482-2.

Item S: Right to Inspect - 6 NYCRR Part 201-6.5(a)(8)

Upon presentation of credentials and other documents, as may be required by law, the permittee shall allow the Department or an authorized representative to perform the following:

- i. Enter upon the permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- iii. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- iv. As authorized by the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

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

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

Item U: Progress Reports and Compliance Schedules - 6 NYCRR Part 201-6.5(d)(5)

Progress reports consistent with an applicable schedule of compliance must be submitted at least semiannually on a calendar year basis, or at a more frequent period if specified in the applicable requirement or by the Department elsewhere in this permit. These reports shall be submitted to the Department within 30 days after the end of a reporting period. Such progress reports shall contain the

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following:

- i. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
- ii. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

Item V: Off Permit Changes - 6 NYCRR Part 201-6.5(f)(6)

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the Administrator and the Department with written notification in advance of the proposed changes within a minimum of 7 days as required by 6 NYCRR §201-6.5(f)(6).

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

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

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and

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

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

i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

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

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

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

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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 Y: Required Emission Tests - 6 NYCRR Part 202-1.1

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

Item Z: Visible Emissions Limited - 6 NYCRR Part 211.3

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

Item AA: Open Fires - 6 NYCRR Part 215

No person shall burn, cause, suffer, allow or permit the burning in an open fire of garbage, rubbish for salvage, or rubbish generated by industrial or commercial activities.

Item BB: 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.

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Item CC: 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	Short Description	Condition
FACILITY	ECL 19-301.	Powers and Duties of the Department with respect to air pollution control	201
C-00001	40CFR 52-A.21(i)(1)	Review of Major Stationary Sources and Major Modifications - Source Applicability	57
C-00002	40CFR 52-A.21(i)(1)	Review of Major Stationary Sources and Major Modifications - Source Applicability	66

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S-00004/-/M16	40CFR 52-A.21(i)(1)	Review of Major Stationary Sources and Major Modifications -	197
FACILITY	40CFR 63-LL.841	Source Applicability Subpart LL - Incorporation by Reference	20
S-00001/-/POT	40CFR 63-LL.843(a)(1)(i)	Emission Limits for Existing Sources - Total Fluoride Limit for Center-Worked Prebake One (CWPB1) Potlines	117
S-00003	40CFR 63-LL.843(b)	Emission Limits for Existing Sources - Paste Production Plants	177
S-00002/-/BAK	40CFR 63-LL.843(c)(1)	Emissions Limits for Existing Sources - Total Fluoride (TF) Limit for Anode Bake Furnaces	146
S-00002/-/BAK	40CFR 63-LL.843(c)(2)	Emission Limits for Existing Sources - POM Limit for Anode Bake Furnaces	147
FACILITY	40CFR 63-LL.847(b)	Compliance Provisions - Test Plan	21
S-00001/-/POT	40CFR 63-LL.847(d)(1)	Performance Test Requirements - TF	118
S-00001/-/POT	40CFR 63-LL.847(d)(3)	Emissions from Potlines Performance Test Requirements - Previous Control Device Tests	119
S-00002/-/BAK	40CFR 63-LL.847(d)(3)	Performance Test Requirements - Previous Control Device Tests	148
S-00002/-/BAK	40CFR 63-LL.847(d)(4)	Performance Test Requirements - TF and POM Emissions from Anode Bake Furnaces	149, 150
S-00001/-/POT	40CFR 63-LL.847(e)(1)	Compliance Provisions - Potline TF Equation	120
S-00002/-/BAK	40CFR 63-LL.847(e)(3)	Compliance Provisions - Anode Bake Furnace TF Equation	151
S-00002/-/BAK	40CFR 63-LL.847(e)(4)	Compliance Provisions - Anode Bake Furnace POM Equation	152
S-00001/-/POT	40CFR 63-LL.847(e)(5)	Compliance Provisions - Calculation of Emission Rates	121
S-00002/-/BAK	40CFR 63-LL.847(e)(5)	Compliance Provisions - Calculation of Emission Rates	153
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Applicability Discussion:

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

ECL 19-301.

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.

6NYCRR Part 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

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from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6NYCRR Part 201-6

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

6NYCRR Part 201-6.5(c)

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

6NYCRR Part 201-6.5(c)(2)

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

6NYCRR Part 201-6.5(e)

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

6NYCRR Part 201-6.5(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.

6NYCRR Part 202-1.1

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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.

6NYCRR Part 202-2.1

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

6NYCRR Part 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.

6NYCRR Part 211-.2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

40 CFR Part 68.

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

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or 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 MASSENA OPERATIONS (WEST PLANT) has been determined to be subject to the following regulations:

40CFR 52-A.21 (i) (1)

Any stationary source or modification to which the requirements of this regulation apply cannot begin construction without a valid permit.

40CFR 63-LL.841

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

40CFR 63-LL.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.

40CFR 63-LL.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.

40CFR 63-LL.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.

40CFR 63-LL.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.

40CFR 63-LL.847 (b)

This condition requires the submission of a test plan outlining how the facility will test the emissions to show compliance with the regulation.

40CFR 63-LL.847 (d) (1)

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

40CFR 63-LL.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.

40CFR 63-LL.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.

40CFR 63-LL.847 (e) (1)

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

40CFR 63-LL.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.

40CFR 63-LL.847 (e) (4)

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This condition states that after testing the exhaust gas of the anode bake furnace, this equation must be used to compute the amount of Polycyclic Organic Matter (POM) emitted per amount of unbaked anode.

40CFR 63-LL.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.

40CFR 63-LL.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)

40CFR 63-LL.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).

40CFR 63-LL.847 (f)

This condition establishes how initial compliance will be determined on new and existing paste production plants.

40CFR 63-LL.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.

40CFR 63-LL.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.

40CFR 63-LL.847 (h) (3)

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

40CFR 63-LL.848

This condition references the parametric monitoring plan which contains the monitored parameters that will ensure compliance with the limits for POMs and TF from the potlines and the anode bake furnace.

40CFR 63-LL.848 (a)

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

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40CFR 63-LL.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.

40CFR 63-LL.848 (e) (1)

This condition states a facility can reduce the frequency of testing for Total Fluorides (TF) from the roof vents above the potlines if they can show they are always well below the emission limits.

40CFR 63-LL.848 (e) (2)

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

40CFR 63-LL.848 (f) (1)

This condition sets forth what parameters of each control device shall be monitored to ensure compliance with the emission limits of Fluorides and POMs.

40CFR 63-LL.848 (f) (2)

This condition states a device to measure the air flow and coke flow on the coke scrubbers shall be installed to show that the scrubber is operating properly to control Polycyclic Organic Matter emissions.

40CFR 63-LL.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.

40CFR 63-LL.848 (h)

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

40CFR 63-LL.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.

40CFR 63-LL.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.

40CFR 63-LL.848 (k)

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

40CFR 63-LL.848 (l)

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

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40CFR 63-LL.849 (a)

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

40CFR 63-LL.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.

40CFR 63-LL.849 (d)

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

40CFR 63-LL.849 (e)

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

40CFR 63-LL.850 (b)

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

40CFR 63-LL.850 (c) (1)

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

40CFR 63-LL.850 (c) (2)

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

40CFR 63-LL.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.

40CFR 63-LL.850 (e) (1)

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

40CFR 63-LL.850 (e) (2)

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

40CFR 63-LL.850 (e) (3)

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

40CFR 63-LL.850 (e) (4)

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

40CFR 63-RRR.1506 (d)

This condition states the facility must be able to accurately measure the weight of the aluminum

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feed/charge or throughput in order to determine compliance with emission limits.

40CFR 63-RRR.1506 (p)

This condition states when a device is not operating properly, it must be fixed.

40CFR 63-RRR.1510 (e)

This condition states accurate scales must be installed to measure the weight of aluminum produced. The weight of the aluminum produced will be used to calculate emissions to show compliance with the emission limits.

40CFR 63-RRR.1510 (t)

This condition tells the facility how to calculate the particulate matter (PM) emissions for each secondary aluminum processing unit (SAPU)

40CFR 63-RRR.1511 (a)

This conditions states the facility must show the Department how they are going to test the equipment before they do it.

40CFR 63-RRR.1511 (b)

This condition tells how the facility must do the initial pollutant testing on the exhaust from the equipment.

40CFR 63-RRR.1511 (c)

This condition states which test method must be used for each pollutant being tested.

40CFR 63-RRR.1511 (e)

This condition states every facility emitting more than 25 tons per year of hazardous air pollutants (HAPs) or 10 tons per year of a single HAP must test it's equipment every 5 years.

40CFR 63-RRR.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.

40CFR 63-RRR.1511 (g)

This conditions states minimum and/or maximum operation parameters must be established using information from the performance stack tests.

40CFR 63-RRR.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).

40CFR 63-RRR.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.

40CFR 63-RRR.1513 (b)

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This condition states the equation shown must be used to show compliance with the emission limits for Particulate Matter.

40CFR 63-RRR.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.

40CFR 63-RRR.1517 (b) (17)

This condition states records must be kept of the weight (charged or produced) of aluminum for each 24 hour period. The weight will then be averaged over a 3 day period and those calculations must be kept on record.

40CFR 63-RRR.1517 (b) (7)

This condition states records must be kept of the weight of aluminum used in the initial performance test to determine compliance with emission limits.

40CFR 68 .

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

6NYCRR 201-3.2 (c) (17)

This condition says surface painting operations are exempt from permitting if less than 25 gallons a month are used and if the operation is exhausted to a control device.

6NYCRR 201-6.5 (c)

This requirement specifies what information must be included in any records and reports that are to be maintained or submitted as a result of any compliance monitoring. Records of all monitoring data and support information is to be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Reports of any required monitoring as a result of a federally applicable requirement needs to be submitted every 6 months, at a minimum. Finally, the permit needs to include a notification and reporting process for permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 201-6.5 (c) (2)

This requirement specifies what information must be included in any records and reports that are to be maintained or submitted as a result of any compliance monitoring. Records of all monitoring data and support information is to be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Reports of any required monitoring as a result of a federally applicable requirement needs to be submitted every 6 months, at a minimum. Finally, the permit needs to include a notification and reporting process for permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

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

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

6NYCRR 209 .

This condition says that as long as the facility is in compliance with the more stringent regulation of 40 CFR 63, subpart LL, then it is in compliance with this regulation.

6NYCRR 209 .4

This condition says emissions other than Fluorides from primary aluminum reduction plants are regulated by all other Parts of this subchapter.

6NYCRR 212 .

This condition says the facility shall operate and maintain it's particulate control devices at the plant according to the operation and maintenance plan submitted to the department.

6NYCRR 212 .10 (c) (1)

This condition says the emission of NOx or VOC below 3 pounds per hour from an emission source will not require a Reasonably available control technology (RACT) plan.

6NYCRR 212 .10 (c) (3)

Acceptable NOx RACT compliance plans submitted to the Department will become part of the State SIP.

6NYCRR 212 .10 (c) (4) (i)

VOC removal efficiency greater than 81% is considered RACT.

6NYCRR 212 .10 (f)

Owners and/or operators must submit a RACT compliance plan with each application for a permit to construct and implement this plan when operation commences. A RACT analysis may not be required if emission levels fall below certain limits.

6NYCRR 212 .11 (b) (1)

This condition says the facility must monitor and maintain the proper temperature on thermal incinerators to ensure proper destruction of Volatile Organic Compounds.

6NYCRR 212 .3 (b)

This rule requires existing sources (in operation on or before July 1, 1973) of solid particulates with environmental rating of B or C which are not subject to Table 5 "Processes for which Permissible Emission Rate is Based on Process Weight, to be limited to an particulate emission rate not to exceed 0.15 grains per dry standard cubic foot.

6NYCRR 212 .4 (a)

This rule requires compliance with the degree of control specified in Tables 2, 3 and 4 for new (after July

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1, 1973) process emission sources.

6NYCRR 212 .4 (c)

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

6NYCRR 212 .5 (d)

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

6NYCRR 212 .6 (a)

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

6NYCRR 212 .9 (d)

This condition sets forth how the facility shall figure the permissible emission rate of particulates.

6NYCRR 225-1.2 (d)

The sulfur-in-fuel limitations for residual and distillate oil and for solid fuel are listed in Tables 1,2 and 3 or 6 NYCRR Part 225-1.2(c), (d) and (e)

6NYCRR 225-1.7 (c)

This regulation requires requires that measurements be made daily of the rate of each fuel burned, the gross heat content and ash content of each fuel burned (determined at least once per week), and the average electrical output (daily) and hourly generation rate.

6NYCRR 225-1.7 (d)

This regulation requires that data collected pursuant to 6 NYCRR Part 225-1.7 be tabulated and summarized in a form acceptable to the commissioner, and must be retained for at least three years.

6NYCRR 225-1.7 (e)

This regulation requires source owners subject to 6 NYCRR Part 225-1 to submit a written report of the fuel sulfur content exceeding the applicable sulfur-in-fuel limitation, or of measured emissions exceeding the applicable equivalent emission rate, and the nature and cause of such excesses if known, for the calendar quarter

6NYCRR 225-1.8 (a)

Upon request the owner or operator of a facility which purchases and fires coal or oil shall submit reports to the commissioner containing a fuel analysis, information on the quantity of the fuel received, burned, and results of any stack sampling, stack monitoring and any other procedures to ensure compliance with the provisions of 6 NYCRR Part 225-1. All records shall be available for a minimum of three years

6NYCRR 225-1.8 (d)

This requires that sampling, compositing and analysis of fuel samples must be done in accordance with

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methods acceptable to the commissioner.

6NYCRR 226 .

This regulation sets forth the equipment specifications, operating requirements and general requirements for facilities that perform solvent metal cleaning.

6NYCRR 226 .2

This reference provides the general requirements that owners and operators of solvent metal cleaning machines must comply with in addition to the other applicable requirements in this part. The general requirements include the proper storage, transfer, and disposal of solvents, the integrity of the equipment must be maintained, a summary of the operating procedures must be displayed, covers are to be closed when a degreaser is not used, and a record of solvent consumption must be maintained for one year.

6NYCRR 226 .3 (a)

This reference requires cold cleaning degreasers to have a cover, internal drainage system and a control system to limit VOC emissions from the unit unless the solvent being used has a low vapor pressure or the solvent is not heated above a specific temperature. A water blanket that lays on top of the solvent in the degreaser or a unit that is designed so that the height of the unit is much greater than the width of the opening, which will minimize VOC emissions, are considered acceptable methods of controlling VOC emissions.

6NYCRR 227 .2 (b) (1)

This regulation is from the 1972 version of Part 227 and still remains as part of New York's SIP. The rule establishes a particulate limit of 0.1 lbs/mmBtu based on a 2 hour average emission for any oil fired stationary combustion installation.

6NYCRR 227-1.3 (a)

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

6NYCRR 227-1.4 (a)

Subdivisions (a) and (f) of this section (227-1.4) have not been approved by EPA and have not been included in the NYS SIP.

6NYCRR 227-1.4 (b)

This regulation requires the specific contents of excess emissions reports for opacity from facilities that employ continuous opacity monitors (COMs).

6NYCRR 227-1.6 (a)

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

6NYCRR 227-1.6 (b)

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

6NYCRR 227-1.6 (c)

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

6NYCRR 227-1.6 (d)

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

6NYCRR 227-1.7

This condition says emission data for this emission unit must be made available to the Department upon request and the testing methods must be acceptable to the Department.

6NYCRR 227-2.4 (b) (1)

This paragraph provides a table for gas only, gas and/or oil firing capable, pulverized coal, and overfeed stoker emission limits. Compliance is determined by a stack test.

6NYCRR 227-2.4 (g) (3)

This subdivision is meant to require RACT on a significant combustion source which has no RACT provisions. This includes those units which have been "exempted." Rather than treat a significant source that falls below the size cutoffs of other subdivisions in this section as requiring no control, if the unit emits over 3 lb/hr uncontrolled or more than 15 lb./day.

As an example, a 300 hp internal combustion engines which is uncontrolled is exempt from needing a permit upstate. However, this unit emits about 7 lb/hr. This unit is a significant source of NO_x and should therefore have RACT applied.

6NYCRR 228 .10

The requirements for handling, storage, and disposal of VOCs are provided in this section.

6NYCRR 228 .2

This reference provides definitions for the important terms used in this rule.

6NYCRR 228 .4

This reference requires the opacity of the emissions from a facility, with surface coating processes subject to this rule, to be less than 20 % during any consecutive six minute period. Opacity limits are used primarily to control the quantity of particulates released from a source.

6NYCRR 228 .5 (a)

This reference provides the recordkeeping requirements for emission sources subject to this rule. All of these records must be kept for at least five years and provided to the Department upon request.

6NYCRR 228 .5 (b)

The analytical methods in 40 CFR 60, Appendix A, Method 24 must be used to determine the volatile content, water content, density, volume of solids, and weight of solids of the surface coatings



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6NYCRR 228 .5 (d)

This reference requires facilities to allow Department staff to enter the facility in order to take coating samples during reasonable business hours.

6NYCRR 228 .7

Table 1 provides a list of surface coating processes and the corresponding allowable VOC content of the coatings used in each process.

6NYCRR 231-2.2 (d) (3)

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

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

6NYCRR 257-8.

This condition says the facility must monitor the fluoride levels in the vegetation to ensure compliance with the established limit and references the plan for doing so.

ECL 19-301.

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.

Non Applicability Analysis

List of non-applicable rules and regulations:

Location Facility/EU/EP/Process/ES	Short Description	Regulation
M-00001	General Process Emission Sources - emissions from new processes and/or modifications	6NYCRR 212.4(c)
Reason: This emission unit will be complying with the PM emission limits contained in the Secondary Aluminum Production NESHAP (40 CFR Part 63 Subpart RRR) and thus is exempt from the PM limits contained in 6 NYCRR Part 212.4(c) as allowed by 6 NYCRR Part 212.5(d).		
M-00002	General Process Emission Sources - emissions from new processes and/or modifications	6NYCRR 212.4(c)
Reason: This source is exempt from permitting requirements per 6 NYCRR Part 201-3.3(c)(45). As such the VOC RACT requirements of 6 NYCRR Part 228 for surface coating processes do not apply.		

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NOTE: Non-applicability determinations are cited as a permit condition under 6 NYCRR Part 201-6.5(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 MASSENA OPERATIONS (WEST PLANT):

Location Facility/EU/EP/Process/ES	Type of Monitoring	Cond No.
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Reason: This source is exempt from permitting requirements per 6 NYCRR Part 201-3.3(c)(45). As such the VOC RACT requirements of 6 NYCRR Part 228 for surface coating processes do not apply.

Reason: The requirement for a SO2 CEMS does not apply since Alcoa meets the exception contained in 6 NYCRR Part 225-1.7(b)(2) by virtue of performing the sampling and recordkeeping contained in the permit condition cited 6 NYCRR Part 225-1.8(a).

Reason: This emission unit will be complying with the PM emission limits contained in the Secondary Aluminum Production NESHAP (40 CFR Part 63 Subpart RRR) and thus is exempt from the PM limits contained in 6 NYCRR Part 212.4(c) as allowed by 6 NYCRR Part 212.5(d).

A-00002/F0031/MRS/AF031	Applicability and compliance.	6NYCRR 228.1(a)B-A-
00002/F0065/MRS/AF065	Applicability and compliance.	6NYCRR 228.1(a)00001/-
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M-00001	intermittent emission testing	212
M-00002	intermittent emission testing	213
W-00001/-/WWT	intermittent emission testing	199
W-00001/-/WWT	intermittent emission testing	200
FACILITY	intermittent emission testing	12
FACILITY	work practice involving specific operations	208
M-00001	record keeping/maintenance procedures	78
M-00002	record keeping/maintenance procedures	97
FACILITY	intermittent emission testing	13
S-00001/-/POT	record keeping/maintenance procedures	116
B-00001/-/OIL	monitoring of process or control device parameters as surrogate	40
B-00001/-/OIL	record keeping/maintenance procedures	41
B-00001/-/OIL	record keeping/maintenance procedures	44
P-00001/-/PWS	record keeping/maintenance procedures	115
B-00001/00001/OIL	intermittent emission testing	52
B-00001/00002/OIL	intermittent emission testing	54
FACILITY	monitoring of process or control device parameters as surrogate	17
A-00001/F078A/HT2/AF78A	monitoring of process or control device parameters as surrogate	29
A-00001/F078B/HT2/AF78B	monitoring of process or control device parameters as surrogate	30
B-00001/-/OIL/B0001	monitoring of process or control device parameters as surrogate	47
B-00001/-/OIL/B0002	monitoring of process or control device parameters as surrogate	48
B-00001/-/OIL/B0003	monitoring of process or control device parameters as surrogate	49
B-00001/-/OIL/B0004	monitoring of process or control device parameters as surrogate	50
B-00001/00001/GAS	monitoring of process or control device parameters as surrogate	51
B-00001/00002/GAS	monitoring of process or control device parameters as surrogate	53
B-00001/-/OIL	monitoring of process or control device parameters as surrogate	209
B-00001/-/OIL	record keeping/maintenance procedures	46
B-00001	intermittent emission testing	39
FACILITY	record keeping/maintenance procedures	18
D-00001/-/PRT	record keeping/maintenance procedures	76
D-00001/-/PRT	record keeping/maintenance procedures	71
D-00001/-/PRT/DF073	monitoring of process or control device parameters as surrogate	77
D-00001/-/PRT	record keeping/maintenance procedures	72
D-00001/-/PRT	work practice involving specific operations	75
C-00001	intermittent emission testing	55
C-00001	intermittent emission testing	56
C-00002	intermittent emission testing	64
C-00002	intermittent emission testing	65
FACILITY	record keeping/maintenance procedures	19

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 - 15, 17, 18, 29- 33, 39, 51, 53, 61, 67- 69, 71, 75, 116, 195, 196, 198, 199, 200, 206, 207, and 210-213.

Condition #11: In order to show compliance with the opacity and particulate limit in 6 NYCRR part

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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 #19: 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).

Condition #40, 41, 44, 46, 47-50, 52, 54, and 209: 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 #56: The facility will test at least once during the term of the permit 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 #55: The facility will test at least once during the term of the permit 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.

0 Condition #57: The facility will test at least once during the term of the permit 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 #58 & #59- 6 NYCRR Part 212.11(b)(1): In order to ensure at least 81% destruction of VOCs from emission source C029, the temperature of the thermal incinerator must maintain a 2 hour block average temperature of 1200 degrees Fahrenheit. This is considered Reasonably Available Control Technology (RACT) for VOCs.

Condition #60: 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 #62: 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 #63- 212.10(f): A RACT analysis was completed on emission unit C-00002. The chip dryer and melter both employ low NOx burners and staged air combustion to reduce emissions of NOx, which is considered RACT.

Condition #64-6 NYCRR Part 231-2.2(d)(3): Testing shall be completed at least once during the term of the permit 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).

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Condition #65- 6 NYCRR Part 231-2.2(d)(3): Testing shall be completed at least once during the term of the permit to show the emission rate of NO_x 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 #66: Testing shall be completed at least once during the term of the permit 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 #70- 6 NYCRR 212.11(b)(1): The thermal incinerator (emission source C044B) must maintain a 1 hour average temperature of 1400 degrees Fahrenheit to ensure at least 81% destruction of VOCs. This configuration is considered RACT for VOCs.

Conditions #71-#77- 6 NYCRR Part 228: The requirement to restrict the VOC content of surface coatings and be able to show it through manufacturer specifications or calculations as specified in the regulation, is enough to show compliance with this regulation.

Condition #79 & #98- 40 CFR 63.1506(d), Subpart RRR: The facility has chosen to apply 40 CFR 63 Subpart RRR to particulate emissions from emission units M-00001 and M-00002. Compliance with 40 CFR 63, subpart RRR for particulate emissions will be considered to be compliant with 6 NYCRR 212.5(d). The applicability date for all of subpart RRR is March 24, 2003. The conditions under 40 CFR 63, subpart RRR are written as directed by the regulation itself. (See all conditions under Subpart RRR)

Condition #95 & #96- 6 NYCRR 212.10(c)(3): The #15 melting and holding furnaces and the # 32 melting and holding furnaces all employ low NO_x burners which is considered RACT for the emission of NO_x.

Condition #115- 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 #175 & #176- 6 NYCRR Part 212.10(c)(3): A RACT analysis was completed in 1998 and it was shown that additional VOC or NO_x 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 #197- 40 CFR 52.21(i)(1), Subpart A: 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 #203: 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 #208- 6 NYCRR 212.5(d): The Department has approved a BACT analysis for the

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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.