

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 7-3556-00001/00097    Modification Number: 5**



**09/07/2005**

**Facility Identification Data**

Name: NOVELIS CORPORATION  
Address: 448 CO RTE 1A  
OSWEGO, NY 13126-0028

**Owner/Firm**

Name: NOVELIS CORPORATION  
Address: 448 COUNTY ROUTE 1A  
OSWEGO, NY 13126, USA  
Owner Classification: Corporation/Partnership

**Permit Contacts**

Division of Environmental Permits:  
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448 CO RTE 1A PO BOX 28  
OSWEGO, NY 13126-0028

**Permit Description**

**Introduction**

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

**Summary Description of Proposed Project**

The project consists of the installation and operation of two (2) melting/holding furnaces and two (2) in-line fluxers for the casting of aluminum sheet ingot. The furnaces shall be Secondary Aluminum MACT Group 1 furnaces, with molten aluminum, prime, internal, and external scrap inputs. The furnaces shall be designated 760 (60 tonne furnace) and 720 (20 tonne furnace). Both furnaces will transfer through in-

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line fluxers prior to casting. The in-line fluxers will utilize chlorine gas fed from existing onsite facilities.

**Attainment Status**

NOVELIS CORPORATION is located in the town of SCRIBA in the county of OSWEGO. 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.)

| <b>Criteria Pollutant</b>                   | <b>Attainment Status</b>          |
|---|-----------------------------------|
| Particulate Matter (PM)                     | ATTAINMENT                        |
| Particulate Matter < 10µ in diameter (PM10) | ATTAINMENT                        |
| Sulfur Dioxide (SO2)                        | ATTAINMENT                        |
| Ozone*<br>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**

This facility is an integrated aluminum sheet manufacturing facility with an annual production capacity of approximately 1.7 billion pounds. The facility has both pre and post consumer aluminum scrap recycling facilities comprised of scrap shredding, processing and delacquering operations, scrap melting and direct-chill ingot casting. These facilities convert scrap aluminum into aluminum sheet ingots weighing an average of 30,000 lb. Each. Several of the aluminum scrap melting furnaces have dual-fuel capability and burn both fuel oil and natural gas. The plant also includes ingot preparation facilities which machine the top and bottom surfaces of the aluminum ingots in preparation for hot rolling. Twenty-two natural gas-fired homogenizing furnaces and one natural gas-fired pusher furnace are used to preheat the machined ingots in preparation for hot rolling. The facility's hot rolling operation consists of one, single-stand reversing mill and one, four-stand finishing mill. The reversing mill reduces the thickness of the aluminum ingots from up to 30" thick to approx. 1" thick by passing the ingot back and forth through a set of large steel rollers which comprise the reversing mill. An oil-in-water emulsion is sprayed on the steel rolls to provide cooling and lubrication for the rolling process. The four-stand finishing mill reduces the thickness of the aluminum slab from the reversing mill to a sheet having a thickness of approx. 1/10 inch. The edges of the sheet are also trimmed in this finishing mill and the sheet is rolled onto a coil. Two shears are positioned between the two rolling mills to crop the ends of the aluminum slab at various

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stages in the rolling process. An oil-in-water emulsion is also sprayed on the steel rolls in the finishing mill to provide cooling and lubrication for the rolling process. Some of the hot rolled aluminum coils produced in the hot rolling operation are shipped to other facilities while the remainder are processed in the facilities' cold rolling mill. The facility has two, single-stand cold rolling mills which use steel rolls, similar to the hot rolling mill, to reduce the thickness of aluminum sheet in coil form. A coil of aluminum is fed through the cold rolling mill where its thickness is reduced by approx. 50%. The sheet is wound back into a coil after exiting the mill's rolls. A technical white oil formulation is sprayed onto the steel rolls to provide cooling and lubrication for the cold rolling process. Coils are rolled repeatedly through the cold mills to achieve the desired sheet thickness. Following cold rolling, coils may be placed in annealing furnaces for heat treatment or moved directly to finishing lines for final processing. At the finishing lines the aluminum coils are uncoiled (in some cases a lubricant is then applied to the sheet), the sheet is then cut to the appropriate width and length and coiled at the end of the finishing line. The finished coils are transferred to a packaging line where they are packaged for shipment to the customer. Aluminum sheet produced by the facility's cold rolling mills include beverage container sheet as well as sheet for building products, transportation applications and other.

### Permit Structure and Description of Operations

The Title V permit for NOVELIS CORPORATION is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

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

[NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

- combustion - devices which burn fuel to generate heat, steam or power
- incinerator - devices which burn waste material for disposal
- control - emission control devices
- process - any device or contrivance which may emit air contaminants that is not included in the above categories.

NOVELIS CORPORATION is defined by the following emission unit(s):

Emission unit RC2HOT - This is an aluminum scrap delacquering and melting process consisting of a rotary kiln, two sidewall aluminum furnaces and various material separation and handling systems.

Various maintenance, testing and office facilities are also included in this emission unit. VOC emissions

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from the kiln are controlled by an afterburner and HCl emissions are controlled using a sodium bicarbonate injection system. Particulate emissions from this emission unit are collected by a ventilation system consisting of hoods, enclosures, ductwork, fan and baghouse. Emission points included in this emission unit are: RCH01, RCBP1, RCBP2 and RCBP3. RCBP1, RCBP2 and RCBP3 are emergency vents and exempt as defined by 6 NYCRR part 201-3.2, sources RC2FD and RC2FE associated with emission point RCH01 are equipped with Bloom Gemini low NOx regenerative burners in fulfillment of RACT requirements. These burners were replaced with bloom 1151-200 ultra3 low NOx lumiflame regenerative burners in 1999 which further reduced NOx emissions. Emission tests of these burners as installed by the manufacturer on emission unit 000RC1 confirmed NOx emissions of 0.045 lb/mmBTU for natural gas and 0.052 lb/mmBTU for oil. The RC2CLD and RC2HOT emission units were constructed simultaneously as a single project and emissions from both units were combined in assessing applicability of 6 NYCRR 231 and Federal PSD. Federally enforceable emission limits were established to maintain de minimis emission levels for the total emissions from both units.

Emission unit RC2HOT is associated with the following emission points (EP):

RCB01, RCBP1, RCBP2, RCBP3, RCH01

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

Process: R2H is located at GROUND, Building RECYCLE 2 - This is an aluminum scrap delacquering and melting process consisting of a rotary kiln, two side-well aluminum melting furnaces and various material separation and handling systems. Various maintenance, testing and office facilities are also included in this process. VOC emissions from the kiln are controlled by an afterburner and HCl emissions are controlled using a sodium bicarbonate injection system. Particulate emissions from this emission unit are collected by a ventilation system consisting of hoods, enclosures, ductwork, fan and baghouse. Emission points associated with this process include: RCH01, RCBP1, RCBP2 and RCBP3. RCBP1, RCBP2 and RCBP3 are emergency vents and exempt as defined by 6 NYCRR part 201-3.2. RCB01 is an exhaust from a sodium bicarbonate bin vent filter and is also exempt as defined by 6 NYCRR part 201-3.2. annual NOx emissions are limited to 39.9 tons/yr by permit condition.

Emission unit 000RC1 - This is an aluminum scrap melting process consisting of two, sidewell melting furnaces fueled by oil and/or natural gas, one natural gas fired melting furnace, one aluminum sow drying oven; and scrap handling, shipping/receiving, and molten metal handling equipment. Various maintenance, testing and office facilities are also included in this emission unit. The aluminum scrap melted in the two sidewell furnaces may contain small quantities of oil or lacquer coatings. Emissions from the furnace side-well melting systems are collected by a ventilation system consisting of hoods, enclosures, ductwork, fan and baghouse. An aluminum scrap drying oven is also included in this unit. This emission unit includes emission points NR1F0, NR1F1, NR1G0, NR1G1, 00R21, 000E2 and 0SOW2 as well as the following emission points and associated sources which were physically removed in 1996: 00151, 00152, 0SDC1, 0SDC2, 0SDC3. Sources 0SOW2 and 000E2 are exempt from RACT requirements pursuant to 6 NYCRR 212.10(c)(1) due to their ERP of <3.0 lb/hr. Sources 0RC1F and 0RC1G associated with emission points NR1F0 and NR1G0 are equipped with bloom 1150-150 ultra 3 low NOx lumiflame regenerative burners in fulfillment of RACT requirements. Emission tests of these burners as installed by the manufacturer confirmed NOx emissions of 0.045 lb/mmBTU for natural gas and 0.052 lb/mmBTU for oil.

Emission unit 000RC1 is associated with the following emission points (EP):

000E2, 00R21, 0SOW2, NR1F0, NR1F1, NR1G0, NR1G1

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

Process: 0BH is located at Building RECYCLE 1 - This process involves the operation of the melting

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furnace F and G side wells and their associated baghouse (RC1BH).

Process: MHF is located at Building RECYCLE 1 - This process involves main hearth operation of Melting Furnace F.

Process: MHG is located at Building RECYCLE 1 - This process involves main hearth operation of Melting Furnace G.

Process: RC1 is located at GROUND, Building RECYCLE 1 - This is an aluminum scrap melting process consisting of two, side-well melting furnaces fueled by oil and/or natural gas, one natural gas fired melting furnace, one aluminum sow drying oven and scrap handling and molten metal handling equipment. Various maintenance, testing and office facilities are also included in this emission unit. The aluminum scrap melted in these furnaces may contain small quantities of oil or lacquer coatings.

Emissions from the furnace side-well melting systems are collected by a ventilation system consisting of hoods, enclosures, ductwork, fan and baghouse. Emission points associated with this process include: NR1F0, NR1F1, NR1G0, NR1G1, 00R21, 000E2 and 0SOW2 as well as the following emission points which were physically removed in 1996: 00151, 00152, 0SDC1, 0SDC2, 0SDC3.

Process: SOW is located at Building RECYCLE 1 - This process involves operation of the sow drying furnace.

Emission unit 000DC7 - The 0-00DC7 emission unit consists of two (2) melting/holding furnaces and two (2) in-line fluxers for the processing of aluminum scrap and molten aluminum.

Emission unit 000DC7 is associated with the following emission points (EP):

EP720, EP760

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

Process: P01 is located at Building REMELT - A 60 metric ton melter/holder Group 1 furnace fired by natural gas, with an in-line fluxer.

Process: P02 is located at Building REMELT - A 60 metric ton melter/holder Group 1 furnace with an in-line fluxer and a 20 metric ton melter/holder Group 1 furnace with an in-line fluxer.

Process: P03 is located at Building REMELT - A 20 metric ton melter/holder Group 1 furnace fired by natural gas, with an in-line fluxer.

Emission unit RC2CLD - This is an aluminum scrap shredding and separation process consisting of a bale breaker, rotary shears, a trommel classifier, magnetic separators, air classifiers, screens, conveyors, shipping/receiving, and storage hoppers. Various maintenance, testing and offices are also included in this emission unit. Particulate emissions from this emission unit are collected by a ventilation system consisting of hoods, enclosures, ductwork, fan and baghouse. Emission point RCC01 is the only emission point in this emission unit. The RC2CLD and RC2HOT emission units were constructed simultaneously as a single project and emissions from both units were combined in assessing applicability of 6 NYCRR 231 and Federal PSD. Federally enforceable emission limits were established to maintain de minimis emission levels for the total emissions from both units.

Emission unit RC2CLD is associated with the following emission points (EP):

RCC01

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

Process: R2C is located at GROUND, Building RECYCLE 2 - This is an aluminum scrap shredding and separation process consisting of a bale breaker, rotary shears, a trommel classifier, magnetic separators, air classifiers, screens, conveyors and storage hoppers. Various maintenance, testing and offices are also included in this emission unit. Particulate emissions from this emission unit are collected by a ventilation system consisting of hoods, enclosures, ductwork, fan and baghouse. Emission point RCC01 is the only

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emission point associated with this process.

Emission unit OSCALP - This emission unit consists of the ingot scalper chip storage and conveying system. This unit includes two storage silos each controlled by a cyclone, also four screw conveyors and a chip bunker with individual cyclones controlled by a common baghouse.

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

CHIP1, SILO1, SILO2

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

Process: SC1 is located at Building REMELT - This process consists of a 300,000 lb. silo and a 50,000 lb. silo used to temporarily store scalper chips. Scalper chips are conveyed from the scalping operation through a dedicated high-efficiency cyclone and into one of the silos. Scalper chips are screw fed into a blower which conveys the chips to one of 5 downstream locations in process sc2.

Process: SC2 is located at Building RECYCLE 2 - Scalper chips conveyed from the silos are fed into one of four screw conveyors or a chip bunker each controlled by an individual high efficiency cyclone. The screw conveyors are cycled such that one conveyor is filled with chips while the other screw conveyor feeds chips into the furnace. Two screw conveyors feed directly into the D Furnace sidewell (existing) and two screw conveyors feed directly into the E Furnace sidewell (existing). The fifth cyclone is associated with a chip bunker that may be utilized if one or both of the furnaces are not operating. All five of the high efficiency cyclones associated with this process (SC2) are exhausted through a dust collector (CTBH1 rated for 0.01 grains/dscf (Emission Point CHIP1).

Emission unit 3ANEAL - THIS EMISSION UNIT CONSISTS OF AN ELECTRIC ANNEALING FURNACE USED FOR TEMPERING COILED ALUMINUM SHEET.

Emission unit 3ANEAL is associated with the following emission points (EP):

0ANL3

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

Process: 0F3 is located at Building COLD MILL - Annealing furnace #3 is an electric annealing furnace utilizing 36 elements @ 73 KW per heat element. The furnace will be used to temper coiled sheet metal to customer specifications.

Emission unit DROSS1 - THIS IS AN ALUMINUM DROSS COOLING, STORAGE AND HANDLING FACILITY. IN THIS OPERATION ALUMINUM DROSS CONTAINED IN METAL PANS IS COVERED WITH SALT OR INERT GAS TO MINIMIZE OXIDATION DURING COOLING. FOLLOWING COOLING THE DROSS IS TRANSFERRED TO TEMPORARY STORAGE BINS WHICH ARE SUBSEQUENTLY DUMPED INTO TRUCKS OR RAIL CARS FOR SHIPMENT TO OFF-SITE RECYCLING OPERATIONS. EMISSION POINT 0DCR3 IS THE ONLY EMISSION POINT IN THIS EMISSION UNIT.

Emission unit DROSS1 is associated with the following emission points (EP):

0DCR3

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

Process: DRS is located at GROUND, Building DROSS - THIS IS AN ALUMINUM DROSS COOLING, STORAGE AND HANDLING FACILITY. IN THIS OPERATION ALUMINUM DROSS CONTAINED IN METAL PANS IS COVERED WITH SALT OR INERT GAS TO MINIMIZE OXIDATION DURING COOLING. FOLLOWING COOLING THE DROSS IS TRANSFERRED TO TEMPORARY STORAGE BINS WHICH ARE SUBSEQUENTLY DUMPED INTO TRUCKS OR RAIL CARS FOR SHIPMENT TO OFF-SITE RECYCLING OPERATIONS. EMISSION POINT

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0DCR3 IS THE ONLY EMISSION POINT ASSOCIATED WITH THIS PROCESS.

Emission unit COLD88 - THIS PROCESS CONSISTS OF AN 88" WIDE ALUMINUM COLD ROLLING MILL, SHEARS, TRIMMERS, TENSION LEVELERS, SLITTERS, LUBRICATION SYSTEMS, OIL FILTRATION AND DISTILLATION EQUIPMENT AND ASSOCIATED MATERIAL HANDLING AND PACKAGING SYSTEMS. VARIOUS MAINTENANCE, TESTING AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. IN THIS PROCESS COILED ALUMINUM SHEET IS ROLLED TO A REDUCED THICKNESS PRODUCING COILS OF ALUMINUM SHEET. THESE COILS ARE SUBSEQUENTLY PROCESSED THROUGH ANNEALING, TRIMMING, SLITTING AND/OR LUBRICATING OPERATIONS PRIOR TO PACKAGING IN PREPARATION FOR SHIPMENT TO THE CUSTOMER. EMISSIONS FROM THE VARIOUS PROCESS OPERATIONS ARE BY VENTILATION SYSTEMS CONSISTING OF HOODS, ENCLOSURES, DUCTWORK, FANS INERTIAL SEPARATORS AND/OR EXHAUST STACKS. EMISSION POINTS OCM88, 00QDB AND 0ANL2 ARE INCLUDED IN THIS EMISSION UNIT. THIS EMISSION UNIT UTILIZES BACT FOR VOC EMISSIONS CONTROL AS DEMONSTRATED IN ALCAN'S 1994 VOC RACT PLAN WHICH WAS SUBMITTED TO, AND APPROVED BY, DEC. BASED ON THE RECEIPT OF A COMPLETENESS DETERMINATION FROM DEC ON ITS PHASE 1 APPLICATION BEFORE 4/22/98, THE REQUIREMENT FOR CAM PLAN FOR EMISSION POINT OCM88 IS DEFERRED UNTIL TITLE V PERMIT RENEWAL.

Emission unit COLD88 is associated with the following emission points (EP):

00QDB, 0ANL2, OCM88

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

Process: C88 is located at GROUND, Building COLD MILL - THIS PROCESS CONSISTS OF A 88" WIDE ALUMINUM COLD ROLLING MILL, ANNEALING FURNACE, SHEARS, TRIMMERS, TENSION LEVELERS, SIFTERS, LUBRICATION SYSTEMS, OIL FILTRATION AND DISTILLATION EQUIPMENT AND ASSOCIATED MATERIAL HANDLING AND PACKAGING SYSTEMS. VARIOUS MAINTENANCE, TESTING AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. IN THIS PROCESS COILED ALUMINUM SHEET IS ROLLED TO A REDUCED THICKNESS PRODUCING COILS OF ALUMINUM SHEET. THESE COILS ARE SUBSEQUENTLY PROCESSED THROUGH ANNEALING, TRIMMING, SIFTING AND/OR LUBRICATING OPERATIONS PRIOR TO PACKAGING IN PREPARATION FOR SHIPMENT TO THE CUSTOMER. EMISSIONS FROM THE VARIOUS PROCESS OPERATIONS ARE BY VENTILATION SYSTEMS CONSISTING OF HOODS, ENCLOSURES, DUCTWORK, FANS, STACKS AND ASSOCIATED POLLUTION CONTROL EQUIPMENT. EMISSION POINTS 00CM88, 00QDB, AND 0ANL2 ARE ASSOCIATED WITH THIS PROCESS.

Emission unit COLD72 - THIS PROCESS CONSISTS OF A 72" WIDE ALUMINUM COLD ROLLING MILL, ANNEALING FURNACES, SHEARS, TRIMMERS, TENSION LEVELERS, SLITTERS, LUBRICATION SYSTEMS, OIL FILTRATION AND DISTILLATION EQUIPMENT AND ASSOCIATED MATERIAL HANDLING AND PACKAGING SYSTEMS. VARIOUS MAINTENANCE, TESTING AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. IN THIS PROCESS COILED ALUMINUM SHEET IS ROLLED TO A REDUCED THICKNESS PRODUCING COILS OF ALUMINUM SHEET. THESE COILS ARE SUBSEQUENTLY PROCESSED THROUGH ANNEALING, TRIMMING, SLITTING AND/OR LUBRICATING OPERATIONS PRIOR TO PACKAGING IN PREPARATION FOR SHIPMENT TO THE CUSTOMER. EMISSIONS FROM THE VARIOUS PROCESS OPERATIONS ARE BY

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VENTILATION SYSTEMS CONSISTING OF HOODS, ENCLOSURES, DUCTWORK FANS INERTIAL SEPARATORS AND/OR EXHAUST STACKS. EMISSION POINTS 0000A, 00QDA, 00QDD, AND 0ANL1 ARE INCLUDED IN THIS EMISSION UNIT. THIS EMISSION UNIT UTILIZES BACT FOR VOC EMISSIONS CONTROL AS DEMONSTRATED IN ALCAN'S 1994 VOC RACT PLAN WHICH WAS SUBMITTED TO, AND APPROVED BY

Emission unit COLD72 is associated with the following emission points (EP): 0000A, 00QDA, 00QDD, 0ANL1

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

Process: C72 is located at GROUND, Building COLD MILL - THIS PROCESS CONSISTS OF A 72" WIDE ALUMINUM COLD ROLLING MILL, ANNEALING FURNACE, SHEARS, TRIMMERS, TENSION LEVELERS, SIFTERS, LUBRICATION SYSTEMS, OIL FILTRATION AND DISTILLATION EQUIPMENT AND ASSOCIATED MATERIAL HANDLING AND PACKAGING SYSTEMS. VARIOUS MAINTENANCE, TESTING AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. IN THIS PROCESS COILED ALUMINUM SHEET IS ROLLED TO A REDUCED THICKNESS PRODUCING COILS OF ALUMINUM SHEET. THESE COILS ARE SUBSEQUENTLY PROCESSED THROUGH ANNEALING, TRIMMING, SIFTING AND/OR LUBRICATING OPERATIONS PRIOR TO PACKAGING IN PREPARATION FOR SHIPMENT TO THE CUSTOMER. EMISSIONS FROM THE VARIOUS PROCESS OPERATIONS ARE BY VENTILATION SYSTEMS CONSISTING OF HOODS, ENCLOSURES, DUCTWORK, FANS, STACKS AND ASSOCIATED POLLUTION CONTROL EQUIPMENT. EMISSION POINTS 0000A, 00QDA, 00QDD, AND 0ANL1 ARE ASSOCIATED WITH THIS PROCESS.

Emission unit 0GWATR - THIS UNIT CONSISTS OF A 400 CFM AIR STRIPPER ASSOCIATED WITH A GROUNDWATER REMEDIATION SYSTEM. EMISSION POINT GW001 IS THE ONLY EMISSION POINT IN THIS UNIT.

Emission unit 0GWATR is associated with the following emission points (EP): GW001

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

Process: GWR is located at Building INGOT PREP - THIS IS A GROUNDWATER REMEDIATION SYSTEM THAT OPERATES TO REMOVE OIL AND TRACE AMOUNTS OF CHLORINATED SOLVENTS FROM GROUNDWATER UNDER THE FOUNDATION OF THE INGOT PREP BUILDING. EMISSION POINT GW001 IS THE ONLY EMISSION POINT ASSOCIATED WITH THIS PROCESS.

Emission unit 0VENTG - THIS UNIT CONSISTS OF COMFORT VENTILATION SYSTEMS FOR ALL OPERATIONS AT THIS FACILITY. WHILE THE PRIMARY PURPOSE OF THESE VENTILATION SYSTEMS IS TO DISCHARGE HEAT GENERATED BY THE PROCESS, SMALL QUANTITIES OF FUGITIVE EMISSIONS MAY ALSO BE EMITTED THROUGH THESE VENTILATION SYSTEMS.

Emission unit HOTMIL - THIS PROCESS CONSISTS OF A MULTI-STAND ALUMINUM HOT ROLLING MILL, SHEARS, TRIMMERS, OIL FILTRATION AND TREATMENT, ULTRAFILTRATION AND ASSOCIATED MATERIAL HANDLING AND PACKAGING SYSTEMS. VARIOUS MAINTENANCE, TESTING AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. IN THIS PROCESS ALUMINUM INGOTS ARE ROLLED INTO ALUMINUM SHEET. EMISSIONS FROM THE VARIOUS PROCESS OPERATIONS ARE

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BY VENTILATION SYSTEMS CONSISTING OF HOODS, ENCLOSURES, DUCTWORK, FANS INERTIAL SEPARATORS AND/OR EXHAUST STACKS. EMISSION POINTS 00HMS, HM105, HM121, HM122 AND HM123 ARE INCLUDED IN THIS EMISSION UNIT. EMISSION POINTS HM105 AND HM106 ARE SUBJECT TO 6 NYCRR 212 VOC RACT REQUIREMENTS. ALCAN'S PROCESS SPECIFIC RACT DEMONSTRATION FOR THESE EMISSION POINTS WAS REVIEWED AND APPROVED BY DEC IN JANUARY 1996.

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

00HMS, HM105, HM106, HM121, HM122, HM123

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

Process: HOT is located at GROUND, Building HOT MILL - THIS PROCESS CONSISTS OF A MULTI-STAND ALUMINUM HOT ROLLING MILL, SHEARS, TRIMMERS, OIL FILTRATION AND TREATMENT, ULTRAFILTRATION AND ASSOCIATED MATERIAL HANDLING AND PACKAGING SYSTEMS. VARIOUS MAINTENANCE, TESTING AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. IN THIS PROCESS ALUMINUM INGOTS ARE ROLLED INTO ALUMINUM SHEET. EMISSIONS FROM THE VARIOUS PROCESS OPERATIONS ARE BY VENTILATION SYSTEMS CONSISTING OF HOODS, ENCLOSURES, DUCTWORK, FANS INTERTIAL SEPARATORS AND/OR EXHAUST STACKS. EMISSION POINTS 00HMS, HM105, HM106, HM121, HM122 AND HM123 AND ASSOCIATED WITH THIS PROCESS.

Emission unit REMELT - THIS IS AN ALUMINUM SCRAP MELTING AND CASTING FACILITY CONSISTING OF SEVERAL ALUMINUM SCRAP MELTING FURNACES, HOLDING FURNACES, MOLTEN METAL TREATMENT EQUIPMENT, MATERIAL HANDLING FACILITIES AND DIRECT-CHILL CASTING PITS. THESE FURNACES ARE FUELED BY OIL AND/OR NATURAL GAS. VARIOUS COOLING WATER SUPPLY AND TREATMENT SYSTEMS ARE ALSO ASSOCIATED WITH THIS UNIT. VARIOUS MAINTENANCE, TESTING AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. ALUMINUM SCRAP AND MOLTEN ALUMINUM ARE TRANSFERRED INTO THESE FURNACES. VARIOUS ALLOYING METALS ARE ADDED TO ADJUST THE COMPOSITION OF THE MOLTEN METAL. VARIOUS METAL TREATMENT OPERATIONS INCLUDING SALT AND/OR CHLORINE FLUXING, FILTRATION AND DEGASSING ARE CONDUCTED PRIOR TO CASTING THE METAL INTO ALUMINUM INGOTS. THIS UNIT IS COVERED UNDER A FEDERAL HAP EARLY REDUCTIONS PROGRAM TITLE V PERMIT NO. ERP-NY-0001. THIS UNIT INCLUDES EMISSION POINTS 00FH3, 00FH4, 00FH5, 00FM3, 00FM4, 00FM5 AND 00FM6. ALSO INCLUDED ARE THE FOLLOWING EMISSION POINTS THAT WERE PHYSICALLY REMOVED IN 1992: 00FH1, 00FH2, 00FM1 AND 00FM2. IN SATISFACTION OF RACT REQUIREMENTS THE FOLLOWING SOURCES ARE EQUIPPED WITH LOW NOX BURNERS: RMFM3 - NORTH AMERICAN 6385-12, RMFM4 - BLOOM 2-15-1-024 HOT AIR BURNERS, RMFM5 - BLOOM S-1501-024 HOT AIR BURNERS.

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

00FH3, 00FH4, 00FH5, 00FM3, 00FM4, 00FM5, 00FM6

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

Process: RMT is located at GROUND, Building REMELT - THIS IS AN ALUMINUM SCRAP MELTING AND CASTING FACILITY CONSISTING OF SEVERAL ALUMINUM SCRAP MELTING FURNACES, HOLDING FURNACES, MOLTEN METAL TREATMENT EQUIPMENT, MATERIAL HANDLING FACILITIES AND DIRECT-CHILL CASTING PITS. THESE FURNACES

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ARE FUELED BY OIL AND/OR NATURAL GAS. VARIOUS COOLING WATER SUPPLY AND TREATMENT SYSTEMS ARE ALSO ASSOCIATED WITH THIS UNIT. VARIOUS MAINTENANCE, TESTING AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. ALUMINUM SCRAP AND MOLTEN ALUMINUM ARE TRANSFERRED INTO THESE FURNACES. VARIOUS ALLOYING METALS ARE ADDED TO ADJUST THE COMPOSITION OF THE MOLTEN METAL. VARIOUS METAL TREATMENT OPERATIONS INCLUDING SALT AND/OR CHLORINE FLUXING, FILTRATION AND DEGASSING ARE CONDUCTED PRIOR TO CASTING THE METAL INTO ALUMINUM INGOTS. THIS PROCESS IS COVERED UNDER A FEDERAL HAP EARLY REDUCTIONS PROGRAM TITLE V PERMIT NO. ERP-NY001. EMISSION POINTS ASSOCIATED WITH THIS PROCESS INCLUDE: 00FH3, 00FH4, 00FH5, 00FM3, 00FM4, 00FM5 AND 00FM6. ALSO INCLUDED ARE THE FOLLOWING EMISSION POINTS THAT WERE PHYSICALLY REMOVED IN 1992: 00FH1, 00FH2, 00FM1 AND 00FM2.

Emission unit INPREP - THIS PROCESS CONSISTS OF SCALPER (MILLING) MACHINES AND ASSOCIATED ALUMINUM CHIP HANDLING SYSTEMS WHICH MACHINE SURFACES OF ALUMINUM INGOTS IN PREPARATION FOR HOT ROLLING. THE PROCESS ALSO INCLUDES SEVERAL NATURAL GAS OR PROPANE FUELED HOMOGENIZING FURNACES UTILIZED TO PREHEAT AND CONDITION ALUMINUM INGOTS PRIOR TO HOT ROLLING. VARIOUS MAINTENANCE AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. THE FOLLOWING EMISSION POINTS ARE INCLUDED IN THIS EMISSION UNIT: P0102, P0304, P0506, P0708, P0910, P112, P1314, P1516, P1718, P1920, P2122, PUSH1 AND 000E3.

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

P0102, P0304, P0506, P0708, P0910, P1112, P1314, P1516, P1718, P1920, P2122, PUSH1

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

Process: INP is located at GROUND, Building INGOT PREP - THIS PROCESS CONSISTS OF SCALPER (MILLING) MACHINES AND ASSOCIATED ALUMINUM CHIP HANDLING SYSTEMS WHICH MACHINE SURFACES OF ALUMINUM INGOTS IN PREPARATION FOR HOT ROLLING. THIS PROCESS ALSO INCLUDES SEVERAL NATURAL GAS OR PROPANE FUELED HOMOGENIZING FURNACES UTILIZED TO PREHEAT AND CONDITION ALUMINUM INGOTS PRIOR TO HOT ROLLING. VARIOUS MAINTENANCE AND OFFICE FACILITIES ARE ALSO INCLUDED IN THIS EMISSION UNIT. THE FOLLOWING EMISSION POINTS ARE ASSOCIATED WITH THIS PROCESS: P0102, P0304, P0506, P0708, P0910, P1112, P1314, P1516, P1718, P1920, P2122, PUSH1 AND 000E3.

**Title V/Major Source Status**

NOVELIS CORPORATION is subject to Title V requirements. This determination is based on the following information:

This facility is major for VOC, SO<sub>2</sub>, CO, HAP, and NO<sub>x</sub>.

**Program Applicability**

The following chart summarizes the applicability of NOVELIS CORPORATION with regards to the principal air pollution regulatory programs:

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

**NOTES:**

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

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

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

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

**NSPS** New Source Performance Standards (40 CFR 60) - standards of performance for

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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 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**

3341  
3353

SECONDARY NONFERROUS METALS  
ALUMINUM SHEET PLATE & FOIL

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### SCC Codes

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

| SCC Code    | Description  |
|-------------|--|
| 3-04-001-12 | SECONDARY METAL PRODUCTION<br>SECONDARY METAL PRODUCTION - ALUMINUM<br>Annealing Furnace   |
| 3-04-001-04 | SECONDARY METAL PRODUCTION<br>SECONDARY METAL PRODUCTION - ALUMINUM<br>Fluxing: Chlorination   |
| 3-04-001-60 | SECONDARY METAL PRODUCTION<br>SECONDARY METAL PRODUCTION - ALUMINUM<br>MATERIAL HANDLING   |
| 3-04-001-14 | SECONDARY METAL PRODUCTION<br>SECONDARY METAL PRODUCTION - ALUMINUM<br>Pouring/Casting   |
| 3-04-001-50 | SECONDARY METAL PRODUCTION<br>SECONDARY METAL PRODUCTION -<br>ALUMINUM<br>Rolling/Drawing/Extruding  |
| 3-04-001-31 | SECONDARY METAL PRODUCTION<br>SECONDARY METAL PRODUCTION - ALUMINUM<br>SECONDARY METAL PROD:SECONDARY ALUMINUM PROD:RAW MATERIAL<br>CHARGING |
| 3-04-001-13 | SECONDARY METAL PRODUCTION<br>SECONDARY METAL PRODUCTION - ALUMINUM<br>Slab Furnace  |
| 3-04-001-03 | SECONDARY METAL PRODUCTION<br>SECONDARY METAL PRODUCTION - ALUMINUM<br>Smelting Furnace/Reverberatory  |
| 5-04-104-20 | SITE REMEDIATION<br>SITE REMEDIATION - AIR STRIPPING OF GROUND WATER<br>AIR STRIPPING TOWER  |

### 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 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

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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                    |
| 051207-31-9 | 2,3,7,8-TETRACHLORODIBENZOFURAN (HAP)      |        | > 0 but < 10 tpy         |
| 001746-01-6 | 2,3,7,8-TETRACHLORODIBENZO-P-D IOXIN (HAP) |        | > 0 but < 10 tpy         |
| 007440-38-2 | ARSENIC (HAP)                              |        | > 0 but < 10 tpy         |
| 007440-43-9 | CADMIUM (HAP)                              |        | > 0 but < 10 tpy         |
| 000630-08-0 | CARBON MONOXIDE                            |        | >= 250 tpy               |
| 007782-50-5 | CHLORINE (HAP)                             |        | > 0 but < 10 tpy         |
| 007440-47-3 | CHROMIUM (HAP)                             |        | > 0 but < 10 tpy         |
| 000071-55-6 | ETHANE, 1,1,1-TRICHLORO (HAP)              |        | > 0 but < 10 tpy         |
| 000075-34-3 | ETHANE, 1,1-DICHLORO- (HAP)                |        | > 0 but < 10 tpy         |
| 000075-00-3 | ETHANE, CHLORO (HAP)                       |        | > 0 but < 10 tpy         |
| 000075-35-4 | ETHENE, 1,1-DICHLORO (HAP)                 |        | > 0 but < 10 tpy         |
| 0NY100-00-0 | HAP  |        | >= 50 tpy but < 100 tpy  |
| 007647-01-0 | HYDROGEN CHLORIDE (HAP)                    |        | >= 10 tpy                |
| 007664-39-3 | HYDROGEN FLUORIDE (HAP)                    |        | > 0 but < 10 tpy         |
| 007439-92-1 | LEAD (HAP)                                 |        | > 0 but < 10 tpy         |
| 007439-96-5 | MANGANESE (HAP)                            |        | > 0 but < 10 tpy         |
| 007439-97-6 | MERCURY (HAP)                              |        | > 0 but < 10 tpy         |
| 007440-02-0 | NICKEL METAL AND INSOLUBLE COMPOUNDS (HAP) |        | > 0 but < 10 tpy         |
| 0NY090-00-0 | OIL MIST                                   |        | >= 10 tpy but < 25 tpy   |
| 0NY210-00-0 | OXIDES OF NITROGEN                         | 650000 |                          |
| 0NY075-00-0 | PARTICULATES                               |        | >= 100 tpy but < 250 tpy |
| 0NY075-00-5 | PM-10                                      |        | >= 100 tpy but < 250 tpy |
| 007446-09-5 | SULFUR DIOXIDE                             | 828000 |                          |
| 0NY998-00-0 | VOC  |        | >= 100 tpy but < 250 tpy |

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**Item A: 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

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

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

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

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

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

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act

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and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

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

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

**Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 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.

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

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

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

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

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following:

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

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

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

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.
- ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- 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

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approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

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

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

**Item L: Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

**Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)**

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and

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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**

| <b>Location<br/>Facility/EU/EP/Process/ES</b> | <b>Regulation</b>     | <b>Short Description</b>  | <b>Condition</b>  |
|---|-----------------------|---|---|
| FACILITY                                      | ECL 19-0301           | Powers and Duties of the Department with respect to air pollution control | 1-12  |
| FACILITY                                      | 40CFR 52-A.21         | Prevention of Significant Deterioration                                   | 5-45,<br>5-46,<br>5-47,<br>5-48,<br>5-49,<br>5-50,<br>5-51,<br>5-52,<br>5-53,<br>5-54 |
| 0-00RC1/-/OBH                                 | 40CFR 52-A.21         | Prevention of Significant Deterioration                                   | 5-55  |
| 0-00RC1/-/MHF                                 | 40CFR 52-A.21         | Prevention of Significant Deterioration                                   | 5-56  |
| 0-00RC1/-/MHG                                 | 40CFR 52-A.21         | Prevention of Significant Deterioration                                   | 5-57  |
| 0-00RC1/-/RC1                                 | 40CFR 52-A.21         | Prevention of Significant Deterioration                                   | 5-58  |
| FACILITY                                      | 40CFR 63-D            |   | 60, 61  |
| FACILITY                                      | 40CFR 63-RRR.1501     | Compliance Dates  | 62  |
| FACILITY                                      | 40CFR 63-RRR.1505 (b) | Aluminum Scrap Shredder Emission Standards                                | 63  |
| FACILITY                                      | 40CFR 63-RRR.1505 (e) | Scrap dryer/delacquering kiln/decoating kiln: alternative limits          | 64, 65,<br>66, 67   |
| FACILITY                                      | 40CFR 63-RRR.1505 (i) | Group 1 Furnace Emission Standards  | 5-13,<br>5-15,<br>5-16  |
| FACILITY                                      | 40CFR 63-RRR.1505 (j) | In-Line Fluxer Emission Standards   | 5-17,<br>5-18   |

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|          |                           |   |            |
|----------|---------------------------|---|------------|
| FACILITY | 40CFR 63-RRR.1505 (k)     | Secondary Aluminum Processing Unit Emission Standard  | 68, 69, 70 |
| FACILITY | 40CFR 63-RRR.1505 (k) (1) | Secondary Aluminum NESHAP - SAPU Emission Standards for PM                                    | 5-19       |
| FACILITY | 40CFR 63-RRR.1505 (k) (2) | Secondary Aluminum NESHAP - SAPU emission limit for HCl                                       | 5-20       |
| FACILITY | 40CFR 63-RRR.1505 (k) (3) | Secondary Aluminum NESHAP - SAPU emission limits for dioxin/furan (D/F)                       | 5-14       |
| FACILITY | 40CFR 63-RRR.1506 (b)     | Operating requirements - Labeling   | 5-21, 71   |
| FACILITY | 40CFR 63-RRR.1506 (c)     | Capture /Collection System Operating Requirements   | 72         |
| FACILITY | 40CFR 63-RRR.1506 (d)     | Operating requirements - Feed/charge weight   | 5-22, 73   |
| FACILITY | 40CFR 63-RRR.1506 (e)     | Aluminum Scrap Shredder - Operating Requirements  | 74         |
| FACILITY | 40CFR 63-RRR.1506 (g)     | Scrap dryer/delacquering kiln/decoating kiln - Operating requirements                         | 75         |
| FACILITY | 40CFR 63-RRR.1506 (k)     | In-Line Fluxer Operating Requirements   | 5-23       |
| FACILITY | 40CFR 63-RRR.1506 (m)     | Operating Req'ts - Group 1 Furnace w/ Add-on Air Pollution Control Device                     | 76         |
| FACILITY | 40CFR 63-RRR.1506 (n)     | Operating requirments for Group 1 Furnaces w/out add-on air pollution control devices         | 5-24       |
| FACILITY | 40CFR 63-RRR.1506 (p)     | Operating requirements - Corrective Action  | 5-25, 77   |
| FACILITY | 40CFR 63-RRR.1510 (b)     | Monitoring and Compliance Requirements - OM&M Plan  | 5-26, 78   |
| FACILITY | 40CFR 63-RRR.1510 (c)     | Monitoring Requirements - Labeling  | 5-27       |
| FACILITY | 40CFR 63-RRR.1510 (e)     | Monitoring Requirements - Feed/charge weight  | 5-28       |
| FACILITY | 40CFR 63-RRR.1510 (f)     | Monitoring requirements - Fabric filters and lime injected fabric filters                     | 79         |
| FACILITY | 40CFR 63-RRR.1510 (g)     | Monitoring requirements - Afterburner   | 80         |
| FACILITY | 40CFR 63-RRR.1510 (h)     | Monitoring requirements - Fabric filter inlet temperature                                     | 81         |
| FACILITY | 40CFR 63-RRR.1510 (i)     | Monitoring requirements - Lime injection  | 82         |
| FACILITY | 40CFR 63-RRR.1510 (j)     | Monitoring Requirements - Total reactive flux injection rate                                  | 5-29, 83   |
| FACILITY | 40CFR 63-RRR.1510 (n)     | Monitoring requirements - Sidewell group 1 furnace with add-on air pollution control devices. | 84         |
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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 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

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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(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 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 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.

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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.

**Facility Specific Requirements**

In addition to Title V, NOVELIS CORPORATION has been determined to be subject to the following regulations:

40CFR 52-A.21

This citation applies to facilities that are subject to Prevention of Significant Deterioration provisions; ie: facilities that are located in an attainment area and that emit pollutants which are listed in 40 CFR 52.21(b)(23)(i) .

40CFR 63-D

This rule allows for a facility that is major for HAP emissions to make early emission reductions in order to gain 6 years to comply with a source specific NESHAP rule. This facility was issued an early reduction permit for its REMELT operation.

40CFR 63-RRR.1501

This section gives the compliance dates for the subpart.

40CFR 63-RRR.1505 (b)

This section states the emission standards for an aluminum scrap shredder.

40CFR 63-RRR.1505 (e)

This section states the emission standards for a scrap dryer/delacquering kiln/decoating kiln.

40CFR 63-RRR.1505 (i)

This sets the emission limit for particulates emitted from a group 1 furnace processing only clean charge. These limits are the standard against which the calculated emissions emitted from the Secondary Aluminum Processing Unit (SAPU) are held to.

40CFR 63-RRR.1505 (j)

This condition sets the SAPU related HCl and PM limits for an in-line fluxer using reactive flux.

40CFR 63-RRR.1505 (k)

This section of the secondary aluminum MACT contains the standards for secondary aluminum processing units (SAPU) which are defined as all the group 1 furnaces and in-line fluxers within the facility. Emission limits are provided in §1505(i) and (j) for each individual furnace or fluxer. The equations in this paragraph show how they are combined to arrive at an overall limit for the SAPU.

40CFR 63-RRR.1505 (k) (1)

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This condition sets the emission limit of Particulates from a secondary aluminum processing unit (SAPU). The calculation allows the emissions to be averaged across the equipment included in the SAPU.

40CFR 63-RRR.1505 (k) (2)

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

40CFR 63-RRR.1505 (k) (3)

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

40CFR 63-RRR.1506 (b)

This condition states a facility must label the equipment with the proper operating procedures in order to maintain compliance with this regulation.

40CFR 63-RRR.1506 (c)

Conditions under this rule incorporate the operating requirements for capture and collection systems associated with add-on air pollution control devices used to comply with the secondary aluminum production requirements.

40CFR 63-RRR.1506 (d)

This condition states the facility must be able to accurately measure the weight of the aluminum feed/charge or throughput in order to determine compliance with emission limits.

40CFR 63-RRR.1506 (e)

This section states the operating requirements for an aluminum scrap shredder with emissions controlled by a fabric filter considering the type of monitoring selected.

40CFR 63-RRR.1506 (g)

This section states the operating requirements for a scrap dryer/delacquering kiln/decoating kiln controlled by an afterburner and a lime-injected fabric filter.

40CFR 63-RRR.1506 (k)

Conditions under this rule incorporate the operating requirements for In-line fluxers, including control equipment.

40CFR 63-RRR.1506 (m)

Conditions under this rule incorporate operating requirements for group 1 furnaces with add-on air pollution control devices.

40CFR 63-RRR.1506 (n)

This condition requires how the group 1 furnace without add on pollution control equipment, should be operated to ensure compliance.

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40CFR 63-RRR.1506 (p)

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

40CFR 63-RRR.1510 (b)

This condition states a facility must have a written plan to operate and maintain all the equipment properly and it must be approved by the department.

40CFR 63-RRR.1510 (c)

This condition states that the facility must make sure the labels are properly attached to the equipment. The labels help the operators run the machines properly.

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 (f)

This section states the monitoring requirements for fabric filters and lime injected fabric filters, considering the type of monitoring chosen.

40CFR 63-RRR.1510 (g)

This section states the monitoring requirements using an afterburner as an emission control device.

40CFR 63-RRR.1510 (h)

This section states the requirements for monitoring inlet temperature to a fabric filter control device.

40CFR 63-RRR.1510 (i)

This section states the requirements for monitoring the lime injection system when using a lime-injected fabric filter as an emission control device.

40CFR 63-RRR.1510 (j)

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 (n)

This section states the requirements for monitoring molten metal level for a sidewall group 1 furnace during reactive fluxing.

40CFR 63-RRR.1510 (o)

This condition outlines what information should be included in a Site Specific Monitoring (SSM) Plan.

40CFR 63-RRR.1510 (q)

This condition allows for a calculation of scrap contaminant level rather than using a scrap inspection program.

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40CFR 63-RRR.1510 (s)

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

40CFR 63-RRR.1510 (t)

This condition tells the facility how to calculate the particulate matter (PM), Hydrogen Chloride (HCl) and Dioxins/Furans (D/F) emissions for each secondary aluminum processing unit (SAPU)

40CFR 63-RRR.1510 (u)

If each group 1 furnace and in-line fluxer meets its respective emission limit, then the averaging provided for in §63.1505(k)(1) through (3) is unnecessary. If the emission averaging is unnecessary, then the daily calculations of the average per §63.1510(t) are unnecessary as well.

40CFR 63-RRR.1511

This section states the general requirements for performance tests and compliance demonstrations.

40CFR 63-RRR.1512

This section states the requirements and procedures for conducting performance tests and compliance demonstrations.

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) and Hydrogen Chloride (HCl), and Dioxins and Furans (D/F). A furnace that melts only clean aluminum and in-line fluxers, must test for PM and HCl.

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.1512 (o)

This section states the procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate.

40CFR 63-RRR.1512 (r)

This condition requires the submission of labeling information with the notification of compliance status report.

40CFR 63-RRR.1513 (b)

This condition states the equation shown must be used to show compliance with the emission limits for Particulate Matter, Hydrogen Chloride, and Dioxins/Furans.

40CFR 63-RRR.1513 (d)

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

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.1515

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

40CFR 63-RRR.1515 (a) (6)

This condition requires 30 days notice to the Department before performing a visible emissions test and 60 days before a performance test.

40CFR 63-RRR.1515 (b)

This condition requires the owner/operator to submit a compliance status report to the Department. It outlines all the information to be submitted in the report to show compliance.

40CFR 63-RRR.1516

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

40CFR 63-RRR.1517

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

40CFR 63-RRR.1518

This section states that Appendix A of 40CFR 63 Subpart RRR contains portions of the general provisions (40CFR 63 Subpart A) that are also applicable.

6NYCRR 201-1.4 (d)

Reasonably Available Control Technology or RACT should be applied to prevent emissions from exceeding any applicable ambient air quality standard in the event of maintenance, start-up/shutdown or malfunction conditions.

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 201-6.5 (f)

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

6NYCRR 201-7.1

This subpart specifies how a source owner or operator may opt to avoid being subject to one or more applicable requirements to which the source or unit would have otherwise been subject, or where needed to establish an emission reduction credit by accepting federally-enforceable permit conditions restricting or capping emissions.

6NYCRR 212 .10

This condition requires facilities that have major NOx emissions to have RACT on sources that emit greater than or equal to 3 lb/hr of NOx.

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

This rule allows those sources which cannot achieve an overall removal efficiency of 81% or use coatings that don't exceed 3.5 lbs. VOC/gallon as applied for technological or economic reasons to use process specific reasonably available control technology (RACT) demonstrations for sources of volatile organic compounds (VOC) which are acceptable to the department and have been submitted to EPA for approval as a revision to the State Implementation Plan by the department.

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 (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 .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 (b)

This section refers to Table 2 which specifies the degree of control required for Gases and Liquid Particulate Emissions (Environmental Rating of A, B, C or D) and Solid Particulate Emissions (Environmental Rating A or D) but excluding Volatile Organic Compound Emissions in the New York City Metropolitan Area.

6NYCRR 225-1.2 (a) (2)

This regulation prohibits any person from selling, offering for sale, purchasing or using any fuel which contains sulfur in a quantity exceeding the limitations set forth in Table 1, Table 2, or Table 3 of this section.

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6NYCRR 225-2.4 (b)

This regulation sets the limits for the compounds that may be in Waste Fuel A or B. These are: PCB less than 50 parts per million (ppm); Total Halogens less than 1,000 ppm; Sulfur less than the limits in Part 225-1; Lead less than 250 ppm; and a minimum gross heat content of 125,000 BTU/Gallon

6NYCRR 227-1.3

This regulation requires a limitation and compliance monitoring for opacity from a stationary combustion installation.

6NYCRR 227-2.4 (d)

This rule specifies that the reasonably available control technology (RACT) requirement for small boilers (< or = 50 million BTUs/hr) at Title V facilities consists of an annual tune-up.

**Compliance Certification**

Summary of monitoring activities at NOVELIS CORPORATION:

| <b>Location<br/>Facility/EU/EP/Process/ES</b> | <b>Type of Monitoring</b>             | <b>Cond No.</b> |
|---|---------------------------------------|-----------------|
| FACILITY                                      | record keeping/maintenance procedures | 60              |
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**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 7-3556-00001/00097 Modification Number: 5**

**09/07/2005**

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**Basis for Monitoring**

6NYCRR Part 212.6(a)

Monitoring is required to ensure compliance with the opacity standard.

6NYCRR Part 212.4(cd)

Stack testing may be required by the Department depending on the performance of the control systems.

6NYCRR Part 210.10

At Major NOx emitting facilities, NOx TRACT is required for sources that have NOx emission rates greater than or equal to 3 lb/hr.

40 CAR 63 Subpart ERR

Sources meeting the applicability criteria for this rule are required to comply with the applicable requirements contained therein.