

SIP CONSTRUCTION & OPERATING PERMIT AND TITLE V 502(b)10 CHANGE APPLICATION REVIEW

Facility Name: Novelis, Inc.

City: Greensboro

County: Greene

AIRS #: 04-13-133-00001

Application #: 17126

Date SIP Application Received: December 07, 2006

Date Title V Application Received: NA

Permit No: 3341-133-0001-V-02-1

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Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and operate and Section 502(b)(10) change to the Part 70 source. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Sections 391-3-1-.03(1), 391-3-1-.03(2), and 391-3-1-.03(10). of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The following narrative is designed to accompany the permit and is presented in the same general order as the permit amendment. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

I. Facility Description

A. Existing Permits

Table 1 below lists the current Title V permit, all administrative amendments and minor and significant modifications to that permit, and any 502(b)(10) changes. Comments are listed in Table 2 below.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
3341-133-0001-V-02-0	April 20, 2005	X	

Table 2: Comments on Specific Permits

Permit Number	Comments
3341-133-0001-V-02-0	Administrative Amendment to for an ownership/name change from Alcan Aluminum Corporation to Novelis, Inc.

B. Regulatory Status

1. PSD/NSR/RACT

This facility is a major source under PSD [40 CFR 52.21] since it a listed source under 40 CFR 52.21(b)(1)(i)(a) that has the potential to emit 100 tons per year of a NSR pollutant. A regulated NSR pollutant is defined as any pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by the Administrator [or where allowable, his or her designee per Georgia Air Rule 391-3-1-.02(7)(a)4.(iv)]; any pollutant that is subject to any standard promulgated under section 111 [New Source Performance Standards] of the Clean Air Act; any Class I or II substance subject to a standard promulgated under or established by title VI [Stratospheric Ozone Protection] of the Clean Air Act (Act); or any pollutant that otherwise is subject to regulation under the Act: except that any or all hazardous air pollutants either listed in section 112 [Hazardous Air Pollutants] of the Act or added to the lists pursuant to section 112(b)(s) of the Act, which have not been delisted pursuant to section 112(b)(3) of the Act, are not regulated NSR pollutants unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a general pollutant listed under Section 108 [national standards for ambient concentrations of the criteria pollutants] of the Act [40 CFR Part 52.21(3)(d)(50)]. National ambient air quality standards have been promulgated for particulate matter emissions with an aerodynamic diameter less than or equal to 10 microns and particulate matter emissions with an aerodynamic diameter less than or equal to 2.5 microns. Potential particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀) emissions from the Novelis, Inc. facility are 100 tons per year or greater. In accordance with the April 5, 2005 memorandum from Stephen D. Page, US EPA, particulate matter emissions with an aerodynamic diameter less than or equal to 2.5 microns are assumed to equal particulate matter emissions with an aerodynamic diameter less than or equal to 10 microns making Novelis, Inc. a major source under 40 CFR 51.165.

Novelis, Inc. (then Alcan Aluminum Corporation) took PM emission limits to avoid triggering the PSD significance level for a facility modification in 1999. Novelis, Inc. is located in Greene County which is in attainment status for ozone and particulate matter with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}).

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility’s Title V status for the Pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Y	✓		
PM ₁₀	Y	✓		
SO ₂	Y			✓
VOC	Y			✓
NO _x	Y			✓
CO	Y			✓
TRS	Y			✓
H ₂ S	Y			✓
Individual	Y	✓		
Total HAPs	Y	✓		

II. Proposed Modification

A. Description of Modification

Novelis, Inc. proposes to install a new Rotogrinder shredder upstream of the existing shredders. The Rotogrinder will be considered a part of the existing Source Code ID SHRD and particulate emissions will be controlled by Baghouse 6, just as existing shredders are controlled. Therefore, all permit conditions associated with the Source Code ID SHRD will apply to the proposed Rotogrinder. The proposed Rotogrinder, like the existing shredders and Baghouse 6, is subject to 40 CFR 63, Subpart RRR “National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.” The Rotogrinder will have the capability to shred denser material than the existing shredders, and will have a maximum production capacity of 30,000 pounds per hour of aluminum scrap. The proposed installation of the Rotogrinder will not bottleneck the downstream decoater since Source ID SHRD already has a larger capacity than the decoater.

Novelis, Inc. also proposes to install a new 15,000 cubic foot per minute (cfm) baghouse, to be identified as Baghouse 7, to control particulate emissions, particularly hotter gases, previously controlled by Baghouse 3 and Baghouse 6. The proposed Baghouse 7 has a design control efficiency for particulate emissions of 99 percent. The following table is a summary of the controlled emission units pre-modification (installation of Baghouse 7) and post modification affected by the installation of Baghouse 7.

Table 4: Summary of Controlled Equipment Pre Installation and Post Installation of Baghouse 7

Baghouse ID	Pre Installation of Baghouse 7			Post Installation of Baghouse 7		
	Baghouse 3	Baghouse 6	Baghouse 7	Baghouse 3	Baghouse 6	Baghouse 7
Controlled Equipment	Compactor (1 of 2)	Apron Conveyor	NA ¹	Compactor (1 of 2)	Proposed Rotogrinder	Feed Chute to Dryer/Shaker ²
	Impact Breaker	Diverter Gate (pick-up is for both shredders)	NA ¹	Impact Breaker	Apron Conveyor	Decoater Exit Conveyor ³
	Air Knife	Conveyor 2	NA ¹	Air Knife	Diverter Gate (pick-up is for both shredders)	Dryer/Shaker/ Conveyor (Proposed Pick Up Point) ⁴
	Conveyor 3	Conveyor 2B	NA ¹	Conveyor 3	Conveyor 2	Decoater Entrance Conveyor (Proposed Pick Up Point) ⁴
	Weigh Hopper	Transfer point between Conveyor 2B and Air Knife	NA ¹	Weigh Hopper	Conveyor 2B	
	Elevating Conveyor	Compactor (1 of 2)	NA ¹	Elevating Conveyor	Transfer point between Conveyor 2B and Air Knife	
	Feed Chute to Dryer/Shaker	Decoater Exit Conveyor	NA ¹		Compactor (1 of 2)	

¹NA = Not Applicable: Baghouse 7 proposed.

²Equipment previously controlled by Baghouse 3.

³Equipment previously controlled by Baghouse 6.

⁴Areas where air is drawn from the inside of the plant to be exhausted to the outside to pull heat out of these areas of the plant.

B. Emissions Change

The Rotogrinder has a potential to emit 2.8 tons per year. However, according to the application, there are no potential increases in operation, production capacity, or emissions of criteria pollutants or hazardous air pollutants (HAPs) since the proposed Rotogrinder will operate under existing permitting limits associated with Source ID SHRD. Novelis, Inc. believes that the proposed Rotogrinder and Baghouse 7 installations are minor modifications under the PSD/NSR regulations.

C. Title I Modification

- PSD/NSR Applicability

This application involves (1) the installation of a Rotogrinder upstream from existing shredders at Source ID SHRD and (2) the installation of Baghouse 7 to indoor emissions. Novelis, Inc. submitted an application that includes both the Rotogrinder and Baghouse 7 installation. The Rotogrinder installation could result in a potential increase of particulate emissions as discussed in Section II B above. However, Baghouse 7 does not control emissions from the Rotogrinder and its construction is, therefore, not associated with the emission increase for the Rotogrinder. The last request for a major modification at the Novelis facility occurred in 1999. Baghouse 7 is being constructed for safety reasons and not to provide control capacity potentially eliminated (from Baghouse 6) as a result of the installation of the Rotogrinder. Therefore, in accordance with EPA's 1989 guidance, the criteria for aggregating projects, it has been determined that these modifications are two separate projects since all of the criteria are believed to have been satisfied. These modifications do not constitute major modifications under PSD/NSR.

- NSPS Modification

These modifications do not trigger the applicability of NSPS.

- NESHAP Modification

These modifications do not trigger the applicability of 40 CFR Part 61. The proposed Rotogrinder will be subject to 40 CFR Part 63, Subpart RRR *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production* like the existing shredders and Baghouse 6 currently are. Since no new 40 CFR Part 63 NESHAP is triggered by these modifications, it is believed that they do not warrant a modification to NESHAP applicability to this facility.

III. Facility Wide Requirements

A. Emission and Operating Caps

These modifications do not result in the addition or modification of any facility-wide emission or operating caps.

B. Applicable Rules and Regulations

These modifications do not result in the addition or modification of the applicability of any facility-wide rules and regulations.

C. Compliance Status

The facility is currently in compliance with all applicable Federal and State air regulations.

D. Operational Flexibility

There is no request for facility-wide operational flexibility associated with these modifications.

E. Permit Conditions

No permit conditions were added or modified in Section 2.0 of the Permit as a result of these modifications.

IV. Regulated Equipment Requirements

A. Brief Process Description

The proposed Rotogrinder, like the existing shredders currently permitted under Source ID SHRD, reduce scrap aluminum for the aluminum recycling process conducted at the Novelis facility.

The proposed Baghouse 7 will control particulate emissions from existing sources listed in Table 4 above.

B. Equipment List for the New or Modified Process(es)

The proposed Rotogrinder will be added to the existing Source ID SHRD. Existing sources to be controlled by Baghouse 7 as well as Baghouse 7 will be added to the insignificant activities list in Appendix B (discussed in Section VIII. C below). Therefore, the equipment list in Table 3.1 of the Permit was modified to indicate the addition of Rotogrinder to the Source ID SHRD.

3.1.1 Modified Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
SHRD	Shredders (Including Rotogrinder)	40 CFR 63 Subpart RRR Rule 391-3-1-.02(b)1 Rule 391-3-1-02(2)(e)(ii)	3.2.1, 3.2.7, 3.3.1, 3.3.2, 3.3.6, 3.3.8, 3.3.9, 3.3.10, 3.4.1, 3.4.2, 4.2.11	BAG6	Baghouse

* Generally applicable requirements contained in this permit may also apply to emission units listed above.

C. Equipment & Rule Applicability

Emission and Operating Caps –

Rotogrinder Installation Modification

The proposed Rotogrinder will operate under the Source ID SHRD. The existing SHRD is operated under restrictions to avoid Prevention of Significant Deterioration (PSD) [40 CFR 52.21]. The operating and emission caps that are applicable to Source ID SHRD are also applicable to the Rotogrinder. This permit modification does not modify, remove, or add any emission caps and/or operating caps to existing Source ID SHRD.

Baghouse 7 Installation Modification

This permit modification does not modify, remove, or add any emission caps and/or operating caps to the existing sources to be controlled by Baghouse 7.

Applicable Rules and Regulations –

Rotogrinder Installation Modification

As previously stated, the Rotogrinder and all other existing units permitted under Source ID SHRD are subject to any emission and operating standards specified by 40 CFR Part 63, Subpart RRR *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*. This permit modification does not modify or remove any existing rules and regulations applicability for Source ID SHRD, nor does this permit modification modify, remove, or add any emission and/or operating standards to existing Source ID SHRD.

Baghouse 7 Installation Modification

The existing sources to be controlled by Baghouse 7, listed in Table 4 above, are already subject to Georgia Air Rule 391-3-1-.02(2)(b) – Visible Emissions and Georgia Air Rule 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes. This permit modification does not modify or remove any existing rules and regulations applicability for existing sources to be controlled by Baghouse 7, nor does this permit modification modify, remove, or add any emission and/or operating standards to existing sources to be controlled by Baghouse 7.

D. Compliance Status

The facility's equipment is currently in compliance with all applicable Federal and State air regulations.

E. Operational Flexibility

There is no request for operational flexibility associated with these modifications.

F. Permit Conditions

No permit conditions were added or modified in Section 3.0 of the Permit as a result of these modifications.

V. Testing Requirements (with Associated Record Keeping and Reporting)

Due to the installation of the proposed Rotogrinder, Baghouse 6 will be required undergo performance testing to demonstrate compliance with 40 CFR Part 63, Subpart RRR. Therefore, Permit Condition 4.2.11 was added to require applicable performance testing/ compliance demonstration for the modified Source ID SHRD and associated control equipment, Baghouse 6, once the Rotogrinder is installed. These permit modifications does not modify or remove any testing requirements in Section 4.0 of the Permit.

VI. Monitoring Requirements (with Associated Record Keeping and Reporting)

These permit modifications does not modify, remove, or add any monitoring requirements in Section 5.0 of the Permit.

VII. Other Record Keeping and Reporting Requirements

These permit modifications does not modify, remove, or add any record keeping and/or reporting requirements in Section 6.0 of the Permit.

VIII. Specific Requirements

A. Operational Flexibility

There is no request for operational flexibility associated with these modifications.

B. Alternative Requirements

There is no request for alternative requirements associated with these modifications.

C. Insignificant Activities

Rotogrinder Installation Modification

This modification does not result in the addition of insignificant activities.

Baghouse 7 Installation Modification

Currently the Bale Breaker (BABR) and Baghouse 6 (BAG6) are listed in the insignificant activity Generic Emissions Group in Appendix B of the Permit. This is incorrect since Baghouse 6 controls sources subject to a 40 CFR Part 63 Standard. The correct baghouse is Baghouse 3. Therefore, the table was updated to correctly identify the right baghouse.

The existing sources controlled by the proposed Baghouse 7 are all subject to Georgia Rules 391-3-1-.02(2)(b) and (e) as discussed in Section IV C above. It has been determined that the existing sources to be controlled by Baghouse 7 as well as Baghouse 7 will be listed in the Generic Emissions Groups Insignificant Activity Category. Any existing equipment to be controlled by Baghouse 3 which are not currently listed under the Generic Emissions Groups Insignificant Activity Category will also be added as a result of the Baghouse 7 installation modification.

D. Temporary Sources

These modifications do not result in the addition of temporary sources.

E. Short-Term Activities

These modifications do not result in the addition of short-term activities.

F. Compliance Schedule/Progress Reports

No compliance schedule/progress reports are added as part of these modifications.

G. Emissions Trading

No emissions trading associated with these modifications.

H. Acid Rain Requirements

These modifications do not change the source's applicability.

I. Prevention of Accidental Releases

These modifications do not change the source's applicability.

J. Stratospheric Ozone Protection Requirements

These modifications do not change the source's applicability.

K. Pollution Prevention

There are no pollution prevention projects associated with these modifications.

L. Specific Conditions

No specific conditions included in these modifications.