November 9, 2017

**Mr. William Durham, Director**
West Virginia Department of
Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

RE: Novelis Corporation
Title V Air Permit Renewal Application Permit Number R30-04900038-2013

FILE: 784/66506

Dear **Mr. Durham:**

Attached, please find two copies of the Title V Air Permit renewal application for Novelis Corporation (Novelis) in Fairmont, West Virginia.

If you have questions or comments, please do not hesitate to contact CherylAnn Whitmore, P.E. at (315) 956-6546.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

**CherylAnn Whitmore, P.E.**
Project Manager

O'BRIEN & GERE ENGINEERS, INC.

**Matthew Traister, P.E.**
Vice President

Enclosures: Title V Air Permit Renewal Application

cc: Bryan Bleigh – Novelis Corporation
Joe Kondratowicz, CHMM– OBG

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RENEWAL APPLICATION

# West Virginia Department of Environmental Protection Title V Air Permit Renewal Application

**Novelis Corporation**
**Fairmont, West Virginia**

November 2017

OBG

NOVEMBER 2017 | 784 | 66506

# West Virginia Department of Environmental Protection
# Title V Air Permit Renewal Application

Prepared for:
Novelis Corporation
Fairmont, West Virginia

# Title V Air Permit Renewal Forms

**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**DIVISION OF AIR QUALITY**

601 57th Street SE

Charleston, WV 25304

Phone: (304) 926-0475

www.dep.wv.gov/daq

# INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

***Section 1: General Information***

1. **Name of Applicant (As registered with the WV Secretary of State's Office):**
Novelis Corporation

**2. Facility Name or Location:**
Novelis Corporation

**3. DAQ Plant ID No.:**
0 4 9 — 0 0 0 3 8

**4. Federal Employer ID No. (FEIN):**

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? MM/DD/YYYY

☒ Permit Renewal — What is the expiration date of the existing permit? 05/21/2018

☐ Update to Initial/Renewal Permit Application

**6. Type of Business Entity:**

☒ Corporation ☐ Governmental Agency ☐ LLC
☐ Partnership ☐ Limited Partnership

**7. Is the Applicant the:**

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

_____

_____

_____

**8. Number of onsite employees:**
180

**9. Governmental Code:**

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

**10. Business Confidentiality Claims**

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

| 11. Mailing Address | | |
|---|---|---|
| **Street or P.O. Box:** P.O. Box 912 | | |
| **City:** Fairmont | **State:** WV | **Zip: 26555-0912** |
| **Telephone Number:** (304) 367-5000 | **Fax Number:** (304) 367-5284 | |

| 12. Facility Location | | |
|---|---|---|
| **Street:** 1800 Speedway Ave. | **City:** Fairmont | **County:** Marion |
| **UTM Easting:** 577.00 km | **UTM Northing:** 4,372.00 km | **Zone:** ☒ 17 or ☐ 18 |
| **Directions:** From I-79 northbound take exit 137. Turn right off exit and stay on Speedway Ave. (bear right). The facility is approximately 1.2 miles on the left. | | |
| **Portable Source?** ☐ Yes ☒ No | | |
| **Is facility located within a nonattainment area?** ☐ Yes ☒ No | | **If yes, for what air pollutants?** |
| **Is facility located within 50 miles of another state?** ☒ Yes ☐ No | | **If yes, name the affected state(s).** PA |
| **Is facility located within 100 km of a Class I Area[1]?** ☐ Yes ☒ No<br>**If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No | | **If yes, name the area(s).** |

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

| **13. Contact Information** | | |
|---|---|---|
| **Responsible Official:** Anthony Ellis | | **Title:** Plant Manager |
| **Street or P.O. Box:** P.O. Box 912 | | |
| **City:** Fairmont | **State:** WV | **Zip: 26555-0912** |
| **Telephone Number:** (304) 367-5260 | **Fax Number:** (304) 367-5163 | |
| **E-mail address:** anthony.ellis@novelis.com | | |
| **Environmental Contact:** Bryan Bleigh | | **Title:** EHS Representative |
| **Street or P.O. Box:** P.O. Box 912 | | |
| **City:** Fairmont | **State:** WV | **Zip: 26555-0912** |
| **Telephone Number:** (304) 367-5244 | **Fax Number:** (304) 367-5284 | |
| **E-mail address:** bryan.bleigh@novelis.com | | |
| **Application Preparer:** CherylAnn Whitmore, P.E. | | **Title:** Project Manager |
| **Company:** O'Brien & Gere Engineers, Inc. | | |
| **Street or P.O. Box:** 333 West Washington Street | | |
| **City:** Syracuse | **State:** NY | **Zip: 13221-4873** |
| **Telephone Number:** (315) 956-6546 | **Fax Number:** (315) 463-7554 | |
| **E-mail address:** cherylann.whitmore@obg.com | | |

**14. Facility Description**

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

| Process | Products | NAICS | SIC |
|---|---|---|---|
| Aluminum Sheet, Plate & Foil Mfg. | Aluminum Sheet, Plate & Foil | 33531 | 3353 |
| | | | |
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**Provide a general description of operations.**

The Fairmont Plant consists of aluminum cold rolling mills, annealing furnaces, slitter lines, scrap baler, food grade lubricant coating line, and equipment to recover coolant lubricant. The aluminum coils are received from off-site sources by truck and are rolled and/or re-rolled to a desired gauge, annealed to specified temper, coated and/or slit to desired width per customer specifications. Then the final product is packaged for shipment. The aluminum coils are transferred manually to and from each operation by overhead cranes or industrial trucks. The facility has the potential to operate twenty-four hours per day, seven days per week, and fifty-two weeks a year.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

***Section 2: Applicable Requirements***

| **18. Applicable Requirements Summary** | |
|---|---|
| Instructions: Mark all applicable requirements. | |
| ☐ SIP | ☐ FIP |
| ☒ Minor source NSR (45CSR13) | ☐ PSD (45CSR14) |
| ☐ NESHAP (45CSR34) | ☐ Nonattainment NSR (45CSR19) |
| ☐ Section 111 NSPS | ☐ Section 112(d) MACT standards |
| ☐ Section 112(g) Case-by-case MACT | ☐ 112(r) RMP |
| ☐ Section 112(i) Early reduction of HAP | ☐ Consumer/commercial prod. reqts., section 183(e) |
| ☐ Section 129 Standards/Reqts. | ☐ Stratospheric ozone (Title VI) |
| ☐ Tank vessel reqt., section 183(f) | ☐ Emissions cap 45CSR§30-2.6.1 |
| ☐ NAAQS, increments or visibility (temp. sources) | ☐ 45CSR27 State enforceable only rule |
| ☐ 45CSR4 State enforceable only rule | ☐ Acid Rain (Title IV, 45CSR33) |
| ☐ Emissions Trading and Banking (45CSR28) | ☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64) |
| ☐ CAIR $NO_x$ Annual Trading Program (45CSR39) | ☐ CAIR $NO_x$ Ozone Season Trading Program (45CSR40) |
| ☐ CAIR $SO_2$ Trading Program (45CSR41) | |

| **19. Non Applicability Determinations** |
|---|
| **List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.**<br>NA |
| ☐ Permit Shield |

**19. Non Applicability Determinations *(Continued)*** - *Attach additional pages as necessary.*

**List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.**

☐ Permit Shield

**20. Facility-Wide Applicable Requirements**

**List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).**

Permit Expiration and Renewal - 45CSR§30-5.1.b, 45CSR§30-4.1.a.3, 45CSR§30-6.3.b, 45CSR§30-6.3.c
Permit Actions - 45CSR§30-5.1.f.3
Reopening for Cause -45CSR§30-6.6.a
Administrative Permit Amendments - 45CSR§30-6.4
Minor Permit Modifications - 45CSR§30-6.5.a
Significant Permit Modifications - 45CSR§30-6.5.b
Emissions Trading - 45CSR§30-5.1.h
Off-Permit Changes - 45CSR§30-5.9
Operational Flexibility - 45CSR§30-5.8, 45CSR§30-5.8.a, 45CSR§30-5.8.c, 45CSR§30-2.39
Reasonably Anticipated Operating Scenarios - 45CSR§30-5.1.i
Duty to Comply - 45CSR§30-5.1.f.1
Inspection and Entry - 45CSR§30-5.3.b
Schedule of Compliance - 45CSR§30-5.3.d
Need to Halt or Reduce Activity not a Defense - 45CSR§30-5.1.f.2
Emergency - 45CSR§30-5.7.a, 45CSR§30-5.7.b, 45CSR§30-5.7.c, 45CSR§30-5.7.d, 45CSR§30-5.7.e

☐ Permit Shield

**For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Permit Expiration and Renewal - 45CSR§30-5.1.b, 45CSR§30-4.1.a.3, 45CSR§30-6.3.b, 45CSR§30-6.3.c (Title V Permit Condition 2.3)
Permit Actions - 45CSR§30-5.1.f.3 (Title V Permit Condition 2.4)
Reopening for Cause -45CSR§30-6.6.a (Title V Permit Condition 2.5)
Administrative Permit Amendments - 45CSR§30-6.4 (Title V Permit Condition 2.6)
Minor Permit Modifications - 45CSR§30-6.5.a (Title V Permit Condition 2.7)
Significant Permit Modifications - 45CSR§30-6.5.b (Title V Permit Condition 2.8)
Emissions Trading - 45CSR§30-5.1.h (Title V Permit Condition 2.9)
Off-Permit Changes - 45CSR§30-5.9 (Title V Permit Condition 2.10)
Operational Flexibility - 45CSR§30-5.8, 45CSR§30-5.8.a, 45CSR§30-5.8.c, 45CSR§30-2.39 (Title V Permit Condition 2.11)
Reasonably Anicipated Operating Scenarios - 45CSR§30-5.1.i (Title V Permit Condition 2.12)
Duty to Comply - 45CSR§30-5.1.f.1 (Title V Permit Condition 2.13)
Inspection and Entry - 45CSR§30-5.3.b (Title V Permit Condition 2.14)
Schedule of Compliance - 45CSR§30-5.3.d (Title V Permit Condition 2.15)
Need to Halt or Reduce Activity not a Defense - 45CSR§30-5.1.f.2 (Title V Permit Condition 2.16)
Emergency - 45CSR§30-5.7.a, 45CSR§30-5.7.b, 45CSR§30-5.7.c, 45CSR§30-5.7.d, 45CSR§30-5.7.e (Title V Permit Condition 2.17)

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**20. Facility-Wide Applicable Requirements *(Continued)*** - *Attach additional pages as necessary.*

**List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.**

Federally-Enforceable Requirements - 45CSR§30-5.2.a
Duty to Provide Information - 45CSR§30-5.1.f.5
Duty to Supplement and Correct Information - 45CSR§30-4.2,
Permit Shield - 45CSR§30-5.6.a, 45CSR§30-5.6.c
Credible Evidence - 45CSR§30-5.3.e.3.B, 45CSR§38
Severability - 45CSR§30-5.1.e
Property Rights - 45CSR§30-5.1.f.4
Acid Deposition Control - 45CSR§30-5.1.d, 45CSR§30-5.1.a.2
Open Burning - 45CSR§6-3.1, 45CSR§6-3.1.c, 45CSR§6-3.1.d
Open Burning Exemptions - 45CSR§6-3.2
Asbestos - 40 CFR 61, 40CSR15
Odor - 45CSR§4-3.1, 45CSR13, R13-2268A, B.2.
Standby plan for reducing emissions - 45CSR§11-5.2
Emission Inventory - W.Va. Code §22-5-4(a)(14).
Ozone-depleting Substances - 40 CFR 82, Subpart F

☐ Permit Shield

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Federally-Enforceable Requirements - 45CSR§30-5.2.a (Title V Permit Condition 2.18)

Duty to Provide Information - 45CSR§30-5.1.f.5 (Title V Permit Condition 2.19)

Duty to Supplement and Correct Information - 45CSR§30-4.2 (Title V Permit Condition 2.20)

Permit Shield - 45CSR§30-5.6.a, 45CSR§30-5.6.c (Title V Permit Condition 2.21)

Credible Evidence - 45CSR§30-5.3.e.3.B, 45CSR§38 (Title V Permit Condition 2.22)

Severability - 45CSR§30-5.1.e (Title V Permit Condition 2.23)

Property Rights - 45CSR§30-5.1.f.4 (Title V Permit Condition 2.24)

Acid Deposition Control - 45CSR§30-5.1.d, 45CSR§30-5.1.a.2 (Title V Permit Condition 2.25)

Open Burning - 45CSR§6-3.1, 45CSR§6-3.1.c, 45CSR§6-3.1.d (Title V Permit Condition 3.1.1)

Open Burning Exemptions - 45CSR§6-3.2 (Title V Permit Condition 3.1.2)

Asbestos - 40 CFR 61. 45CSR34 (Title V Permit Condition 3.1.3)

Odor - 45CSR§4-3.1 (Title V Permit Condition 3.1.4)

Standby Plan for Reducing Emissions 45 CSR 11(Title V Permit Condition 3.1.5)

Emission Inventory - W.Va. Code §22-5-4(a)(14) (Title V Permit Condition 3.1.6)

Ozone-depleting substances – 40 CFR 82, Subpart F (Title V Permit Condition 3.1.7)

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**20. Facility-Wide Applicable Requirements *(Continued)*** - *Attach additional pages as necessary.*

**List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.**

Risk Management Plan - 40 CFR 68
Construction and Operation- 45CSR13, R13-2268, C.3.
Good Operating Practice for Particulate Control - 45CSR§7-5.2.; 45CSR13, R13-2268, Condition B.3.
Stack testing - WV Code § 22-5-4(a)(15), 45CSR13
Recordkeeping Requirements, Monitoring Information - 45CSR§30-5.1.c.2.A
Recordkeeping Requirements, Retention of Records - 45CSR§30-5.1.c.2.B
Recordkeeping Requirements, Odors - 45CSR§30-5.1.c
Reporting Requirements, Responsible Official - 45CSR§30-4.4, 45CSR§30-5.1.c.3.D.
Reporting Requirements, Confidential Treatment - 45CSR§30-5.1.c.3.E
Reporting Requirements, Certified Emission Statement - 45CSR§30-8
Reporting Requirements, Compliance Certification- 45CSR§30-5.3.e
Reporting Requirements, Semi-Annual Monitoring Reports- 45CSR§30-5.1.c.3.A
Reporting Requirements, Deviations - 45CSR§30-5.1.c.3.C, 45CSR§30-5.1.c.3.B, 45CSR§30-5.1.c.3.D,
Reporting Requirements, New Applicable Requirements - 45CSR§30-4.3.h.1.B
Permit Shield - 45CSR§30-5.6

☐ Permit Shield

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/ reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Risk Management Plan - 40 CFR 68 (Title V Permit Condition 3.1.8)
Construction and Operation - 45CSR§13, R13-2268, C.3. (Title V Permit Condition 3.1.9)
Good Operating Practice for Particulate Control - 45CSR§7-5.2.; 45CSR13, R13-2268, Condition B.3. (Title V Permit Condition 3.1.10)
Stack testing - WV Code § 22-5-4(a)(15), 45CSR§13 (Title V Permit Condition 3.3.1)
Recordkeeping Requirements, Monitoring Information - 45CSR§30-5.1.c.2.A (Title V Permit Condition 3.4.1)
Recordkeeping Requirements, Retention of Records - 45CSR§30-5.1.c.2.B (Title V Permit Condition 3.4.2)
Recordkeeping Requirements, Odors - 45CSR§30-5.1.c (Title V Permit Condition 3.4.3)
Reporting Requirements, Responsible Official - 45CSR§30-4.4, 45CSR§30-5.1.c.3.D.(Title V Permit Condition 3.5.1)
Reporting Requirements, Confidential Treatment - 45CSR§30-5.1.c.3.E (Title Permit Condition 3.5.2)
Reporting Requirements, Certified Emission Statement - 45CSR§30-8 (Title V Permit Condition 3.5.4)
Reporting Requirements, Compliance Certification- 45CSR§30-5.3.e (Title V Permit Condition 3.5.5)
Reporting Requirements, Semi-Annual Monitoring Reports- 45CSR§30-5.1.c.3.A (Title V Permit Condition 3.5.6)
Reporting Requirements, Deviations - 45CSR§30-5.1.c.3.C, 45CSR§30-5.1.c.3.B, 45CSR§30-5.1.c.3.D, (Title V Permit Condition 3.5.8)
Reporting Requirements, New Applicable Requirements - 45CSR§30-4.3.h.1.B (Title V Permit Condition 3.5.9)
Permit Shield - 45CSR§30-5.6 (Title V Permit Condition 3.7)

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

| **21. Active Permits/Consent Orders** | | |
|---|---|---|
| Permit or Consent Order Number | Date of Issuance MM/DD/YYYY | List any Permit Determinations that Affect the Permit *(if any)* |
| R30-04900038-2013 | 05/21/2013 | NA |
| CO-R13-2268B | 04/02/2008 | NA |
| CO-R13-98-45 | 12/17/1998 | NA |
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| **22. Inactive Permits/Obsolete Permit Conditions** | | |
|---|---|---|
| Permit Number | Date of Issuance | Permit Condition Number |
| R30-04900038-2008 | 08/18/2008 | NA |
| R30-04900038-2003 | 05/13/2003 | NA |
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***Section 3: Facility-Wide Emissions***

| **23. Facility-Wide Emissions Summary [Tons per Year]** | |
|---|---|
| Criteria Pollutants | Potential Emissions |
| Carbon Monoxide (CO) | 14.6 |
| Nitrogen Oxides ($NO_X$) | 19.3 |
| Lead (Pb) | 0.000083 |
| Particulate Matter ($PM_{2.5}$)[1] | 22.7 |
| Particulate Matter ($PM_{10}$)[1] | 22.7 |
| Total Particulate Matter (TSP) | 22.7 |
| Sulfur Dioxide ($SO_2$) | 0.11 |
| Volatile Organic Compounds (VOC) | 480 |
| Hazardous Air Pollutants[2] | Potential Emissions |
| Arsenic | 0.000033 |
| Benzene | 0.00035 |
| Beryllium | 0.000002 |
| Cadmium | 0.00018 |
| Chromium | 0.00023 |
| Cobalt | 0.000014 |
| Dichlorobenzene | 0.00020 |
| Formaldehyde | 0.012 |
| Hexane | 0.30 |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions |
| | |
| | |
| | |
| | |

*[1] $PM_{2.5}$ and $PM_{10}$ are components of TSP.*
*[2] For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.*

***Section 3: Facility-Wide Emissions***

| **23. Facility-Wide Emissions Summary [Tons per Year]** | |
|---|---|
| Criteria Pollutants | Potential Emissions |
| Carbon Monoxide (CO) | |
| Nitrogen Oxides ($NO_X$) | |
| Lead (Pb) | |
| Particulate Matter ($PM_{2.5}$)[1] | |
| Particulate Matter ($PM_{10}$)[1] | |
| Total Particulate Matter (TSP) | |
| Sulfur Dioxide ($SO_2$) | |
| Volatile Organic Compounds (VOC) | |
| Hazardous Air Pollutants[2] | Potential Emissions |
| Manganese | 0.000063 |
| Mercury | 0.000043 |
| Naphthalene | 0.00010 |
| Nickel | 0.00035 |
| Polucyclic Organic Matter | 0.000015 |
| Selenium | 0.000004 |
| Toluene | 0.00056 |
| Total HAP | 0.31 |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions |
| | |
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| | |

*[1]$PM_{2.5}$ and $PM_{10}$ are components of TSP.*
*[2]For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.*

***Section 4: Insignificant Activities***

| **24. Insignificant Activities (Check all that apply)** | | |
|---|---|---|
| ☒ | 1. | Air compressors and pneumatically operated equipment, including hand tools. |
| ☒ | 2. | Air contaminant detectors or recorders, combustion controllers or shutoffs. |
| ☒ | 3. | Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment. |
| ☒ | 4. | Bathroom/toilet vent emissions. |
| ☒ | 5. | Batteries and battery charging stations, except at battery manufacturing plants. |
| ☒ | 6. | Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description. |
| ☐ | 7. | Blacksmith forges. |
| ☐ | 8. | Boiler water treatment operations, not including cooling towers. |
| ☒ | 9. | Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source. |
| ☐ | 10. | $CO_2$ lasers, used only on metals and other materials which do not emit HAP in the process. |
| ☒ | 11. | Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources. |
| ☒ | 12. | Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel. |
| ☒ | 13. | Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment. |
| ☐ | 14. | Demineralized water tanks and demineralizer vents. |
| ☒ | 15. | Drop hammers or hydraulic presses for forging or metalworking. |
| ☐ | 16. | Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam. |
| ☐ | 17. | Emergency (backup) electrical generators at residential locations. |
| ☐ | 18. | Emergency road flares. |
| ☒ | 19. | Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, $NO_x$, $SO_2$, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.<br><br>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:<br><br>Please see table at end of section<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ |

| **24. Insignificant Activities (Check all that apply)** | | |
|---|---|---|
| ☐ | 20. | Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.<br><br>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:<br><br>_____<br>_____<br>_____<br>_____<br>_____ |
| ☐ | 21. | Environmental chambers not using hazardous air pollutant (HAP) gases. |
| ☐ | 22. | Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption. |
| ☐ | 23. | Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment. |
| ☒ | 24. | Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis. |
| ☐ | 25. | Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP. |
| ☒ | 26. | Fire suppression systems. |
| ☒ | 27. | Firefighting equipment and the equipment used to train firefighters. |
| ☐ | 28. | Flares used solely to indicate danger to the public. |
| ☐ | 29. | Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted. |
| ☐ | 30. | Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation. |
| ☒ | 31. | Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic. |
| ☐ | 32. | Humidity chambers. |
| ☒ | 33. | Hydraulic and hydrostatic testing equipment. |
| ☒ | 34. | Indoor or outdoor kerosene heaters. |
| ☒ | 35. | Internal combustion engines used for landscaping purposes. |
| ☐ | 36. | Laser trimmers using dust collection to prevent fugitive emissions. |
| ☐ | 37. | Laundry activities, except for dry-cleaning and steam boilers. |
| ☒ | 38. | Natural gas pressure regulator vents, excluding venting at oil and gas production facilities. |
| ☐ | 39. | Oxygen scavenging (de-aeration) of water. |
| ☐ | 40. | Ozone generators. |

| **24. Insignificant Activities (Check all that apply)** | | |
|---|---|---|
| ☒ | 41. | Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.) |
| ☒ | 42. | Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device. |
| ☒ | 43. | Process water filtration systems and demineralizers. |
| ☒ | 44. | Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification. |
| ☐ | 45. | Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified. |
| ☒ | 46. | Routing calibration and maintenance of laboratory equipment or other analytical instruments. |
| ☐ | 47. | Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers. |
| ☐ | 48. | Shock chambers. |
| ☐ | 49. | Solar simulators. |
| ☒ | 50. | Space heaters operating by direct heat transfer. |
| ☒ | 51. | Steam cleaning operations. |
| ☐ | 52. | Steam leaks. |
| ☐ | 53. | Steam sterilizers. |
| ☐ | 54. | Steam vents and safety relief valves. |
| ☐ | 55. | Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized. |
| ☐ | 56. | Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list. |
| ☐ | 57. | Such other sources or activities as the Director may determine. |
| ☐ | 58. | Tobacco smoking rooms and areas. |
| ☐ | 59. | Vents from continuous emissions monitors and other analyzers. |

***Section 5: Emission Units, Control Devices, and Emission Points***

**25. Equipment Table**

Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.

**26. Emission Units**

For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.

For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.

**27. Control Devices**

For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

*Section 6: Certification of Information*

**28. Certification of Truth, Accuracy and Completeness and Certification of Compliance**

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

**a. Certification of Truth, Accuracy and Completeness**

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

**b. Compliance Certification**

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

**Responsible official (type or print)**

| Name: Anthony Ellis | Title: Plant Manager |
|---|---|

**Responsible official's signature:**

Signature: _____ Signature Date: 11/6/17
(Must be signed and dated in blue ink)

**Note: Please check all applicable attachments included with this permit application:**

| | |
|---|---|
| ☒ | ATTACHMENT A: Area Map |
| ☒ | ATTACHMENT B: Plot Plan(s) |
| ☒ | ATTACHMENT C: Process Flow Diagram(s) |
| ☒ | ATTACHMENT D: Equipment Table |
| ☒ | ATTACHMENT E: Emission Unit Form(s) |
| ☐ | ATTACHMENT F: Schedule of Compliance Form(s) |
| ☒ | ATTACHMENT G: Air Pollution Control Device Form(s) |
| ☐ | ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s) |

***All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.***

**TANK EMISSIONS**

| Source ID | Emission ID | Equipment or Tank Number | Equipment Description | Tag Design Capacity Gallons | Year Installed | Type of Tank (1) | Height or Length (ft) | Diameter (t) | Maximum Fill Rate (gpm) | FRm Maximum Fill Rate (gph) | Annual Throughput gallons | Annual Throughput barrels Q | Number of Turnovers N | Kn | Lw (lb/yr) | Lmax (lb/hr) | Lw (tpy) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T16S | T16E | 16 | Steel Tank located within the #1 Mill Oil Cellar, It is currently not in use. | 500 | 1960 | H | 6 | 3.8 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0.00E+00 | 0.00E+00 |
| VOT#1 | VOT#1E | 20A | Steel Tank containing virgin/reclaimed oil. | 14,000 | 1991 | V | 21.7 | 10.5 | 33.3 | 0.56 | 464000 | 11048 | 33.1 | 1 | 22.7 | 2.59E-03 | 1.14E-02 |
| ROT#1 | ROT#1E | 20B | Steel Tank containing virgin/reclaimed oil. | 14,000 | 1991 | V | 21.7 | 10.5 | 58.3 | 0.97 | 105000 | 2500 | 7.5 | 1 | 5.1 | 5.87E-04 | 2.57E-03 |
| T20CS | T20CE | 20C | Steel Tank containing used oil. | 2,000 | 1991 | V | 10 | 5.8 | 0.0 | 0.0 | 0 | 0 | 0.0 | 0 | 0.0 | 0.00E+00 | 0.00E+00 |
| T20DS | T20DE | 20D | Steel Tank containing used oil. | 6,000 | 1991 | V | 15 | 8.3 | 0.0 | 0.0 | 0 | 0 | 0.0 | 0 | 0.0 | 0.00E+00 | 0.00E+00 |
| T21AS | T21AE | 21A | Steel Tank containing reclaimed/bottoms oil. | 2,000 | 1991 | V | 10 | 5.8 | 2.0 | 0.033 | 12000 | 286 | 6.0 | 1 | 0.6 | 6.71E-05 | 2.94E-04 |
| T21BS | T21BE | 21B | Steel Tank containing reclaimed/bottoms oil. | 2,000 | 1991 | V | 10 | 5.8 | 2.0 | 0.033 | 12000 | 286 | 6.0 | 1 | 0.6 | 6.71E-05 | 2.94E-04 |
| T21CS | T21CE | 21C | Steel Tank containing reclaimed/bottoms oil. | 2,000 | 1991 | V | 10 | 5.8 | 2.0 | 0.033 | 232000 | 5524 | 116.0 | 1 | 11.4 | 1.30E-03 | 5.68E-03 |
| T21DS | T21DE | 21D | Steel Tank containing reclaimed/bottoms oil. | 2,000 | 1991 | V | 10 | 5.8 | 2.0 | 0.033 | 232000 | 5524 | 116.0 | 1 | 11.4 | 1.30E-03 | 5.68E-03 |
| T25S | T25E | 25 | Oil Storage Tank[1] | 16,000 | 1960 | H | 4 | 26.1 | 1000.0 | 16.7 | 75000 | 1786 | 5 | 1 | 3.7 | 4.19E-04 | 1.84E-03 |
| T26S | T26E | 26 | Oil Storage Tank for the coolant filter system, located adjacent to the #1 Mill coolant pumps. | 2,000 | 1990 | V | 10 | 5.8 | 400.0 | 6.67 | 1460000 | 34762 | 730 | 1 | 71.5 | 8.16E-03 | 3.57E-02 |
| T27S | T27E | 27 | Rolling Oil Storage Tank located adjacent to Tank 25 in the #1 Mill Oil Cellar. | 16,000 | 1960 | H | 4 | 26.1 | 50.0 | 0.83 | 16000 | 381 | 1 | 1 | 0.8 | 8.94E-05 | 3.92E-04 |
| T28S | T28E | 28 | Morgoil tank located in the northwest corner of the #1 Mill Oil Cellar. | 2,500 | 1960 | H | 12 | 6 | 60.0 | 1.00 | 24000000 | 571429 | 9600 | 1 | 1175.1 | 1.34E-01 | 5.88E-01 |
| T29S | T29E | 29 | Steel hydraulic oil tank located along the north wall of the #1 Mill Oil Cellar. | 1,200 | 1960 | H | 8 | 5.1 | 50.0 | 0.83 | 5000000 | 119048 | 4167 | 1 | 244.8 | 2.79E-02 | 1.22E-01 |
| T30S | T30E | 30 | Rolling Oil Storage Tank for the coolant filter system, located by the #2 Mill filter pump. | 2,000 | 1985 | V | 10 | 5.8 | 400.0 | 6.67 | 2190000 | 52143 | 1095 | 1 | 107.2 | 1.22E-02 | 5.36E-02 |
| T31S | T31E | 31 | Rolling Oil Storage Tank in the #2 Mill Oil House[1]. | 23,000 | 4966 | H | 29.1 | 11.6 | 500.0 | 8.33 | 75000 | 1786 | 3 | 1 | 3.7 | 4.19E-04 | 1.84E-03 |
| T32S | T32E | 32 | Steel hydraulic oil tank located between #1Mill and #2 Mill. | 1,200 | 1966 | H | 8 | 5.1 | 50.0 | 0.83 | 5000000 | 119048 | 4167 | 1 | 244.8 | 2.79E-02 | 1.22E-01 |
| T33S | T33E | 33 | Lubricating tank located beneath the #2 Mill entry Valve stand. | 400 | 1966 | H | 5 | 3.7 | 50.0 | 0.83 | 2500000 | 59524 | 6250 | 1 | 122.4 | 1.40E-02 | 6.12E-02 |
| T34S | T34E | 34 | Steel "Dirty" Rolling oil tank located beneath the #2 Mill entry valve stand[1]. | 7,500 | 1966 | H | 15 | 9.2 | 500.0 | 8.33 | 75000 | 1786 | 10 | 1 | 3.7 | 4.19E-04 | 1.84E-03 |
| T35S | T35E | 35 | Hydraulic oil tank located adjacent to the Metal Baler. | 950 | 1960 | H | 6 | 9.2 | 50.0 | 0.83 | 1000000 | 23810 | 1053 | 1 | 49.0 | 5.59E-03 | 2.45E-02 |
| 81A | 81A | 81A | Steel oil Tank in Store Room | 1,000 | 2017 | V | 6 | 9.2 | 50.0 | 0.83 | 1000000 | 23810 | 1000 | 1 | 49.0 | 5.59E-03 | 2.45E-02 |
| 81B | 81B | 81B | Steel oil Tank in Store Room | 1,000 | 2017 | V | 6 | 9.2 | 50.0 | 0.83 | 1000000 | 23810 | 1000 | 1 | 49.0 | 5.59E-03 | 2.45E-02 |
| 81C | 81C | 81C | Steel oil Tank in Store Room | 1,000 | 2017 | V | 6 | 9.2 | 50.0 | 0.83 | 1000000 | 23810 | 1000 | 1 | 49.0 | 5.59E-03 | 2.45E-02 |

[1]The annual throughput for these tanks has been assumed to be the maximum annual amount of virgin oil purchased over the last 5 years. This amount was approximately 100,000 gallons for both mills. The amount of virgin oil added to these recycle systems has been scaled up for maximum operating hours to approximately 150,000 gallons and split in two for each mill.

# Figures

# FIGURE 1


ADAPTED FROM: FAIRMONT EAST AND RIVESVILLE USGS QUADRANGLES

NOVELIS CORPORATION
1800 SPEEDWAY AVENUE
FAIRMONT, WEST VIRGINIA 26554

MAP LOCATION

N

SITE LOCATION

0 1,000 2,000 4,000
Feet

1:24,000

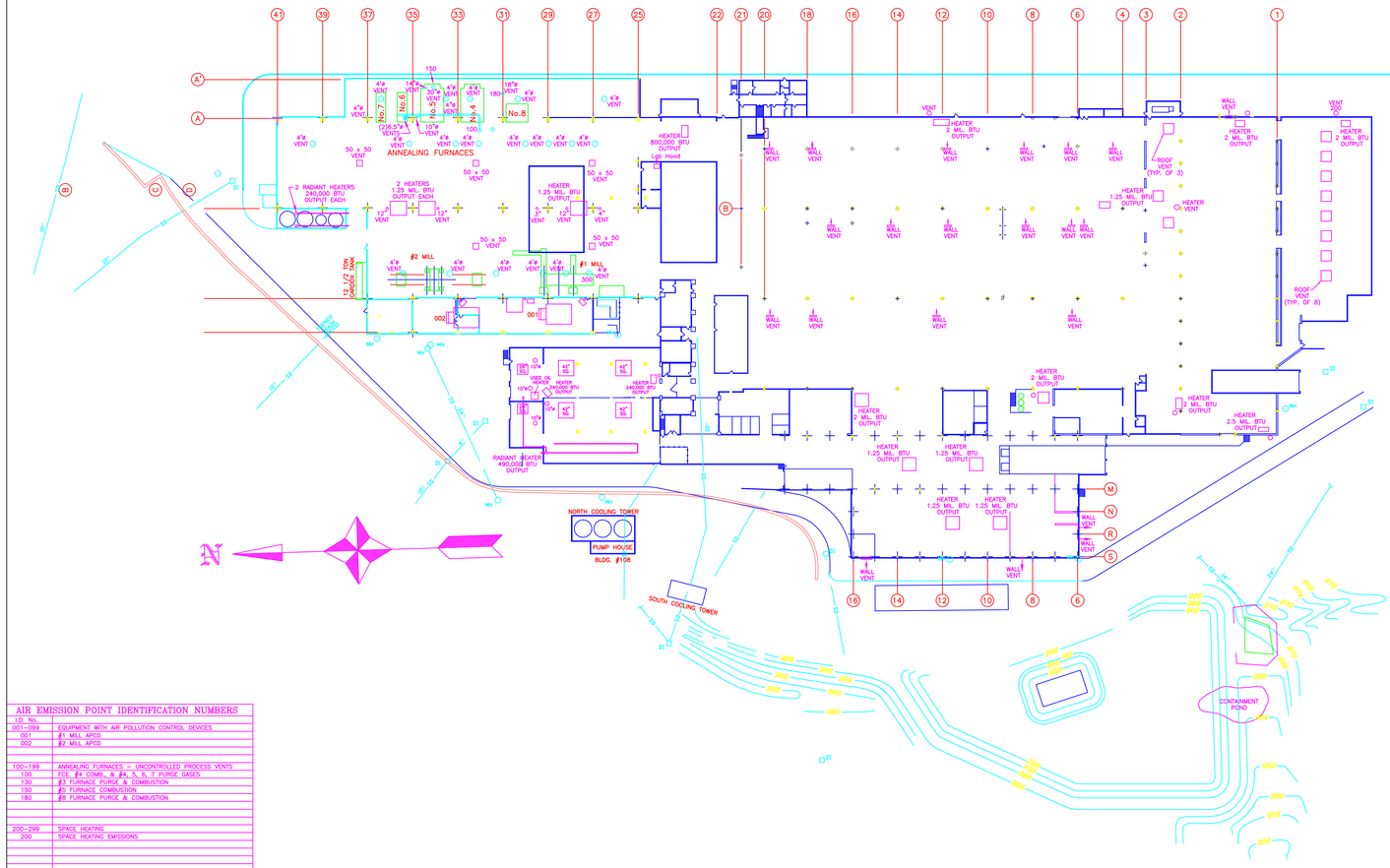
784.66506
SEPTEMBER 2017

O'BRIEN & GERE ENGINEERS, INC.

I:\Novelis-Corp.784\66506.Title-V-Renewal\Docs\DWG\MXD\SITE_LOCATION.mxd

9/18/2017 3:50:51 PM

# Plot Plan




## AIR EMISSION POINT IDENTIFICATION NUMBERS

| I.D. No. | |
|---|---|
| 001–099 | EQUIPMENT WITH AIR POLLUTION CONTROL DEVICES |
| 001 | #1 MILL APCD |
| 002 | #2 MILL APCD |
| | |
| 100–199 | ANNEALING FURNACES – UNCONTROLLED PROCESS VENTS |
| 100 | FOR #4 COMB. & #s. 5, 6, 7 PURGE GASES |
| 130 | #3 FURNACE PURGE & COMBUSTION |
| 150 | #5 FURNACE COMBUSTION |
| 180 | #6 FURNACE PURGE & COMBUSTION |
| | |
| 200–299 | SPACE HEATING |
| 200 | SPACE HEATING EMISSIONS |
| | |
| 300–399 | VENTILATORS |
| 300 | PLANT FUGITIVE EMISSIONS |

| NO. | DATE | REVISION |
|---|---|---|
| JOB NO. | | COST CTR. |

APPROVED BY

PROJECT MANAGER

TOLERANCE ALLOWANCE
UNLESS OTHERWISE SPECIFIED
DECIMAL FINISH DIMENSIONS: ±.003
FRACT. FINISH DIMENSIONS: ±1/64

DO NOT SCALE DWG.

FINISH SYMBOLS

| | | | |
|---|---|---|---|
| 16 | POLISH | 125 | ORDINARY |
| 32 | GRIND | 500 | ROUGH |
| 63 | FINE | T | CLEARANCE |

TENNANT
TECHNICAL SERVICES
BARRACKVILLE, WEST VIRGINIA
PHONE (304) 366-7967

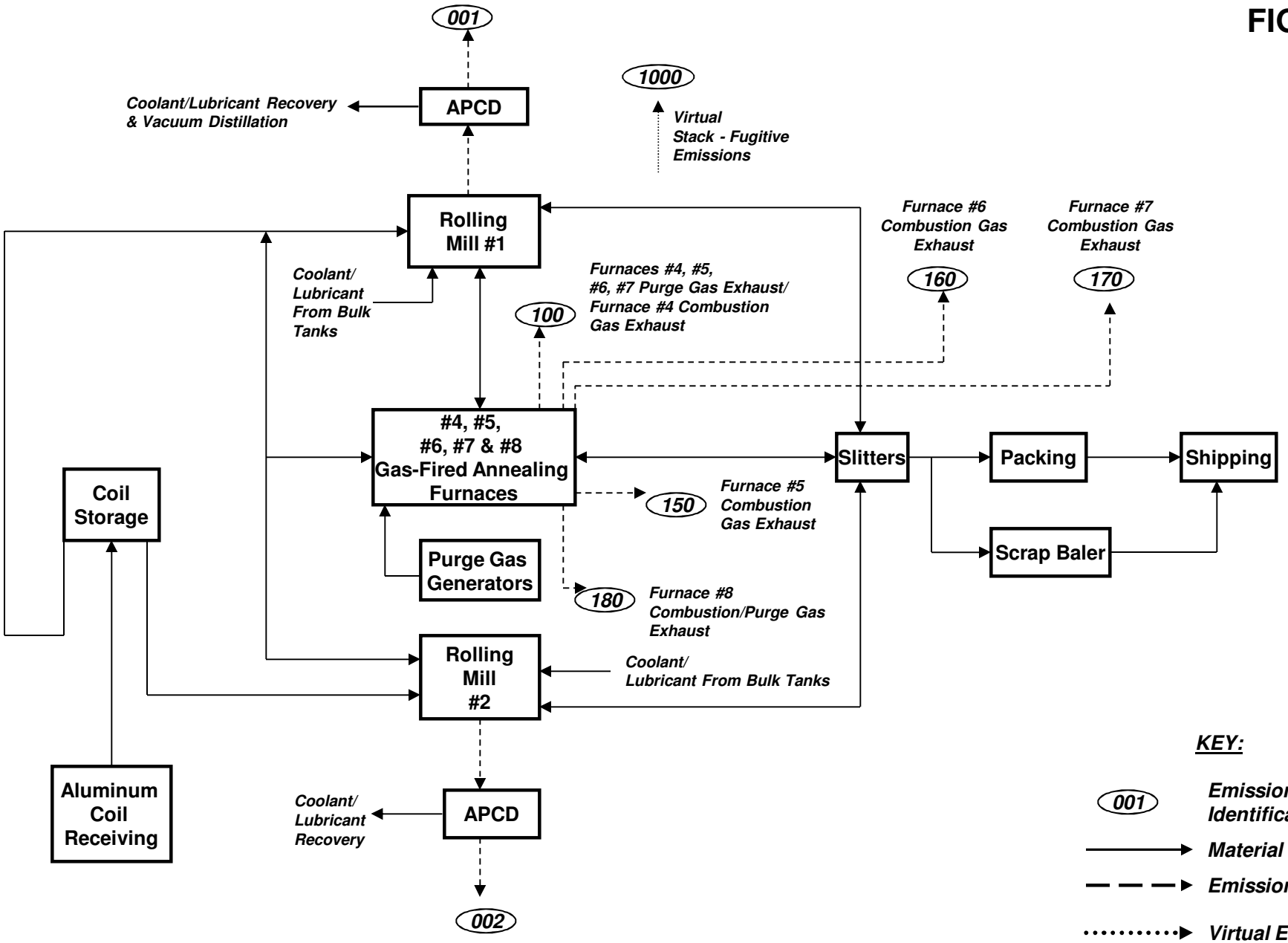
TITLE
NOVELIS – FAIRMONT PLANT
AIR EMISSION POINTS

DRAWN: MB DATE: 11/15/12
DESIGNED: N.T.S. DATE:
CHECKED: DATE:
SCALE:

DWG. NO.

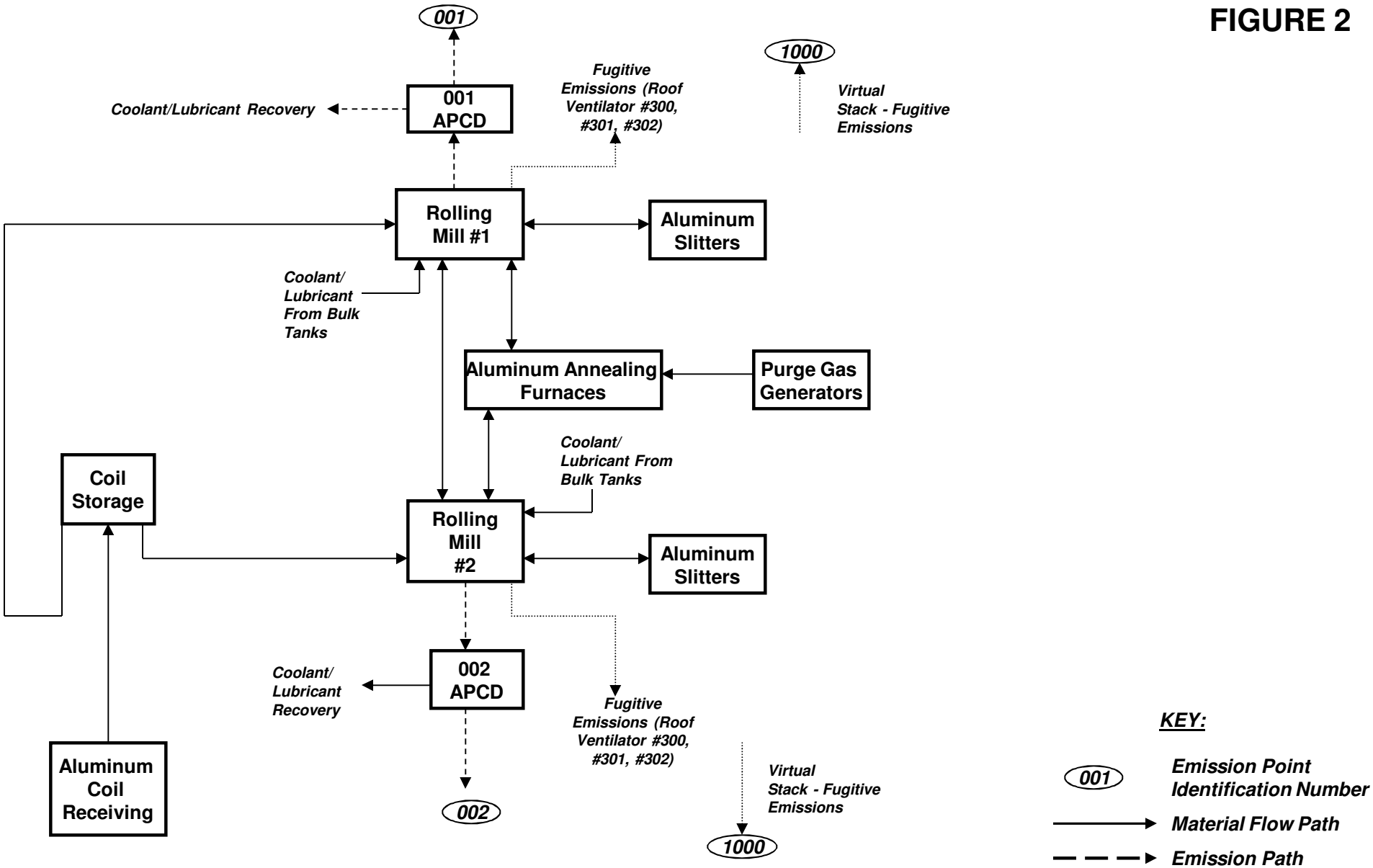
# Process Flow Diagram

**FIGURE 1**



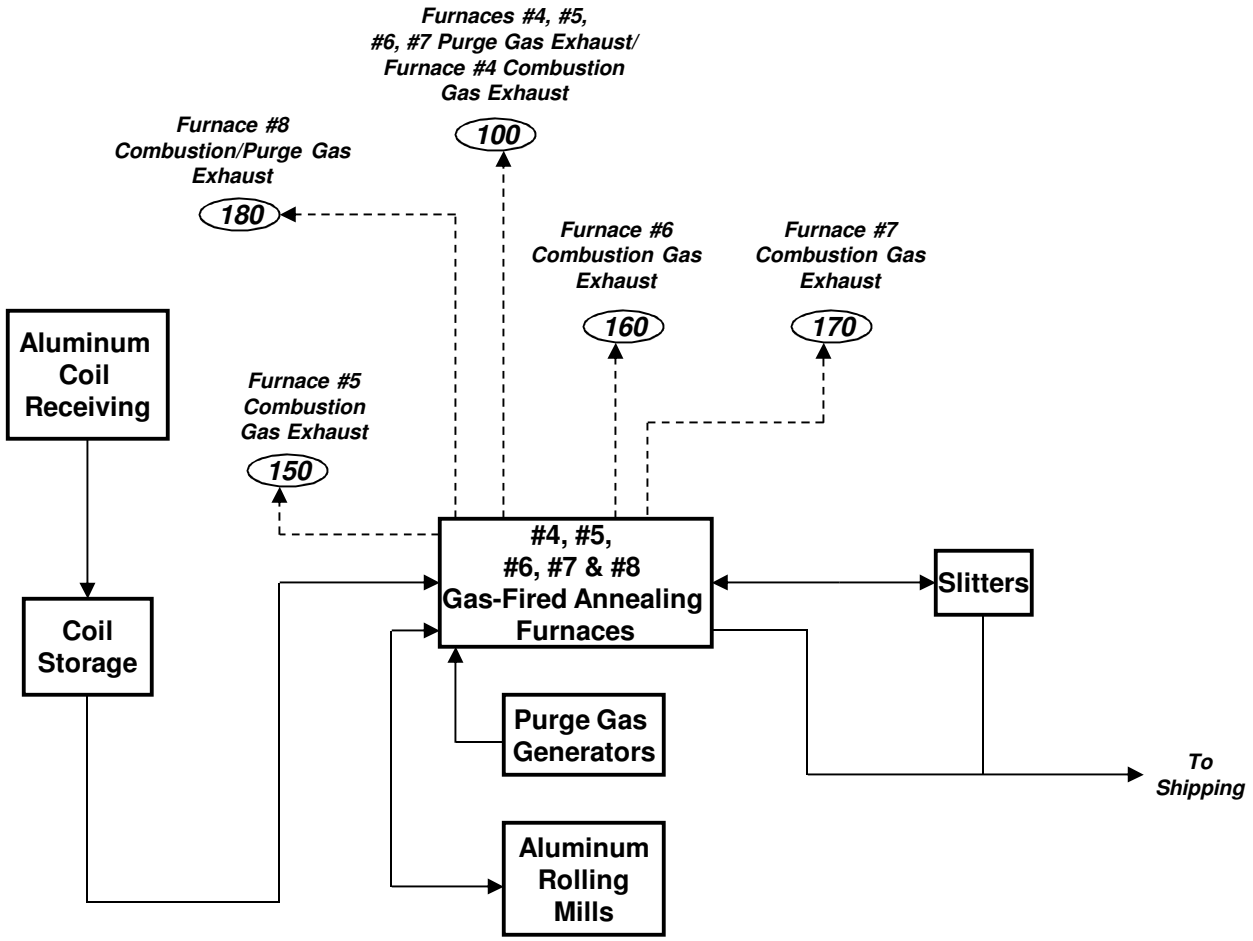

# Process Flow Diagram

# FIGURE 2




## Rolling Mills Emission Group

**FIGURE 3**




***KEY:***

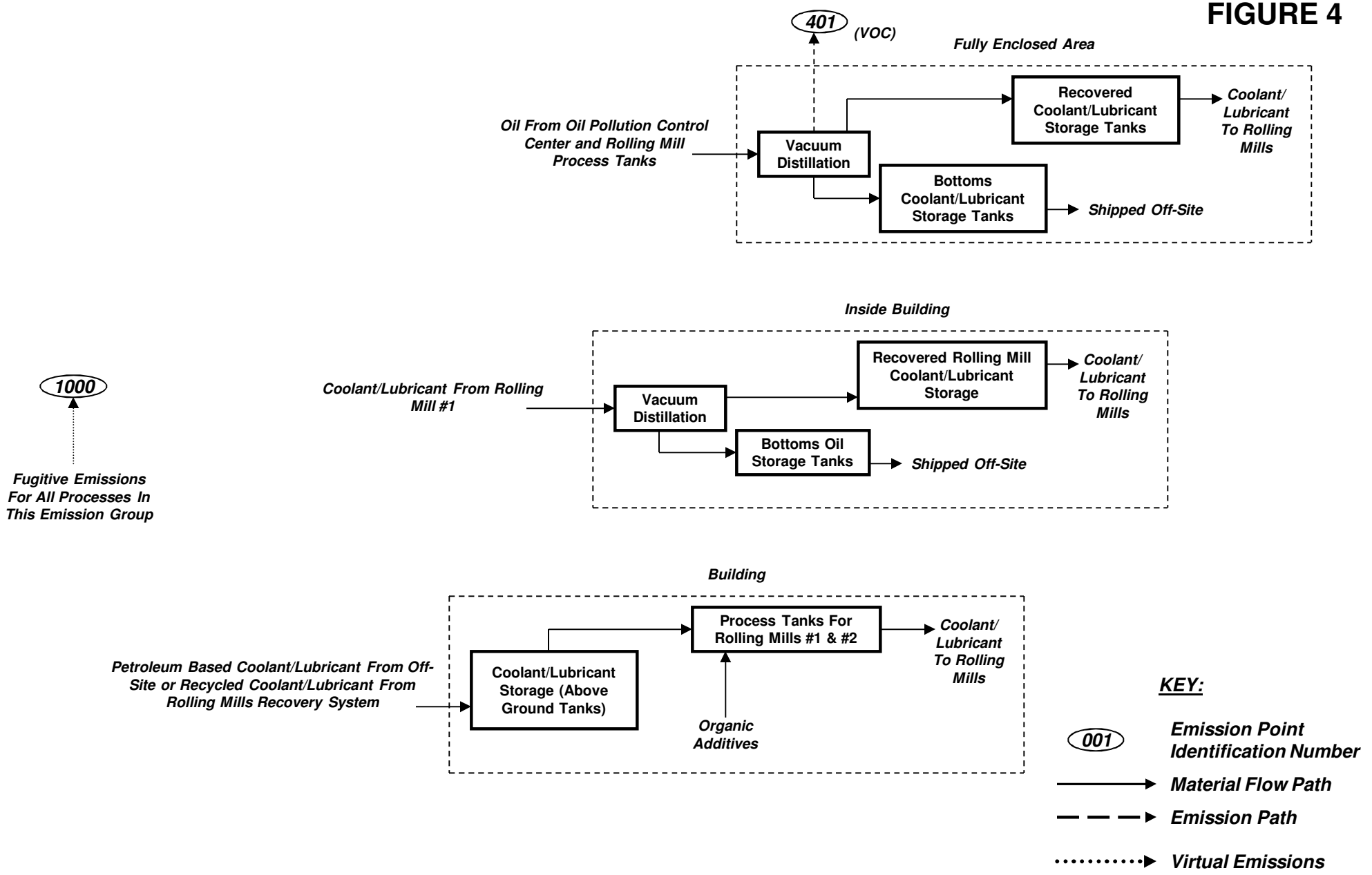
***001*** — ***Emission Point Identification Number***

***Material Flow Path***

***Emission Path***

# Annealing Emission Group

# FIGURE 4




# Lubricant Recycling Emission Group

# Title V Equipment Table

## ATTACHMENT D - Title V Equipment Table

**(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)**

| Emission Point ID[1] | Control Device[1] | Emission Unit ID[1] | Emission Unit Description | Design Capacity | Year Installed/ Modified |
|---|---|---|---|---|---|
| 001 | 001 APCD | 001-01 | Rolling Mill #1 Manufacturer: United | Confidential | 1960 |
| 002 | 002 APCD | 001-02 | Rolling Mill #2 Manufacturer: Pittsburgh | Confidential | 1967/1999 |
| Stack 001 | 001 APCD | 0001 | Oil Demister Mill#1 Manufacturer: Robert C. Murphy | 36,000 $ft^3$/hr<br>18.9216 x 109 $ft^3$/yr | 1979 |
| Stack 002 | 002 APCD | 0002 | Oil Demister Mill#2 Manufacturer: Robert C. Murphy | 48,000 $ft^3$/hr<br>25.2288 x 109 $ft^3$/yr | 1981 |
| 100 | NA | 002-02 | Annealing Furnace #4<br>Manufacturer: Swindell Dresler | 8.6 MMBtu/hr<br>75,336 MMBtu/yr | 1960 |
| 150 | NA | 002-03 | Annealing Furnace #5<br>Manufacturer: AMCO | 14.0 MMBtu/hr<br>122,640 MMBtu/yr | 1964 |
| 160 | NA | 002-08 | Annealing Furnace #6<br>Manufacturer: Sunbeam<br>Serial Number: F04/05-73 | 5.0 MMBtu/hr<br>43,800 MMBtu/yr | 1973/2001 |
| 170 | NA | 002-09 | Annealing Furnace #7<br>Manufacturer: Sunbeam | 5.0 MMBtu/hr<br>43,800 MMBtu/yr | 1973/2001 |
| 180 | NA | 002-04 | Annealing Furnace #8<br>Manufacturer: Rockwell | 6.0 MMBtu/hr<br>52,560 MMBtu/yr | 1994 |
| 100<br>180 | NA | 002-06 | Purge Gas Generator #2<br>Manufacturer: Kemp<br>Model: DCV-30<br>Serial Number: 2-1710 | 262.8 MMscf/yr | 1985 |
| 100<br>180 | NA | 002-07 | Purge Gas Generator #3<br>Manufacturer: Sunbeam<br>Model: LREX-15<br>Serial Number: F-06/07 | 131.4 MMscf/yr | 1973 |
| NA | Relatively High Concentrations of Hydro-carbons Filter | 003 | Recycling systems for used lubricant that involves vacuum distillation at Mill #1 as well as filtering of the oil at Mill #1 and #2. This system has a capture efficiency of approximately 85%. | 50 gallons per hour<br>438,000 gal/yr | Unknown |
| NA | NA | 003 | Vacuum distillation system - Oil from the Mill #1 Oil Cellar. From the vacuum distillation system to the recovered coolant/lubricant storage tanks back to the rolling mills. The heavier oils at the bottom of the coolant/lubricant storage tanks are shipped off-site. | 25 gallons per hour<br>220,000 gal/yr | 1979 |

**ATTACHMENT D - Title V Equipment Table**
**(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)**

| Emission Point ID[1] | Control Device[1] | Emission Unit ID[1] | Emission Unit Description | Design Capacity | Year Installed/ Modified |
|---|---|---|---|---|---|
| NA | NA | 003 | Vacuum distillation system - oil from Oil Pollution Center and Rolling Mill Process Tanks. From the vacuum distillation system to the recovered coolant/lubricant storage tanks to the rolling mills. The oils at the bottom of the Coolant/Lubricant Storage Tanks are shipped off- | 53 gallons per hour 464,000 gal/yr | 1991 |
| NA | NA | 005 | Lubricant recycling captures the lubricant used by the mills through a drainage system. The captured lubricant is filtered, vacuumed distilled, and transferred to the reclaimed oil tanks. The heavy oil portions are shipped off-site. | Unknown | Unknown |
| | | | | | |
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| | | | | | |

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

# Emission Unit Form

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** |
|---|---|---|
| 001-01 | Rolling Mill #1 | 001-APCD |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
Four high, single stand, cold mill used for gauge reduction of aluminum sheet. The mill consists of a feed mechanism, the roll system, and the recoil system. The rolling process utilizes a petroleum lubricant which is sprayed on the aluminum sheet during rolling. The milling operation generates particulate (PM-10) and VOC air emissions. VOC emissions data are provided at the emission group level. The mill air pollutants are captured by a hood system which ducts the air contaminants to a demister-type air pollution control device. The effluent air from the air pollution control device is emitted to the atmosphere through stack 001. Normal annual production and maximum annual production levels were derived from historical data and are totally dependent on the product mix and business conditions. Production volumes can and do vary significantly depending on business conditions and the seasonality of the particular line of products being produced at that time. Such factors as incoming reroll gauge and any outgoing product gauge, along with alloy, temper and sheet width have a major impact on both the total plant capacity as well as any single production machine capacity. Further, as this plant has several rolling mills, annealing furnaces and slitters, again depending on the above, individual production machines can and do run on various schedules from one shift per day for five days to three shifts per day for seven days. Further, as scrap loss is taken at each machine center, the production volume at any one machine center can be greater than the total plant production particularly in the mill and furnace area.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| United | | |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| MM/DD/1960 | MM/DD/1960 | MM/DD/YYYY |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 32.8 tons/hr

| **Maximum Hourly Throughput[1]:** | **Maximum Annual Throughput:** | **Maximum Operating Schedule:** |
|---|---|---|
| 32.8 tons/hr | 287,328 tons/yr | 24 hr/day, 7 day/wk, 52 wk/yr, 8,760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** ___Yes _X__ No | **If yes, is it?** ___ Indirect Fired ___Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:** | **Type and Btu/hr rating of burners:** |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| | | | |
| | | | |

***[1]Throughput information based on Novelis's original Title V application.***

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | 4.66 | 20.4 |
| Particulate Matter ($PM_{10}$) | 4.66 | 20.4 |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | 58.2 | 255 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

Particulate emission estimates are based on the original Title V permit application. VOC emissions estimates are based on mass balance calculations which are used for the purposes of annual emissions reporting.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions - 45CSR§§7-3.1. and 3.2.; 45CSR13, R13-2268, Conditions A.6. and B.3. *(001-01, 001-02, 0001, and 0002)* (Title V permit Condition 4.1.1)
Visible Emissions - 45CSR§7-4.1.; 45CSR13, R13-2268, Condition B.3. *(001-01, 001-02, 0001, and 0002)* (Title V permit Condition 4.1.2)
Dilution Prohibited - 45CSR§7-4.3 (Title V permit Condition 4.1.3)
Stack Testing - 45CSR-§7-4.12 (Title V permit Condition 4.1.4)
Visible Emissions - 45CSR§7-5.1.; 45CSR13, R13-2268, Condition B.3. (Title V permit Condition 4.1.5)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions - 45CSR§§7-3.1. and 3.2.; 45CSR13, R13-2268, Conditions A.6. and B.3. *(001-01, 001-02, 0001, and 0002)* (Title V permit Condition 4.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Visible Emissions - 45CSR§7-4.1.; 45CSR13, R13-2268, Condition B.3. *(001-01, 001-02, 0001, and 0002)* (Title V permit Condition 4.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Dilution Prohibited - 45CSR§7-4.3 (Title V permit Condition 4.1.3) No person shall circumvent the provisions of 45CSR7 by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.

Stack Testing - 45CSR-§7-4.12 (Title V permit Condition 4.1.4) Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

Visible Emissions - 45CSR§7-5.1.; 45CSR13, R13-2268, Condition B.3. (Title V permit Condition 4.1.5) No person shall cause, suffer, allow, or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system to minimize the emissions of fugitive particulate matter. To minimize means that a particulate capture or suppression system shall be installed to ensure the lowest fugitive particulate emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** __X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Unavoidable Malfunctions - 45CSR§7-9.1.; 45CSR13, R13-2268, Condition B.4. (Title V Permit Condition 4.1.6)
VOC Limit - 45CSR§13, R13-2268, Condition A.1.
VOC Limit, Hours of Operation - 45CSR§13, R13-2268, Condition A.4.
PM Limit - 45CSR§13, R13-2268, Condition A.5.
Use of Control Device - 45CSR§13, R13-2268, Condition A.7. (Title V Permit Condition 4.1.10)
Collection Efficiency - 45CSR§13, R13-2268, Condition A.8. (Title V Permit Condition 4.1.11)

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Unavoidable Malfunctions - 45CSR§7-9.1.; 45CSR13, R13-2268, Condition B.4. (Title V Permit Condition 4.1.6)
Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

VOC Limit - 45CSR§13, R13-2268, Condition A.1. Emissions of Volatile Organic Compounds (VOC) from the #1 Mill (emission unit 001-01) shall not exceed 58.2 pounds per hour and 255 tons per year (TPY). These emission limits include point and fugitive releases of VOC"s from the #1 rolling mill as determined similar to Section 4.4.1. and 4.4.2.

VOC Limit, Hours of Operation - 45CSR§13, R13-2268, Condition A.4.
For the purpose of maintaining compliance with the annual VOC limit in Section 4.1.7., the hours of contact time for #2 Rolling Mill (001-02) shall not exceed 6,468 hours per year, calculated as the sum during any consecutive twelve (12) month period.

PM Limit - 45CSR§13, R13-2268, Condition A.5. Emissions of Particulate Matter (PM) from the #1 Mill (emission unit 001-01) shall not exceed 4.66 pound per hour (lb/hr) and 20.4 tons per year (TPY).

Use of Control Device - 45CSR§13, R13-2268, Condition A.7. The permittee shall route the exhaust from the #1 mill (emission unit 001-01) to an oil demister (emission point ID Stack 001) at times when the #1 Mill is operating.

Collection Efficiency - 45CSR§13, R13-2268, Condition A.8. The permittee shall maintain and operate the oil demister so that the minimum collection efficiency for particulate matter (PM) is 85%.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions - 45CSR§30-5.1.c. and 45CSR13, R13-2268, Condition A.6. – (Title V Permit Condition 4.2.1)
Stack Testing - 45CSR§7-8.1.; 45CSR13, R13-2268, Condition B.3. (Title V Permit Condition 4.3.1)

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions - 45CSR§30-5.1.c. and 45CSR13, R13-2268, Condition A.6. – (Title V Permit Condition 4.2.1)
For the purpose of determining compliance with the opacity limits of 4.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 4.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Stack Testing - 45CSR§7-8.1.; 45CSR13, R13-2268, Condition B.3. (Title V Permit Condition 4.3.1)
At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Stack Testing - 45CSR§7-8.2. (Title V Permit Condition 4.3.2)
Stack Testing - 45CSR13, R13-2268, Condition B.6. (Title V Permit Condition 4.3.3)
VOC Limit - 45CSR13, R13-2268, Condition A.2.
VOC Limit - 45CSR13, R13-2268, Condition A.2.

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Stack Testing - 45CSR§7-8.2. (Title V Permit Condition 4.3.2) The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.

Stack Testing - 45CSR13, R13-2268, Condition B.6. (Title V Permit Condition 4.3.3) Tests that are required by the Secretary to determine compliance with the destruction efficiency as set forth in Section 4.1.11. of this permit shall be conducted in accordance with the methods as set forth below. The Secretary may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at the maximum permitted operating conditions unless otherwise specified by the Secretary. Should the maximum permitted operating conditions allowed in this permit not be attainable during the initial compliance testing, then the facility shall be limited in operation to the maximum operating conditions attained during testing. The permittee shall again be required to perform such compliance testing when maximum permitted operating conditions are attainable. The maximum operating conditions attained during compliance testing shall be the maximum operating conditions allowed by this permit.

a. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 CFR 60, Appendix A.

VOC Limit - 45CSR13, R13-2268, Condition A.2. (Title V Permit Condition 4.4.1) For the purpose of demonstrating compliance with the annual VOC limit., the permittee shall at least once every twelve (12) months determine how much coolant fluid is emitted to the atmosphere as VOCs from the #1 Mill using a mass balance estimation method. Mass balance emission estimation is taking the amount of coolant added to the system and subtracting the amount of coolant that left the system as product or as a waste product. All records, calculations and invoices used in this process shall be kept on site for five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.

VOC Limit - 45CSR13, R13-2268, Condition A.3. For the purpose of demonstrating compliance with the annual VOC limit, the permittee shall monitor and record on a monthly basis the amount of virgin coolant that was removed from the virgin coolant storage tanks. All records shall be kept on site for five (5) years and shall be made available to the Secretary or his/her duly authorized representative upon request.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

VOC Limit, Hours of Operation - 45CSR13, R13-2268, Condition A.4.
Storage Capacity - 45CSR13, R13-2268, Condition A.9. (Title V Permit Condition 4.4.4)
Responsible Official - 45CSR13, R13-2268, Condition B.4. (Title V Permit Condition 4.4.5)
Records Retention - 45CSR13, R13-2268, Condition A.6. (Title V Permit Condition 4.4.6)

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

VOC Limit, Hours of Operation - 45CSR13, R13-2268, Condition A.4.
To demonstrate compliance with Section 4.1.8., the permittee shall keep daily records of contact time for the #1 mill and determine the 12-month rolling total of contact time on a monthly basis.

Storage Capacity - 45CSR13, R13-2268, Condition A.9. (Title V Permit Condition 4.4.4) The permittee shall maintain on site at all times records showing the dimensions of Virgin Oil Tank #1 (ID. No. VOT #1) and Reclaimed Oil Tank #1 (ID. No. ROT #1) and an analysis showing the storage capacity of each tank. These records shall be made available to the Director or his/her duly authorized representative upon request.

Responsible Official - 45CSR13, R13-2268, Condition B.4. (Title V Permit Condition 4.4.5) All records required by this permit must be signed by a „Responsible Official" within fifteen (15) working days after the end of the calendar month utilizing the CERTIFICATION OF DATA ACCURACY statement (See Attachment A) which is to be attached to, or copied to the reverse side of each reporting form or will reference the data files stored on electronic media.

Records Retention - 45CSR13, R13-2268, Condition A.6. (Title V Permit Condition 4.4.6) All records of visible emissions readings shall be kept on site for five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** 002-APCD |
|---|---|---|
| 001-02 | Rolling Mill #2 | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
Four high, single stand, cold mill used for gauge reduction of aluminum sheet. The mill consists of a feed mechanism, the roll system, and the recoil system. The rolling process utilizes a petroleum lubricant which is sprayed on the aluminum sheet during rolling. The milling operation generates particulate (PM-10) and VOC air emissions. VOC emissions data is provided at the emission group level. The mill air pollutants are captured by a hood system which ducts the air contaminants to a demister-type air pollution control device. The effluent air from the air pollution control device is emitted to the atmosphere through stack 001. Normal annual production and maximum annual production was derived from historical data and was totally dependent on the product mix and business conditions. Production volumes can and do vary significantly depending on business conditions and the seasonality of the particular line of products being produced at that time. Such factors as incoming reroll gauge and any outgoing product gauge, along with alloy, temper and sheet width have a very major impact on both the total plant capacity as well as any single production machine capacity. Further, as this plant has several rolling mills, annealing furnaces and slitters, again depending on the above, individual production machines can and do run on various schedules from one shift per day for five days to three shifts per day for seven days. Further, as scrap loss is taken at each machine center, the production volume at any one machine center can be greater than the total plant production particularly in the mill and furnace area.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| Pittsburgh | | |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| MM/DD/1967 | MM/DD/1967 | MM/DD/1999 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 27.4 tons/hr

| **Maximum Hourly Throughput[1]:** | **Maximum Annual Throughput:** | **Maximum Operating Schedule:** |
|---|---|---|
| 27.4 tons/hr | 177,223 tons/ yr | 24 hr/day, 7 days/ wk, 52 wk/ yr, 6,468 hr/hr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** ___Yes __X__ No | **If yes, is it?** ___ Indirect Fired ___Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:** | **Type and Btu/hr rating of burners:** |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| | | | |
| | | | |

***[1]Throughput information based on Novelis's 1998 Title V permit modification application.***

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | 0.93 | 1.00 |
| Particulate Matter ($PM_{10}$) | 0.93 | 1.00 |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | 107 | 224 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

Particulate emission rates are based on 2001 stack test results (0.31 lb/hr multiplied by a safety factor of 3) using USEPA Reference Method 17 and a cap established during the rolling mill modification (1 ton/yr). VOC emissions estimates are based on mass balance calculations which are used for the purposes of emissions reporting.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions - 45CSR§§7-3.1. and 3.2.; 45CSR13, R13-2268, Conditions A.6. and B.3. *(001-01, 001-02, 0001, and 0002)* (Title V permit Condition 4.1.1)
Visible Emissions - 45CSR§7-4.1.; 45CSR13, R13-2268, Condition B.3. *(001-01, 001-02, 0001, and 0002)* (Title V permit Condition 4.1.2)
Dilution Prohibited - 45CSR§7-4.3 (Title V permit Condition 4.1.3)
Stack Testing - 45CSR-§7-4.12 (Title V permit Condition 4.1.4)
Visible Emissions - 45CSR§7-5.1.; 45CSR13, R13-2268, Condition B.3. (Title V permit Condition 4.1.5)

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions - 45CSR§§7-3.1. and 3.2.; 45CSR13, R13-2268, Conditions A.6. and B.3. *(001-01, 001-02, 0001, and 0002)* (Title V permit Condition 4.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Visible Emissions - 45CSR§7-4.1.; 45CSR13, R13-2268, Condition B.3. *(001-01, 001-02, 0001, and 0002)* (Title V permit Condition 4.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Dilution Prohibited - 45CSR§7-4.3 (Title V permit Condition 4.1.3) No person shall circumvent the provisions of 45CSR7 by adding additional gas to any exhaust or group of exhausts for the purpose of reducing the stack gas concentration.

Stack Testing - 45CSR-§7-4.12 (Title V permit Condition 4.1.4) Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

Visible Emissions - 45CSR§7-5.1.; 45CSR13, R13-2268, Condition B.3. (Title V permit Condition 4.1.5) No person shall cause, suffer, allow, or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system to minimize the emissions of fugitive particulate matter. To minimize means that a particulate capture or suppression system shall be installed to ensure the lowest fugitive particulate emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Unavoidable Malfunctions - 45CSR§7-9.1.; 45CSR13, R13-2268, Condition B.4. (Title V Permit Condition 4.1.6)
VOC Limit - 45CSR§13, R13-2268, Condition A.1. (Title V Permit Condition 4.1.7)
VOC Limit, Hours of Operation - 45CSR§13, R13-2268, Condition A.4. (Title V Permit Condition 4.1.8)
PM Limit - 45CSR§13, R13-2268, Condition A.5. (Title V Permit Condition 4.1.9)
Use of Control Device - 45CSR§13, R13-2268, Condition A.7. (Title V Permit Condition 4.1.10)
Collection Efficiency - 45CSR§13, R13-2268, Condition A.8. (Title V Permit Condition 4.1.11)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Unavoidable Malfunctions - 45CSR§7-9.1.; 45CSR13, R13-2268, Condition B.4. (Title V Permit Condition 4.1.6)
Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

VOC Limit - 45CSR§13, R13-2268, Condition A.1. (Title V Permit Condition 4.1.7) Emissions of Volatile Organic Compounds (VOC) from the #2 Mill (emission unit 001-02) shall not exceed 107 pounds per hour and 223.9 tons per year (TPY). These emission limits include point and fugitive releases of VOC"s from the #2 rolling mill as determined by Section 4.4.1. and 4.4.2.

VOC Limit, Hours of Operation - 45CSR§13, R13-2268, Condition A.4. (Title V Permit Condition 4.1.8)
For the purpose of maintaining compliance with the annual VOC limit in Section 4.1.7., the hours of contact time for #2 Rolling Mill (001-02) shall not exceed 6,468 hours per year, calculated as the sum during any consecutive twelve (12) month period.

PM Limit - 45CSR§13, R13-2268, Condition A.5. (Title V Permit Condition 4.1.9) Emissions of Particulate Matter (PM) from the #2 Mill (emission unit 001-02) shall not exceed 0.93 pound per hour (lb/hr) and 1.0 tons per year (TPY).

Use of Control Device - 45CSR§13, R13-2268, Condition A.7. (Title V Permit Condition 4.1.10) The permittee shall route the exhaust from the #2 mill (emission unit 001-02) to an oil demister (emission point ID Stack 002) at times when the #2 Mill is operating.

Collection Efficiency - 45CSR§13, R13-2268, Condition A.8. (Title V Permit Condition 4.1.11) The permittee shall maintain and operate the oil demister so that the minimum collection efficiency for particulate matter (PM) is 85%.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions - 45CSR§30-5.1.c. and 45CSR13, R13-2268, Condition A.6. – (Title V Permit Condition 4.2.1)
Stack Testing - 45CSR§7-8.1.; 45CSR13, R13-2268, Condition B.3. (Title V Permit Condition 4.3.1)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions - 45CSR§30-5.1.c. and 45CSR13, R13-2268, Condition A.6. – (Title V Permit Condition 4.2.1)
For the purpose of determining compliance with the opacity limits of 4.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 4.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Stack Testing - 45CSR§7-8.1.; 45CSR13, R13-2268, Condition B.3. (Title V Permit Condition 4.3.1)
At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Stack Testing - 45CSR§7-8.2. (Title V Permit Condition 4.3.2)
Stack Testing - 45CSR13, R13-2268, Condition B.6. (Title V Permit Condition 4.3.3)
VOC Limit - 45CSR13, R13-2268, Condition A.2. (Title V Permit Condition 4.4.1)
VOC Limit - 45CSR13, R13-2268, Condition A.2. (Title V Permit Condition 4.4.2)

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Stack Testing - 45CSR§7-8.2. (Title V Permit Condition 4.3.2) The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.

Stack Testing - 45CSR13, R13-2268, Condition B.6. (Title V Permit Condition 4.3.3) Tests that are required by the Secretary to determine compliance with the destruction efficiency as set forth in Section 4.1.11. of this permit shall be conducted in accordance with the methods as set forth below. The Secretary may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at the maximum permitted operating conditions unless otherwise specified by the Secretary. Should the maximum permitted operating conditions allowed in this permit not be attainable during the initial compliance testing, then the facility shall be limited in operation to the maximum operating conditions attained during testing. The permittee shall again be required to perform such compliance testing when maximum permitted operating conditions are attainable. The maximum operating conditions attained during compliance testing shall be the maximum operating conditions allowed by this permit.

a. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 CFR 60, Appendix A.

VOC Limit - 45CSR13, R13-2268, Condition A.2. (Title V Permit Condition 4.4.1) For the purpose of demonstrating compliance with the annual VOC limit in Section 4.1.7., the permittee shall at least once every twelve (12) months determine how much coolant fluid is emitted to the atmosphere as VOCs from the #2 Mill using a mass balance estimation method. Mass balance emission estimation is taking the amount of coolant added to the system and subtracting the amount of coolant that left the system as product or as a waste product. All records, calculations and invoices used in this process shall be kept on site for five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.

VOC Limit - 45CSR13, R13-2268, Condition A.3. (Title V Permit Condition 4.4.2) For the purpose of demonstrating compliance with the annual VOC limit in Section 4.1.7., the permittee shall monitor and record on a monthly basis the amount of virgin coolant that was removed from the virgin coolant storage tanks. All records shall be kept on site for five (5) years and shall be made available to the Secretary or his/her duly authorized representative upon request.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V***

***permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

VOC Limit, Hours of Operation - 45CSR13, R13-2268, Condition A.4. (Title V Permit Condition 4.4.3)
Storage Capacity - 45CSR13, R13-2268, Condition A.9. (Title V Permit Condition 4.4.4)
Responsible Official - 45CSR13, R13-2268, Condition B.4. (Title V Permit Condition 4.4.5)
Records Retention - 45CSR13, R13-2268, Condition A.6. (Title V Permit Condition 4.4.6)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

VOC Limit, Hours of Operation - 45CSR13, R13-2268, Condition A.4. (Title V Permit Condition 4.4.3)
To demonstrate compliance with Section 4.1.8., the permittee shall keep daily records of contact time for the #2 mill and determine the 12-month rolling total of contact time on a monthly basis.

Storage Capacity - 45CSR13, R13-2268, Condition A.9. (Title V Permit Condition 4.4.4) The permittee shall maintain on site at all times records showing the dimensions of Virgin Oil Tank #1 (ID. No. VOT #1) and Reclaimed Oil Tank #1 (ID. No. ROT #1) and an analysis showing the storage capacity of each tank. These records shall be made available to the Director or his/her duly authorized representative upon request.

Responsible Official - 45CSR13, R13-2268, Condition B.4. (Title V Permit Condition 4.4.5) All records required by this permit must be signed by a „Responsible Official" within fifteen (15) working days after the end of the calendar month utilizing the CERTIFICATION OF DATA ACCURACY statement (See Attachment A) which is to be attached to, or copied to the reverse side of each reporting form or will reference the data files stored on electronic media.

Records Retention - 45CSR13, R13-2268, Condition A.6. (Title V Permit Condition 4.4.6) All records of visible emissions readings shall be kept on site for five (5) years and shall be made available to the Director or his/her duly authorized representative upon request.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** NA |
|---|---|---|
| 002-02 | Annealing Furnace #4 | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
This furnace is used to thermally change the mechanical properties of the aluminum.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| Swindler Dresler | | |

| **Construction date:** | **Installation date:** | **Modification date(s):** |
|---|---|---|
| 12/01/1960 | 12/01/1960 | 12/01/1960 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
8.6 MMBtu/hr

| **Maximum Hourly Throughput:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 8.6 MMBtu/hr | 75,336 MMBtu/yr | **24 hr/day, 7 days/wk, 52 wk/yr**<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** _X_Yes ___ No | **If yes, is it?**<br>___ Indirect Fired _X_Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:**<br>8.6 MMBtu/hr | **Type and Btu/hr rating of burners:**<br>NA |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**
Natural Gas - 0.0084 MMscf/hr or 73.9 MMscf/yr

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| Natural Gas | | | 1,020 |
| | | | |
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

***Emissions Data***

| Criteria Pollutants | Potential Emissions | |
|---|---|---|
| | PPH | TPY |
| Carbon Monoxide (CO) | 0.708 | 3.10 |
| Nitrogen Oxides ($NO_X$) | 0.843 | 3.69 |
| Lead (Pb) | 4.22E-6 | 1.85E-5 |
| Particulate Matter ($PM_{2.5}$) | 6.41E-2 | 0.281 |
| Particulate Matter ($PM_{10}$) | 6.41E-2 | 0.281 |
| Total Particulate Matter (TSP) | 6.41E-2 | 0.281 |
| Sulfur Dioxide ($SO_2$) | 5.06E-3 | 2.22E-2 |
| Volatile Organic Compounds (VOC) | 4.64E-2 | 0.203 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Arsenic | 1.69E-6 | 7.39E-6 |
| Benzene | 1.01E-8 | 4.43E-8 |
| Beryllium | 1.01E-7 | 4.43E-7 |
| Cadmium | 9.27E-6 | 4.06E-5 |
| Chromium | 1.18E-5 | 5.17E-5 |
| Cobalt | 7.08E-7 | 3.10E-6 |
| Dichlorobenzene | 1.01E-5 | 4.43E-5 |
| Formaldehyde | 6.32E-4 | 2.77E-3 |
| Hexane | 1.52E-2 | 6.65E-2 |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

***Emissions Data***

| Criteria Pollutants | Potential Emissions | |
|---|---|---|
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Manganese | 3.20E-6 | 1.40E-5 |
| Mercury | 2.19E-6 | 9.60E-6 |
| Naphthalene | 5.14E-6 | 2.25E-5 |
| Nickel | 1.77E-5 | 7.76E-5 |
| Polycyclic Organic Matter | 7.44E-7 | 3.26E-6 |
| Selenium | 2.02E-7 | 8.86E-7 |
| Toluene | 2.87E-5 | 1.26E-4 |
| Total HAP | 1.59E-2 | 6.97E-2 |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1)
Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2)
Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3) No person shall cause, suffer, allow or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1)
Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1) For the purpose of determining compliance with the opacity limits of 5.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 5.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1) In order to demonstrate compliance with the particulate matter emission limits, the combustion sources shall burn only natural gas and shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. In addition, the permittee shall record the total quantity of fuel burned in such units monthly. Records shall be maintained on site and shall be made available upon request to the Director or his/her duly authorized representative.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** NA |
|---|---|---|
| 002-03 | Annealing Furnace #5 | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
This furnace is used to thermally change the mechanical properties of the aluminum.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| AMCO | | |

| **Construction date:** | **Installation date:** | **Modification date(s):** |
|---|---|---|
| 12/01/1964 | 12/01/1964 | 12/01/1964 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
14.0 MMBtu/hr

| **Maximum Hourly Throughput:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 14.0 MMBtu/hr | 122,640 MMBtu/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** _X_Yes ___ No | **If yes, is it?**<br>___ Indirect Fired _X_Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:**<br>14.0 MMBtu/hr | **Type and Btu/hr rating of burners:**<br>NA |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**
Natural Gas - 0.014 MMscf/hr or 120 MMscf/yr

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| Natural Gas | | | 1,020 |
| | | | |
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | 1.15 | 5.05 |
| Nitrogen Oxides ($NO_X$) | 1.37 | 6.01 |
| Lead (Pb) | 6.86E-6 | 3.01E-5 |
| Particulate Matter ($PM_{2.5}$) | 0.104 | 0.457 |
| Particulate Matter ($PM_{10}$) | 0.104 | 0.457 |
| Total Particulate Matter (TSP) | 0.104 | 0.457 |
| Sulfur Dioxide ($SO_2$) | 8.24E-3 | 3.61E-2 |
| Volatile Organic Compounds (VOC) | 7.55E-2 | 0.331 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Arsenic | 2.75E-6 | 1.20E-5 |
| Benzene | 1.65E-8 | 7.21E-8 |
| Beryllium | 1.65E-7 | 7.21E-7 |
| Cadmium | 1.51E-5 | 6.61E-5 |
| Chromium | 1.92E-5 | 8.24E-5 |
| Cobalt | 1.15E-6 | 5.05E-6 |
| Dichlorobenzene | 1.65E-5 | 7.21E-5 |
| Formaldehyde | 1.03E-3 | 4.51E-3 |
| Hexane | 2.47E-2 | 0.108 |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Manganese | 5.22E-6 | 2.28E-5 |
| Mercury | 3.57E-6 | 1.56E-5 |
| Naphthalene | 8.37E-6 | 3.67E-5 |
| Nickel | 2.88E-5 | 1.26E-4 |
| Polycyclic Organic Matter | 1.21E-6 | 5.30E-6 |
| Selenium | 3.29E-7 | 1.44E-6 |
| Toluene | 3.29E-7 | 2.04E-4 |
| Total HAP | 2.59E-2 | 0.113 |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1)
Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2)
Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3) No person shall cause, suffer, allow or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1)
Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1) For the purpose of determining compliance with the opacity limits of 5.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 5.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1) In order to demonstrate compliance with the particulate matter emission limits, the combustion sources shall burn only natural gas and shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. In addition, the permittee shall record the total quantity of fuel burned in such units monthly. Records shall be maintained on site and shall be made available upon request to the Director or his/her duly authorized representative.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** NA |
|---|---|---|
| 002-08 | Annealing Furnace #6 | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
This furnace is used to thermally change the mechanical properties of the aluminum.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| Sunbeam | | F04/05-73 |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| 01/01/1973 | 01/01/1973 | 12/01/2001 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
5.0 MMBtu/hr

| **Maximum Hourly Throughput:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 5.0 MMBtu/hr | 43,800 MMBtu/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** _X_Yes ___ No | **If yes, is it?**<br>___ Indirect Fired _X_Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:**<br>5.0 MMBtu/hr | **Type and Btu/hr rating of burners:**<br>NA |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**
Natural Gas - 0.005 MMscf/hr or 42.9 MMscf/yr

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| Natural Gas | | | 1,020 |
| | | | |
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | 0.412 | 1.80 |
| Nitrogen Oxides ($NO_X$) | 0.490 | 2.15 |
| Lead (Pb) | 2.45E-6 | 1.07E-5 |
| Particulate Matter ($PM_{2.5}$) | 3.73E-2 | 0.163 |
| Particulate Matter ($PM_{10}$) | 3.73E-2 | 0.163 |
| Total Particulate Matter (TSP) | 3.73E-2 | 0.163 |
| Sulfur Dioxide ($SO_2$) | 2.94E-3 | 1.29E-2 |
| Volatile Organic Compounds (VOC) | 2.70E-2 | 0.118 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Arsenic | 9.80E-7 | 4.29E-6 |
| Benzene | 5.88E-9 | 2.58E-8 |
| Beryllium | 5.88E-8 | 2.58E-7 |
| Cadmium | 5.39E-6 | 2.36E-5 |
| Chromium | 6.86E-6 | 3.01E-5 |
| Cobalt | 4.12E-7 | 1.80E-6 |
| Dichlorobenzene | 5.88E-6 | 2.58E-5 |
| Formaldehyde | 3.68E-4 | 1.61E-3 |
| Hexane | 8.82E-3 | 3.86E-2 |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Manganese | 1.86E-6 | 8.16E-6 |
| Mercury | 1.27E-6 | 5.58E-6 |
| Naphthalene | 2.99E-6 | 1.31E-5 |
| Nickel | 1.03E-5 | 4.51E-5 |
| Polycyclic Organic Matter | 4.32E-7 | 1.89E-6 |
| Selenium | 1.18E-7 | 5.15E-7 |
| Toluene | 1.67E-5 | 7.30E-5 |
| Total HAP | 9.25E-3 | 4.05E-2 |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1)
Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2)
Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3) No person shall cause, suffer, allow or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1)
Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1) For the purpose of determining compliance with the opacity limits of 5.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 5.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1) In order to demonstrate compliance with the particulate matter emission limits, the combustion sources shall burn only natural gas and shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. In addition, the permittee shall record the total quantity of fuel burned in such units monthly. Records shall be maintained on site and shall be made available upon request to the Director or his/her duly authorized representative.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** NA |
|---|---|---|
| 002-09 | Annealing Furnace #7 | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
This furnace is used to thermally change the mechanical properties of the aluminum.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| Sunbeam | | |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| 01/01/1973 | 01/01/1973 | 12/01/2001 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
5.0 MMBtu/hr

| **Maximum Hourly Throughput:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 5.0 MMBtu/hr | 43,800 MMBtu/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** _X_Yes ___ No | **If yes, is it?**<br>___ Indirect Fired _X_Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:**<br>5.0 MMBtu/hr | **Type and Btu/hr rating of burners:**<br>NA |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**
Natural Gas - 0.005 MMscf/hr or 42.9 MMscf/yr

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| Natural Gas | | | 1,020 |
| | | | |
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | 0.412 | 1.80 |
| Nitrogen Oxides ($NO_X$) | 0.490 | 2.15 |
| Lead (Pb) | 2.45E-6 | 1.07E-5 |
| Particulate Matter ($PM_{2.5}$) | 3.73E-2 | 0.163 |
| Particulate Matter ($PM_{10}$) | 3.73E-2 | 0.163 |
| Total Particulate Matter (TSP) | 3.73E-2 | 0.163 |
| Sulfur Dioxide ($SO_2$) | 2.94E-3 | 1.29E-2 |
| Volatile Organic Compounds (VOC) | 2.70E-2 | 0.118 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Arsenic | 9.80E-7 | 4.29E-6 |
| Benzene | 5.88E-9 | 2.58E-8 |
| Beryllium | 5.88E-8 | 2.58E-7 |
| Cadmium | 5.39E-6 | 2.36E-5 |
| Chromium | 6.86E-6 | 3.01E-5 |
| Cobalt | 4.12E-7 | 1.80E-6 |
| Dichlorobenzene | 5.88E-6 | 2.58E-5 |
| Formaldehyde | 3.68E-4 | 1.61E-3 |
| Hexane | 8.82E-3 | 3.86E-2 |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Manganese | 1.86E-6 | 8.16E-6 |
| Mercury | 1.27E-6 | 5.58E-6 |
| Naphthalene | 2.99E-6 | 1.31E-5 |
| Nickel | 1.03E-5 | 4.51E-5 |
| Polycyclic Organic Matter | 4.32E-7 | 1.89E-6 |
| Selenium | 1.18E-7 | 5.15E-7 |
| Toluene | 1.67E-5 | 7.30E-5 |
| Total HAP | 9.25E-3 | 4.05E-2 |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1)
Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2)
Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3) No person shall cause, suffer, allow or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1)
Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1) For the purpose of determining compliance with the opacity limits of 5.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 5.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1) In order to demonstrate compliance with the particulate matter emission limits, the combustion sources shall burn only natural gas and shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. In addition, the permittee shall record the total quantity of fuel burned in such units monthly. Records shall be maintained on site and shall be made available upon request to the Director or his/her duly authorized representative.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** NA |
|---|---|---|
| 002-04 | Annealing Furnace #8 | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
This furnace is used to thermally change the mechanical properties of the aluminum.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| Rockwell | | |

| **Construction date:** | **Installation date:** | **Modification date(s):** |
|---|---|---|
| 01/01/1994 | 01/01/1994 | 12/01/1994 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
6.0 MMBtu/hr

| **Maximum Hourly Throughput:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 6.0 MMBtu/hr | 52,560 MMBtu/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** _X_Yes ___ No | **If yes, is it?**<br>___ Indirect Fired _X_Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:**<br>6.0 MMBtu/hr | **Type and Btu/hr rating of burners:**<br>NA |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**
Natural Gas - 0.0059 MMscf/hr or 51.6 MMscf/yr

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| Natural Gas | | | 1,020 |
| | | | |
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

***Emissions Data***

| Criteria Pollutants | Potential Emissions | |
|---|---|---|
| | PPH | TPY |
| Carbon Monoxide (CO) | 0.494 | 2.16 |
| Nitrogen Oxides ($NO_X$) | 0.588 | 2.58 |
| Lead (Pb) | 2.94E-6 | 1.29E-5 |
| Particulate Matter ($PM_{2.5}$) | 4.47E-2 | 0.196 |
| Particulate Matter ($PM_{10}$) | 4.47E-2 | 0.196 |
| Total Particulate Matter (TSP) | 4.47E-2 | 0.196 |
| Sulfur Dioxide ($SO_2$) | 3.53E-3 | 1.55E-2 |
| Volatile Organic Compounds (VOC) | 3.24E-2 | 0.142 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Arsenic | 1.18E-6 | 5.15E-6 |
| Benzene | 7.06E-9 | 3.09E-8 |
| Beryllium | 7.06E-8 | 3.09E-7 |
| Cadmium | 6.47E-6 | 2.83E-5 |
| Chromium | 8.24E-6 | 3.61E-5 |
| Cobalt | 4.94E-7 | 2.16E-6 |
| Dichlorobenzene | 7.06E-6 | 3.09E-5 |
| Formaldehyde | 4.41E-4 | 1.93E-3 |
| Hexane | 1.06E-2 | 4.64E-2 |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

| ***Emissions Data*** | |
|---|---|
| Criteria Pollutants | Potential Emissions |

| | PPH | TPY |
|---|---|---|
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| Manganese | 2.24E-6 | 9.79E-6 |
| Mercury | 1.53E-6 | 6.70E-6 |
| Naphthalene | 3.59E-6 | 1.57E-5 |
| Nickel | 1.24E-5 | 5.41E-5 |
| Polycyclic Organic Matter | 5.19E-7 | 2.27E-6 |
| Selenium | 1.41E-7 | 6.18E-7 |
| Toluene | 2.00E-5 | 8.76E-5 |
| Total HAP | 1.11E-2 | 4.86E-2 |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

The emission factors were obtained from the USEPA's Compilation of Air Pollution Emission Factors (AP-42), Volume I, 5th Edition, Section 1.4 - Natural Gas Combustion (July 1998).

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1)
Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2)
Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3) No person shall cause, suffer, allow or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1)
Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1) For the purpose of determining compliance with the opacity limits of 5.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 5.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1) In order to demonstrate compliance with the particulate matter emission limits, the combustion sources shall burn only natural gas and shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. In addition, the permittee shall record the total quantity of fuel burned in such units monthly. Records shall be maintained on site and shall be made available upon request to the Director or his/her duly authorized representative.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** NA |
|---|---|---|
| 002-06 | Purge Gas Generator #2 | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
This unit generates purge gas which is used in to create a non-oxidizing atmosphere within the furnace. This generator services annealing furnaces #4 and #5. The purge gas generator produces carbon dioxide which along with its products of natural gas combustion is vented through the furnace it services (see Figure #3).

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| Kemp | DCV-30 | 2-1710 |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| 01/01/1985 | 01/01/1985 | 12/01/1985 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
70.08 MMscf/hr

| **Maximum Hourly Throughput:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 0.03 MMscf/hr | 262.8 MMscf/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** _X_Yes ___ No | **If yes, is it?**<br>___ Indirect Fired ___Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:** | **Type and Btu/hr rating of burners:** |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**
Natural Gas - 0.03 MMscf/hr or 262.8 MMscf/yr

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| Natural Gas | | | 1,020 |
| | | | |
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

***Emissions Data***

| Criteria Pollutants | Potential Emissions | |
|---|---|---|
| | PPH | TPY |
| Carbon Monoxide (CO) | 0.105 | 0.46 |
| Nitrogen Oxides ($NO_X$) | 0.42 | 1.84 |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | 0.009 | 0.04 |
| Particulate Matter ($PM_{10}$) | 0.009 | 0.04 |
| Total Particulate Matter (TSP) | 0.009 | 0.04 |
| Sulfur Dioxide ($SO_2$) | 0.002 | 0.008 |
| Volatile Organic Compounds (VOC) | 0.008 | 0.037 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

Based on emission estimates provided by Novelis using AIR4 emission factors.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1)
Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2)
Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3) No person shall cause, suffer, allow or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1)
Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1) For the purpose of determining compliance with the opacity limits of 5.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 5.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1) In order to demonstrate compliance with the particulate matter emission limits, the combustion sources shall burn only natural gas and shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. In addition, the permittee shall record the total quantity of fuel burned in such units monthly. Records shall be maintained on site and shall be made available upon request to the Director or his/her duly authorized representative.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **List any control devices associated with this emission unit:** NA |
|---|---|---|
| 002-07 | Purge Gas Generator #3 | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
This unit generates purge gas which is used in to create a non-oxidizing atmosphere within the furnace. This generator services annealing furnaces #6 and #7. The purge gas generator produces carbon dioxide which along with its products of natural gas combustion is vented through the furnace it services (see Figure #3).

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| Sunbeam | LREX-15 | F-06/07 |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| 01/01/1985 | 01/01/1985 | 12/01/1985 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
131.4 MMscf/hr

| **Maximum Hourly Throughput:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 0.015 MMscf/hr | 131.4 MMscf/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** _X_Yes ___ No | **If yes, is it?**<br>___ Indirect Fired ___Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:** | **Type and Btu/hr rating of burners:** |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**
Natural Gas - 0.015 MMscf/hr or 131.4 MMscf/yr

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| Natural Gas | | | 1,020 |
| | | | |
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

***Emissions Data***

| Criteria Pollutants | Potential Emissions | |
|---|---|---|
| | PPH | TPY |
| Carbon Monoxide (CO) | 0.053 | 0.23 |
| Nitrogen Oxides ($NO_X$) | 0.210 | 0.93 |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | 0.005 | 0.02 |
| Particulate Matter ($PM_{10}$) | 0.005 | 0.02 |
| Total Particulate Matter (TSP) | 0.005 | 0.02 |
| Sulfur Dioxide ($SO_2$) | 0.0009 | 0.004 |
| Volatile Organic Compounds (VOC) | 0.0042 | 0.018 |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

Based on emission estimates provided by Novelis using AIR4 emission factors.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1)
Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2)
Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§7-3.1 and 7-3.2 (Title V Permit Condition 5.1.1) No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except for smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

Particulate Emissions - 45CSR§7-4.1 (Title V Permit Condition 5.1.2) No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

Particulate Emissions - 45CSR§7-5.1 (Title V Permit Condition 5.1.3) No person shall cause, suffer, allow or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1)
Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1)

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Visible Emissions – 45CSR§30-5.1.c. (Title V Permit Condition 5.2.1) For the purpose of determining compliance with the opacity limits of 5.1.1., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s), the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources covered under condition 5.1.1. as soon a practicable, but within seventy-two (72) hours of the final visual emission check, unless the permittee can demonstrate a valid reason that the time frame should be extended.

Particulate Emissions – 40CSR§30-5.1.c. (Title V Permit Condition 5.4.1) In order to demonstrate compliance with the particulate matter emission limits, the combustion sources shall burn only natural gas and shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices. In addition, the permittee shall record the total quantity of fuel burned in such units monthly. Records shall be maintained on site and shall be made available upon request to the Director or his/her duly authorized representative.

**Are you in compliance with all applicable requirements for this emission unit?** _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **Emission unit name:** |
|---|---|---|
| 003 | Used Lubricant Recycling Systems | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
Recycling systems for used lubricant that involves vacuum distillation at Mill #1 as well as filtering of the oil at Mill #1 and Mill #2. This system has a capture efficiency of approximately 85%.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| NA | NA | NA |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| 01/01/1956 | 01/01/1956 | 01/01/1956 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
50 gallons/hr

| **Maximum Hourly Throughput[1]:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 50 gallons/hr | 438,000 gallons/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** __Yes _X_ No | **If yes, is it?**<br>___ Indirect Fired ___Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:** | **Type and Btu/hr rating of burners:** |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions[2] | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[2]Emissions are considered negligible in comparison to facility-wide VOC emissions and have not been quantified.**

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

**Are you in compliance with all applicable requirements for this emission unit?** _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **Emission unit name:** |
|---|---|---|
| 003 | Vacuum Distillation System | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
Oil from the vacuum distillation system, from Mill #1 Oil Cellar and from the vacuum distillation system to the recovered coolant/lubricant storage tanks back to the Rolling Mills. The heavier oils at the bottom of the Coolant/Lubricant Storage Tanks are shipped off-site.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| NA | NA | NA |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| 1979 | 1979 | 1979 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
25 gallons/hr

| **Maximum Hourly Throughput[1]:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 25 gallons/hr | 220,000 gallons/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** __Yes _X_ No | **If yes, is it?**<br>___ Indirect Fired ___Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:** | **Type and Btu/hr rating of burners:** |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions[2] | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[2]Emissions are considered negligible in comparison to facility-wide VOC emissions and have not been quantified.**

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

**Are you in compliance with all applicable requirements for this emission unit?** _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **Emission unit name:** |
|---|---|---|
| 003 | Vacuum Distillation System - Oil Pollution Center and Rolling Mill Process Tanks | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
Vacuum Distillation System - Oil Pollution Center and Rolling Mill Process Tanks. From the vacuum distillation system to the Recovered Coolant/Lubricant Storage Tanks to the Rolling Mills. The heavier oils at the bottom of the Coolant/Lubricant Storage Tanks are shipped off-site.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| NA | NA | NA |
| **Construction date:** | **Installation date:** | **Modification date(s):** |
| 1991 | 1991 | NA |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
53 gallons/hr

| **Maximum Hourly Throughput[1]:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| 53 gallons/hr | 464,000 gallons/yr | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** __Yes _X_ No | **If yes, is it?**<br>___ Indirect Fired ___Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:** | **Type and Btu/hr rating of burners:** |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| | | | |
| | | | |

***[1]Throughput information based on Novelis's Title V permit.***

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions[2] | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[2]Emissions are considered negligible in comparison to facility-wide VOC emissions and have not been quantified.**

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

**Are you in compliance with all applicable requirements for this emission unit?** _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

| **Emission unit ID number:** | **Emission unit name:** | **Emission unit name:** |
|---|---|---|
| 005 | Lubricant Recycling | |

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**
Lubricant recycling captures the lubricant used by the mills through a drainage system. The captured lubricant is filtered, vacuumed distilled, and transferred to the reclaimed oil tanks. The heavy oil portions are shipped off-site.

| **Manufacturer:** | **Model number:** | **Serial number:** |
|---|---|---|
| NA | NA | NA |

| **Construction date:** | **Installation date:** | **Modification date(s):** |
|---|---|---|
| 01/01/1956 | 01/01/1956 | 01/01/1956 |

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**
Unknown

| **Maximum Hourly Throughput[1]:** | **Maximum Annual Throughput[1]:** | **Maximum Operating Schedule:** |
|---|---|---|
| Unknown | Unknown | 24 hr/day, 7 days/wk, 52 wk/yr<br>8760 hr/yr |

***Fuel Usage Data*** **(fill out all applicable fields)**

| **Does this emission unit combust fuel?** __Yes _X_ No | **If yes, is it?**<br>___ Indirect Fired ___Direct Fired |
|---|---|
| **Maximum design heat input and/or maximum horsepower rating:** | **Type and Btu/hr rating of burners:** |

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

| Fuel Type | Max. Sulfur Content | Max. Ash Content | BTU Value |
|---|---|---|---|
| | | | |
| | | | |

*[1]Throughput information based on Novelis's Title V permit.*

| ***Emissions Data*** | | |
|---|---|---|
| Criteria Pollutants | Potential Emissions[2] | |
| | PPH | TPY |
| Carbon Monoxide (CO) | | |
| Nitrogen Oxides ($NO_X$) | | |
| Lead (Pb) | | |
| Particulate Matter ($PM_{2.5}$) | | |
| Particulate Matter ($PM_{10}$) | | |
| Total Particulate Matter (TSP) | | |
| Sulfur Dioxide ($SO_2$) | | |
| Volatile Organic Compounds (VOC) | | |
| Hazardous Air Pollutants | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |
| | | |
| Regulated Pollutants other than Criteria and HAP | Potential Emissions | |
| | PPH | TPY |
| | | |
| | | |
| | | |

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[2]Emissions are considered negligible in comparison to facility-wide VOC emissions and have not been quantified.**

*Applicable Requirements*

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

____ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

**Are you in compliance with all applicable requirements for this emission unit?** _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

# Air Pollution Control Device Form

# ATTACHMENT G - Air Pollution Control Device Form

| **Control device ID number:** 001 | **List all emission units associated with this control device.** Rolling Mill #1 | |
|---|---|---|
| **Manufacturer:** Robert C. Murphy, Inc | **Model number:** NA | **Installation date:** 01/01/1979 |

**Type of Air Pollution Control Device:**

| | | |
|---|---|---|
| ___ Baghouse/Fabric Filter | ___ Venturi Scrubber | ___ Multiclone |
| ___ Carbon Bed Adsorber | ___ Packed Tower Scrubber | ___ Single Cyclone |
| ___ Carbon Drum(s) | ___ Other Wet Scrubber | ___ Cyclone Bank |
| ___ Catalytic Incinerator | ___ Condenser | ___ Settling Chamber |
| ___ Thermal Incinerator | ___ Flare | _X_ Other (describe) __Oil Demister____ |
| ___ Wet Plate Electrostatic Precipitator | | ___ Dry Plate Electrostatic Precipitator |

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

| Pollutant | Capture Efficiency | Control Efficiency |
|---|---|---|
| PM10 | 85% | 60% |
| | | |
| | | |
| | | |

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

The gas flow rate into the collector is approximately 36,000 acfm at 110°F and ambient pressure. The inlet velocity is 55 ft/sec.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** The pollutant specific emission unit does not have potential pre-control device emissions of the applicable regulated air pollutant (PM10) that are equal to or greater than the Title V major source threshold levels.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

EPA method 9 certified personnel conducts a monthly visible emissions check on the equipment.

# ATTACHMENT G - Air Pollution Control Device Form

| **Control device ID number:** 002 | **List all emission units associated with this control device.** Rolling Mill #2 | |
|---|---|---|
| **Manufacturer:** Robert C. Murphy, Inc. | **Model number:** NA | **Installation date:** 01/01 /1981 |

**Type of Air Pollution Control Device:**

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare _X_ Other (describe) __Oil Demister____

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

| Pollutant | Capture Efficiency | Control Efficiency |
|---|---|---|
| PM10 | 85% | 60% |
| | | |
| | | |

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

The gas flow rate into the collector is approximately 48,000 acfm at 110ºF and ambient pressure.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** The pollutant specific emission unit does not have potential pre-control device emissions of the applicable regulated air pollutant (PM10) that are equal to or greater than the Title V major source threshold levels.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

EPA method 9 certified personnel conducts a monthly visible emissions check on the equipment.

**OBG**

THERE'S A WAY