

AIR EMISSION PERMIT NO. 05300138 - 003

IS ISSUED TO

Northland Aluminum Products Inc

NORTHLAND ALUMINUM PRODUCTS INC

5005 County Road 25

St. Louis Park, Hennepin County, MN 55416

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Issuance Date
Total Facility Operating Permit	09/24/2001
Major Amendment	12/22/2005
Major Amendment	See Below

This permit authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Pt 70/Limits to Avoid NSR

Authorization to Construct and Operate Issuance Date: February 26, 2008

Final Permit Issuance Date: March 12, 2008

Expiration: September 24, 2006*
All Title I Conditions do not expire.

* The Permittee may continue to operate this facility after the expiration date of the permit, per the provision under Minn. R. 7007.0450, subp. 3. (Title V Reissuance Application was timely.)

Jeff J. Smith, Manager
Air Quality Permits Section
Industrial Division

for Brad Moore
Commissioner
Minnesota Pollution Control Agency

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Table A: Limits and Other Requirements

Table B: Submittals

Table C: Not used in this permit

Appendix A: Insignificant Activities

NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	651-296-6300
Outside Metro Area	1-800-657-3864
TTY	651-282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. However, the permit shield does not apply to any national ambient air quality standard adopted under section 109 of the Clean Air Act and any state ambient air quality standard under Minn. R. ch. 7009.

Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Northland Aluminum Products manufactures metal and plastic cookware/bakeware and conducts some custom parts surface coating. Air emission sources at the facility include plastics compression molding, metal surface preparation (sandblasting and thermal spraying), coating, and combustion. Coating operations includes spray application of liquid and powder coatings. The site combustion equipment includes boilers and curing ovens fueled by natural gas with propane back up. The facility's thermal spraying and sandblasting operations are controlled by baghouses. All of the facility's coating lines have panel filters for particulate control.

This permit was written as a flex cap permit for the painting and/or coating booths, molding equipment, sandblasting, and the curing ovens. The permit authorizes the Permittee to add, delete or modify coating booths, molding equipment, sandblasting operations, or curing ovens at any time over the life of the permit. The stationary source as changed must abide by the usage limits and meet all conditions of the permit at all times.

Permit Action 002

This amendment does three things. It changes the requirements for calculating particulate emissions, a Title I Condition, such that the emissions from sandblasting and thermal spraying are included. These were inadvertently left out of the original permit. Also changed is an allowance for the company to use a control efficiency for the particulate matter control equipment that is based on stack emission testing rather than that specified in Minn. R. 7007.0020-0080.

Secondly, a correction is made such that the emissions not transferred to the coated object are calculated rather than calculating emissions such that the solid matter transferred to the coated object are calculated. The surface coating particulate calculation included in Permit No. 05300138-001, in error, calculated solids transferred.

It removes an incorrect reference in the permit that states that the limit is set to keep the source from being classified as a major Part 70 source. The source is a major Part 70 source.

There is no change in allowable or actual emissions with this permitting action.

Permit Action 003

This amendment is for the replacement of EU 020, the American Standard Boiler, with EU 034, the Pennant Boiler. The new boiler will use the stack from the old boiler (SV 020). EU 021, the Kewanee Steam Boiler, was removed from the facility and the permit. Given the PTE of the new boiler and the PTE of the units being removed, the PTE for the facility will be decreasing for all pollutants. GP 001 containing IPER requirements was removed and the requirements were added to GP 004. Emission units, control equipment, and stack vents were added to the facility description and the PTE data was also updated. Several requirements and citations were updated to follow current policies.

NAAQS Modeling: Initial screening in 2003 of the Northland Aluminum Products facility predicted concentrations above the NAAQS 24-Hour PM₁₀ standard. More refined screening of PTE using the modeling information submitted by Northland Aluminum Products and the screening model DISPERSE was conducted in December of 2007. The results of the DISPERSE screening show that Northland Aluminum Products has predicted concentrations above the NAAQS 24-Hour PM₁₀ standard. The 24-hour PM₁₀ NAAQS standard is 150 µg/m³, refined screening shows Northland Aluminum Products 24-hour PM₁₀ of 1925 µg/m³. Requirements for the facility to perform more refined modeling were added to the permit. See Attachment 3 to this technical support document (TSD) for detailed modeling tables.

Initial screening also showed predicted concentrations above the Lead standard; however, the facility no longer uses lead coatings as indicated by Attachment 4 to this TSD.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item:**Total Facility**

What to do	Why to do it
SOURCE-SPECIFIC REQUIREMENTS	hdr
Insignificant Activities: The Permittee shall evaluate the emissions from changes made under Minn. R. 7007.1300 on an annual basis. The Permittee shall not make any change that causes emissions to exceed permit thresholds in Minn. R. ch. 7007 without first obtaining a major permit amendment.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
This permit establishes limits on the facility to keep it a minor source under New Source Review. The Permittee cannot make any change at the source that would make the source a major source under New Source Review until a permit amendment has been issued. This includes changes that might otherwise qualify as insignificant modifications and minor or moderate amendments.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
OPERATIONAL REQUIREMENTS	hdr
The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subps. 14 and 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2</p>
<p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.</p>	<p>Minn. R. 7017.2025, subp. 3</p>
MONITORING REQUIREMENTS	hdr
<p>Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
MODELING REQUIREMENTS	hdr
<p>This permit requires modeling to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS). The Permittee may not make any change at the source that would result in an increase in PM10 emissions, until it can be demonstrated that emissions from the facility as permitted do not cause an exceedance of the NAAQS. This includes changes that might otherwise qualify as insignificant modifications and minor or moderate amendments. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.</p>	<p>40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080</p>
RECORDKEEPING	hdr
<p>Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</p>
<p>Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.</p>	<p>Minn. R. 7007.0800, subp. 5(B)</p>
<p>When the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. For nonexpiring permits, these records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.</p>	<p>Minn. R. 7007.1200, subp. 4</p>
REPORTING/SUBMITTALS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.</p>	Minn. R. 7019.1000, subp. 3
<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.</p>	Minn. R. 7019.1000, subp. 2
<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.</p>	Minn. R. 7019.1000, subp. 1
<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. 	Minn. R. 7019.1000, subp. 1
<p>Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.</p>	Minn. R. 7007.1150 through Minn. R. 7007.1500
<p>Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).</p>	Minn. R. 7007.1400, subp. 1(H)
<p>Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. The Permittee shall submit this on a form approved by the Commissioner.</p>	Minn. R. 7019.3000 through Minn. R. 7019.3100
<p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-4**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: GP 002 Indirect Heating Equipment**Associated Items:** EU 019 Continental Steam Boiler

EU 026 Line C Curing Oven

EU 028 Line E Curing Oven

EU 034 Pennant Boiler

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . This limit applies to each unit individually. The highest potential to emit from these units is .008 lb/MMBtu due to equipment design and allowable fuels.	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies to each unit individually.	Minn. R. 7011.0510, subp. 2
The permittee shall burn only natural gas or propane in EU019, EU026, EU028, and EU034. Records of fuel usage shall be recorded and kept on-site.	Minn. R. 7011.0510
Submit a 112(j) determination within 30 days of startup of EU034 to the MPCA.	40 CFR Section 63.52(b)(1)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-5**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: GP 003 Direct Heating Equipment

Associated Items: EU 024 Line A Curing Oven
EU 025 Line B Curing Oven
EU 027 Line D Curing Oven
EU 029 Line F Curing Oven
EU 030 Line G Curing Oven
EU 031 Line H1 Curing Oven
EU 032 Line J2 Curing Oven
EU 033 Line J3 Curing Oven

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies to each unit individually.	Minn. R. 7011.0610, subp. 1A(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies to each unit individually.	Minn. R. 7011.0610, subp. 1A(2)
The permittee shall burn only natural gas or propane in EU024, EU025, EU027, EU029, EU030, EU031, EU032 and EU033. Records of fuel usage shall be recorded and kept on-site.	Minn. R. 7011.0610

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-6**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: GP 004 VOC and PM Sources**Associated Items:** EU 001 Line A Primer Paint Booth

EU 002 Line A Finish Paint Booth

EU 003 Line B Primer Paint Booth

EU 004 Line B Finish Paint Booth

EU 005 Line C Primer Paint Booth

EU 006 Line C Finish Paint Booth

EU 007 Line D Primer Paint Booth

EU 008 Line D Finish Paint Booth

EU 009 Line E Paint Booth

EU 010 Line F Primer Paint Booth

EU 011 Line F Finish Paint Booth

EU 012 Line G Spray Booth

EU 013 Line H1 Paint Booth

EU 014 Line J1 Paint Booth

EU 015 Line J2 Paint Booth

EU 016 Line J3 Paint Booth

EU 017 Line H2 Paint Booth

EU 018 Thermal Spray Booth

EU 022 Molding Room Including 19 Compression Molding Presses

EU 023 Sandblasting Reclaimer

What to do	Why to do it
INDUSTRIAL PROCESS EQUIPMENT REQUIREMENTS (EU001-EU018, EU023)	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. This limit applies to each unit individually.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
For periodic monitoring requirements see Group 5 for the Panel Filters on the paint booths and CE 018 and CE 019 for the fabric filters on the Thermal Spray Booth and the Sandblasting Reclaimer respectively.	hdr
VOC & PM REQUIREMENTS	hdr
The Permittee shall vent emissions from EU001-EU017 and EU023 to control equipment meeting the requirements of GP 005.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall vent emissions from EU018 to control equipment meeting the requirements of CE018.	
Volatile Organic Compounds: less than or equal to 200 tons/year using 12-month Rolling Sum by restricting the total paints, coatings, solvents and molding compounds used in any 12-month period.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 100 tons/year using 12-month Rolling Sum by restricting the total paints, coatings, solvents and molding compounds used in any 12-month period.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 100 tons/year using 12-month Rolling Sum by restricting the total paints, coatings, solvents and molding compounds used in any 12-month period.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-7**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Daily Recordkeeping. On each day of operation, the Permittee shall record the total quantity of all coatings and other VOC, solids, and HAP containing materials used at the facility. This shall be based on written usage logs and/or flowmeters and/or delivery records.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800. subp. 4 and 5
Monthly Recordkeeping - Solids Usage. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of each solids containing material for the previous calendar month using the daily usage records. This record shall also include solids contents of each material as determined by the Material Content requirement of this permit. 2) The solids usage for the previous month using the formulas specified in this permit. 3) The 12 month rolling sum solids usage for the previous 12 month period by summing the monthly solids usage data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
Monthly Recordkeeping -- VOC Emissions. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of VOC containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC and solids contents of each material as determined by the Material Content requirement of this permit. 2) The VOC emissions for the previous month using the formulas specified in this permit. 3) The 12 month rolling sum VOC emissions for the previous 12 month period by summing the monthly VOC emissions data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
By the 15th of each month the Permittee shall calculate PM, PM-10, and VOC emissions for the previous 12 months using the following equations: $E \text{ (VOC)} = \text{sum}[X \text{ (coatings/solvents)} \times U \text{ (coatings/solvents)}] + \text{sum}[X \text{ (molding)} \times 0.03 \times U \text{ (molding)}] - \text{sum}[X \text{ (offsite recycling)} \times U \text{ (offsite recycling)}]$ $E \text{ (PM/PM-10)} = \text{sum}[Y \text{ (coatings)} \times (1-T) \times U \text{ (coatings)} \times (1-CE)] + \text{sum}[W \text{ (blasting/thermal spray)} \times (1 - CE \text{ (blasting/thermal spray)}) / CE \text{ (blasting/thermal spray)}]$	Minn. R. 7007.0800, subp. 4 and 5
Where: E = 12-month rolling sum emissions (tons/yr) X = VOC content by weight (lb VOC/lb material) Y = Solids content by weight (lb solid/lb material) U = Usage for the previous 12-month rolling period (tons/yr) 0.03 = VOC emission factor for closed molding process (lb emitted/lb VOC used) T = Transfer efficiency CE = Control Efficiency, Minn. R. 7011.0070 or the control efficiency demonstrated by stack emission testing. W = Weight of particulate or solids collected by blasting/thermal spraying control equipment (tons/yr)	continued from above
The Permittee may use a control efficiency for each piece of particulate control equipment if stack emission testing is performed pursuant to Minn. R. Chapter 7017. In the event that the Permittee chooses to do so, all notification and submittal requirements of Chapter 7017 shall be met. The Permittee may use the tested control efficiency in its calculations upon written approval of the MPCA.	continued from above
Material Content: VOC, HAPs, and Solids (PM and PM<10 microns) contents in coating materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Northland Aluminum Products Inc
Permit Number: 05300138 - 003

<p>Waste Credit: If the Permittee elects to obtain credit for HAPs, solids, and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC, solids, and/or total and individual HAP content for each credited shipment.</p> <p>1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, solids, total HAP, and each individual HAP, excluding water.</p> <p>2) The Permittee may use supplier data for raw materials to determine the VOC, solids, and total and individual HAP contents of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC, solids, and total and individual HAP content of any of the materials.</p>	<p>Minn. R. 7007.0800, subp. 4 and 5</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-9**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: GP 005 Panel Filters**Associated Items:** CE 001 Mat or Panel Filter

CE 002 Mat or Panel Filter

CE 003 Mat or Panel Filter

CE 004 Mat or Panel Filter

CE 005 Mat or Panel Filter

CE 006 Mat or Panel Filter

CE 007 Mat or Panel Filter

CE 008 Mat or Panel Filter

CE 009 Mat or Panel Filter

CE 010 Mat or Panel Filter

CE 011 Mat or Panel Filter

CE 012 Mat or Panel Filter

CE 013 Mat or Panel Filter

CE 014 Mat or Panel Filter

CE 015 Mat or Panel Filter

CE 016 Mat or Panel Filter

CE 017 Mat or Panel Filter

What to do	Why to do it
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency, for Total Particulate Matter: greater than or equal to 68 percent	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency, for Particulate Matter < 10 micron: greater than or equal to 68 percent	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall operate and maintain the panel filters any time that any process equipment controlled by the panel filters is(are) in operation. The Permittee shall document periods of non-operation of the control equipment.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If the filters or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Filters: The Permittee shall operate and maintain each filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Initial Hood Certification and Evaluation: The control device hood must conform to the requirements listed in Minn. R. 7011.0070, subp. 1, and the Permittee shall certify this as specified in Minn. R. 7011.0070, subp. 3. The Permittee shall maintain a copy of the evaluation and certification on site.	Minn. R. 7007.0800, subp. 4, 5 and 14
Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method. The Permittee shall maintain a copy of the annual evaluation on site.	Minn. R. 7007.0800, subp. 4, 5 and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-10**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: GP 006 Surface Coating Operations (NESHAP MMMM)**Associated Items:** EU 001 Line A Primer Paint Booth

EU 002 Line A Finish Paint Booth

EU 003 Line B Primer Paint Booth

EU 004 Line B Finish Paint Booth

EU 005 Line C Primer Paint Booth

EU 006 Line C Finish Paint Booth

EU 007 Line D Primer Paint Booth

EU 008 Line D Finish Paint Booth

EU 009 Line E Paint Booth

EU 010 Line F Primer Paint Booth

EU 011 Line F Finish Paint Booth

EU 012 Line G Spray Booth

EU 013 Line H1 Paint Booth

EU 014 Line J1 Paint Booth

EU 015 Line J2 Paint Booth

EU 016 Line J3 Paint Booth

EU 017 Line H2 Paint Booth

EU 018 Thermal Spray Booth

What to do	Why to do it
NESHAP MMMM REQUIREMENTS	hdr
Comply with the "Surface Coating of Miscellaneous Metal Parts and Products" category standard, as it applies, after promulgation as a final rule.	40 CFR Section 63, subp. MMMM

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-11**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: GP 007 Plastic Surface Coating Operations (NESHAP PPPP)

Associated Items: EU 001 Line A Primer Paint Booth
EU 002 Line A Finish Paint Booth
EU 003 Line B Primer Paint Booth
EU 004 Line B Finish Paint Booth
EU 005 Line C Primer Paint Booth
EU 006 Line C Finish Paint Booth
EU 007 Line D Primer Paint Booth
EU 008 Line D Finish Paint Booth
EU 009 Line E Paint Booth
EU 010 Line F Primer Paint Booth
EU 011 Line F Finish Paint Booth
EU 012 Line G Spray Booth
EU 013 Line H1 Paint Booth
EU 014 Line J1 Paint Booth
EU 015 Line J2 Paint Booth
EU 016 Line J3 Paint Booth
EU 017 Line H2 Paint Booth

What to do	Why to do it
NESHAP PPPP REQUIREMENTS	hdr
Comply with the "Surface Coating of Plastic Parts and Products" category standard, as it applies, after promulgation as a final rule.	40 CFR Section 63, subp. PPPP

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-12**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: EU 022 Molding Room Including 19 Compression Molding Presses**Associated Items:** GP 004 VOC and PM Sources

SV 022 Molding Room Exhaust

SV 023 New Molders Exhaust

What to do	Why to do it
<p>This equipment is subject to 40 CFR Part 63, Subp. WWWW. It must be in compliance with the following requirements by April 21, 2006.</p> <p>These requirements are limited to reinforced plastic composites production in which reinforced and/or nonreinforced plastic composites or plastic molding compounds are manufactured using thermoset resins and/or gel coats that contain styrene to produce plastic composites. This also includes cleaning, mixing, HAP-containing materials storage, and repair operations associated with the production of plastic composites.</p>	hdr
WORK PRACTICE STANDARDS	hdr
1. Uncover, unwrap or expose only one charge per mold cycle per compression/injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle. For machines with robotic loaders, no more than one charge may be exposed prior to the loader. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials. Materials may be uncovered to feed to slitting machines. Materials must be recovered after slitting.	Table 4 to Subpart WWWW of Part 63
2. Do not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.	continued from above
3. Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.	continued from above
REPORTING	hdr
See Table B for the Semiannual Compliance Report required by 40 CFR Section 63.5910.	
Semiannual Compliance Report: due 31 days after the end of each calendar half-year after April 21, 2006.	Table 14 to 40 CFR Part 63, subp. WWWW, 40 CFR Section 63.5910(b) and (d) and Minn. R. 7007.0800, subp. 6(A)(2)
(The compliance report must contain the information below:	
(1) Company name and address.	
(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.	
(3) Date of the report and beginning and ending dates of the reporting period.	
(4) If there are no deviations from any organic HAP emissions limitations (emissions limit and operating limit) that apply to you, and there are no deviations from the requirements for work practice standards in Table 4 to this subpart, a statement that there were no deviations from the organic HAP work practice standards during the reporting period.	continued from above
For each deviation from the requirements for work practice standards that occurs at an affected source, the compliance report must also contain the information in paragraphs below. This includes periods of startup, shutdown, and malfunction.	continued from above
(1) The total operating time of each affected source during the reporting period.	
(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.	

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-13**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: CE 018 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 018 Thermal Spray Booth

What to do	Why to do it
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 5 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0080
Visible Emissions: The Permittee shall check the fabric filter stack (SV # 018) for any visible emissions once each week during daylight hours.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0080
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0080
The control equipment is considered listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall operate and maintain the fabric filter at all times that any process equipment controlled by the fabric filter is operating.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 2(A)
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7011.0075, subp. 3
The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as required by Minn. R. 7011.0075, subp. 2(A) to 2(I).	Minn. R. 7011.0075, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-14**

03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

Subject Item: CE 019 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 023 Sandblasting Reclaimer

What to do	Why to do it
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 1(A)
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 9 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. The Permittee shall record the pressure drop once every 24 hours when in operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0080
Visible Emissions: The Permittee shall check the fabric filter stack (SV # 024) for any visible emissions once each week during daylight hours.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0080
Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0080
The control equipment is considered listed control equipment under Minn. R. 7011.0060 to 7011.0080. The Permittee shall operate and maintain the fabric filter at all times that any process equipment controlled by the fabric filter is operating.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7011.0065, subp. 2(A)
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.	Minn. R. 7011.0075, subp. 3
The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as required by Minn. R. 7011.0075, subp. 2(A) to 2(I).	Minn. R. 7011.0075, subp. 2

TABLE B: SUBMITTALS

B-1 03/12/08

Facility Name: Northland Aluminum Products Inc
Permit Number: 05300138 - 003

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**B-2** 03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Protocol	due 90 days after Permit Issuance. This protocol is for PM10, and will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 180 days after Permit Issuance. To be submitted for PM10. The submittal should adhere to MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility

TABLE B: RECURRENT SUBMITTALS**B-3** 03/12/08

Facility Name: Northland Aluminum Products Inc

Permit Number: 05300138 - 003

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Annual Report	due 30 days after year starting 09/24/2001 . The Permittee shall submit an annual report by January 30 that describes the changes made at the facility during the previous calendar year using the latest MPCA forms. The report shall document the VOC 12-month rolling sum calculations for the previous calendar year and New Source performance Standards that were triggered in the last calendar year. The report shall be submitted with the annual Compliance Certification listed in Table B. As part of the Annual Report, the Permittee shall verify and certify that the facility has maintained minor source status for New Source Review.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The Permittee shall submit this on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL

Facility Name:Northland Aluminum Products Inc

Permit Number: 05300138-003

Appendix A: Insignificant Activities

Insignificant Activity	Currently on site? (Y/N)	General Applicable Emission limit	Discussion
Space heaters fueled by natural gas or propane	Y	PM, variable depending on airflow Opacity \leq 20% with exceptions (Minn. R. 7011.0610)	For these units based on the fuels used and published emissions factors, it is highly unlikely that they could violate the applicable requirement.
Fuel use in furnaces or boilers with a capacity of less than 500,000 Btu/hr.	Y	PM \leq 0.4 lb/MMBtu Opacity \leq 20 % (Minn. R. 7011.0610)	For these units based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are operated and vented outside the building, so testing for PM or opacity is not feasible.
Brazing, soldering or welding equipment	Y	PM, variable depending on airflow Opacity \leq 20% (Minn. R. 7011.0715)	For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are operated and vented inside a building, so testing for PM or opacity is not feasible.
Blueprint copiers and photographic processes	N	Opacity \leq 20% (Minn. R. 7011.0110)	While no emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate visible emissions.

Insignificant Activity	Currently on site? (Y/N)	General Applicable Emission limit	Discussion
Cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated	Y	PM, variable depending on airflow Opacity \leq 20% (Minn. R. 7011.0610, Minn.	For these units, there are some factors available for the burners, but very little information regarding the cleaning operation itself. However, based on general knowledge of how they operate, it is highly unlikely that they could

Insignificant Activity	Currently on site? (Y/N)	General Applicable Emission limit	Discussion
burners		R. 7011.0715)	violate the applicable requirement or that testing would be feasible.
Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities	N	PM, variable depending on airflow or process weight rate Opacity \leq 20% (Minn. R. 7011.0715)	While spray equipment will have the potential to emit particulate matter, these particular activities are those not associated with production, so they would be infrequent and usually occur outdoors. Testing or monitoring is not feasible.

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 05300138-003

This technical support document (TSD) is intended for all parties interested in the proposed permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the proposed permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 3499)
Safety/Environmental Affairs Manager 5005 County Road 25 St. Louis Park, MN 55416	5005 County Road 25 St. Louis Park Hennepin County
Contact: Bette Danielson Phone: 952-924-9645	

1.2. Facility Description

Northland Aluminum Products manufactures metal and plastic cookware/bakeware and conducts some custom parts surface coating. Air emission sources at the facility include plastics compression molding, metal surface preparation (sandblasting and thermal spraying), coating, and combustion. Coating operations includes spray application of liquid and powder coatings. The sites combustion equipment includes boilers and curing ovens fueled by natural gas with propane back up. The facility's thermal spraying and sandblasting operations are controlled by baghouses. All of the facility's coating lines have panel filters for particulate control

1.3 Description of the Activities Allowed by this Permit Action

This amendment is for the replacement of EU 020, the American Standard Boiler, with EU 034, the Pennant Boiler. The new boiler will use the stack from the old boiler (SV 020). EU 021, the Kewanee Steam Boiler, was removed from the facility and the permit. Given the PTE of the new boiler and the PTE of the units being removed, the PTE for the facility will be decreasing for all pollutants. GP 001 containing IPER requirements was removed and the requirements were added to GP 004. Emission units, control equipment, and stack vents were added to the facility description and the PTE data was also updated. Several requirements and citations were updated to follow current policies.

NAAQS Modeling: Initial screening in 2003 of the Northland Aluminum Products facility predicted concentrations above the NAAQS 24-Hour PM₁₀ standard. More refined screening of PTE using the modeling information submitted by Northland Aluminum Products and the screening model DISPERSE was conducted in December of 2007. The results of the DISPERSE screening show that Northland Aluminum Products has predicted concentrations above the NAAQS 24-Hour PM₁₀ standard. The 24-hour PM₁₀ NAAQS standard is 150 µg/m³, refined screening shows Northland Aluminum Products 24-hour

PM₁₀ of 1925 µg/m³. Requirements for the facility to perform more refined modeling were added to the permit. See Attachment 3 to this TSD for detailed modeling tables.

Initial screening also showed predicted concentrations above the Lead standard; however, the facility no longer uses lead coatings as indicated by Attachment 4 to this TSD.

1.4. **Facility Emissions:**

Table 3. Total Facility Potential to Emit Summary

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	100.8	100.8	0.50	14.67	7.64	200.65	29.66	205
Total Facility Actual Emissions (2005)	13.98	13.98	0.02	3.13	2.63	53.08	HAPs not reported in emission inventory	

Table 4. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		X	
Part 70 Permit Program	X		
Part 63 NESHAP	X		

2. **Regulatory and/or Statutory Basis**

New Source Review

The facility has taken emission limits and is an existing synthetic minor source under New Source Review regulations. No changes are authorized by this permit.

Part 70 Permit Program

The facility is a major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

This facility is a major source of HAPs and is subject to the requirements of NESHAPs MMMM, PPPP, and WWWW.

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment

Table 5. Regulatory Overview of Units Affected by the Modification/Permit Amendment

EU, GP, or SV	Applicable Regulations	Comments:
FC	Minn. Stat. § 116.07, subds. 4a & 9; Minn. R. 7009.0020; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2	Requires a modeling protocol and modeling study results be submitted to the MPCA. This is a state only requirement.
GP 002	40 CFR § 63.52(b)(1)	The facility must submit a 112(j) determination within 30 days of startup of EU034 to the MPCA.
GP 004	Title I Condition: To avoid major source classification under 40 CFR § 52.21 and Minn. R. 7007.3000	Requires the use of panel filters (GP 005) when operating any units in GP 004 in order to maintain PM & PM10 limits.
GP 004	Minn. R. 7005.0100, subp. 35a	Limits the VOC and Solids content of coatings to those reported in the application.
GP 005	Title I Condition: To avoid classification as a major source and modification under 40 CFR § 52.21 and Minn. R. 7007.3000	Establishes an overall control efficiency for the panel filters based on the control equipment rule. Changed from 74% to 68% because of the newly update control equipment rule.
GP 006	40 CFR § 63, subp. MMMM	"Surface Coating of Miscellaneous Metal Parts and Products" category standard.
GP 007	40 CFR § 63, subp. PPPP	"Surface Coating of Plastic Parts and Products" category standard.

The language 'This is a state-only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act' refers to permit requirements that are mandated by state law rather than by the federal Clean Air Act. The language is to clarify the distinction between permit conditions that are required by federal law and those that are required by state law. State law requirements are not enforceable by EPA or by citizens under the federal Clean Air Act, but are fully enforceable by the MPCA and citizens under provisions of state law.

3. Technical Information

3.1 Calculations of Potential to Emit

Attachment 1 to this TSD contains a PTE summary of the Facility, and detailed spreadsheets and supporting information prepared by the MPCA and the Permittee.

3.2 Periodic Monitoring

No monitoring requirements were added.

3.3 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements.

3.4 Comments Received

Public Notice Period: January 26, 2008 – February 25, 2008

EPA 45-day Review Period: January 25, 2008 – March 10, 2008

Comments were not received from the public during the public notice period.

4. Conclusion

Based on the information provided by Northland Aluminum Products, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05300138-003, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:	Chris Buntjer (permit writer/engineer)
	Suzanne Venem (enforcement)
	Curt Stock (stack testing)
	Ruth Roberson (air modeling)
	Kelsey Suddard (peer reviewer)

AQ File No. 2457; DQ 1740

Attachments:	1. PTE Summary and Calculation Spreadsheets
	2. CD-01 Forms
	3. NAAQS Screening Memo
	4. No Lead Coatings Letter