

**AIR EMISSION PERMIT NO. 05300113- 002**  
**(Part 70 Reissuance)**

**IS ISSUED TO**

**Nico Products Inc.**  
2929 First Avenue South  
Minneapolis, Hennepin County, MN 55408

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	Application Date
Total Facility Operating Permit - Reissuance	01/19/2005
Supplemental Submittal #1	07/17/2006
Supplemental Submittal #2	07/19/2006

This permit authorizes the Permittee to operate 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; Part 70/True Minor for NSR

**Issue Date:** October 10, 2006

**Expiration:** October 10, 2011  
All Title I Conditions do not expire.

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Richard J. Sandberg, Manager  
Air Quality Permits Section  
Industrial Division

for Brad Moore  
Acting Commissioner  
Minnesota Pollution Control Agency

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## **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. 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:**

Nico Products, Inc. is a job shop metal finishing facility (SIC code 3471) with 13 separate metal plating and finishing lines consisting of both large-capacity automated lines, hoist lines and hand operated lines. Nico processes steel, stainless steel, zinc die cast, brass, copper, and aluminum/aluminum die cast parts. Plating is applied to the base metals for a variety of reasons including appearance, wear, corrosion resistance, electrical resistance and overall protection of the part. The Facility also operates a solvent vapor degreasing unit and two boilers.

Metal finishing and plating is accomplished through both electrical and non-electrical processes. Parts are typically degreased, using either the vapor degreaser or liquid alkaline cleaners, acid etched to remove any metal oxides from the parts surface and then moved through the plating of the specific finish metal(s). A final protective or decorative emersion coating is typically applied following the plating. The metals that Nico uses for plating are zinc, nickel, trivalent-chromium, copper, cadmium, brass, and tin. Non-plated finishes include chromates (clear, yellow, olive drab and black), passivation and iridite. These finishes are used on a variety of parts for numerous industries which include tool/hardware, electronics, aerospace/aircraft, industrial, military, medical and decorative art fixtures.

The Facility currently has four high-capacity air scrubbing units for pollution control; however, the pollution control equipment is not needed in order to meet applicable requirements or to limit the potential to emit and does not appear in the permit.

The Facility also has several operations that qualify as insignificant activities under the Minnesota Rules. See Appendix I for the Insignificant Activities required to be listed.

The Facility is a true minor source for New Source Review (40 CFR § 52.21); however, it is a major source for the National Emissions Standards for Hazardous Air Pollutants (NESHAPs, 40 CFR pt. 63) and is therefore a major source under the federal operation permits program (40 CFR pt. 70).

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-1

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**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**

<b>What to do</b>	<b>Why to do it</b>
<b>SOURCE-SPECIFIC REQUIREMENTS</b>	hdr
General provisions of Part 63 applicable to Subpart N are provided in Table 1 to Subpart N of Part 63 and those applicable to Subpart T are provided in Appendix B to Subpart T of Part 63.	40 CFR Part 63
<b>OPERATIONAL REQUIREMENTS</b>	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, subp. 14 and Minn. R. 7007.0800, subp. 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
<b>PERFORMANCE TESTING</b>	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
Performance Test Notifications and Submittals:  Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.  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  The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. Rs. 7017.2030, subp. 1-4, 7017.2018 and Minn. R. 7017.2035, subp. 1-2

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit and completion of permit reopening and reissuance. If limits serve to cause more stringent operating conditions, resulting changes to facility operation need to be made immediately. If limits serve to relax current operating conditions, resulting changes to facility operation must not be made prior to issuance of permit amendment with new limit incorporated.	Minn. R. 7017.2025
<b>MONITORING REQUIREMENTS</b>	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
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.	Minn. R. 7007.0800, subp. 4(D)
<b>RECORDKEEPING</b>	hdr
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).	Minn. R. 7007.0800, subp. 5(C)
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.	Minn. R. 7007.0800, subp. 5(B)
<b>REPORTING/SUBMITTALS</b>	hdr
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.  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.	Minn. R. 7019.1000, subp. 3
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.  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.	Minn. R. 7019.1000, subp. 2
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.	Minn. R. 7019.1000, subp. 1
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: 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

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

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.	Minn. R. 7007.1150 through Minn. R. 7007.1500
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).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item: GP 001 Stack Vent 002**

**Associated Items:**

- EU 002 Zinc #1 Auto HCl Acid
- EU 003 Zinc #1 Auto HCl Acid
- EU 004 Zinc #2 Auto HCl Acid
- EU 005 Zinc #2 Auto HCl Acid
- EU 006 Zinc #2 Alkaline Zinc Plate
- EU 007 Zinc #2 Alkaline Zinc Regen
- EU 008 Nickel #1 PICTAX
- EU 009 Nickel #1 HCl Acid
- EU 012 Nickel #1 Trivalent Chrome Plate
- EU 013 Nickel #2 HCl Acid
- EU 014 Nickel #2 HCl Acid
- EU 015 Nickel #2 Trivalent Chrome Plate
- EU 129 Zinc 1 Auto Alkaline Zinc Regen
- EU 147 Zinc 1 Auto Alkaline Zinc Plate
- SV 002 Zone 1 Vent/Scrubber

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 separately to each unit in GP 001.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 001.	Minn. R. 7011.0715, subp. 1(B)



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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item: GP 002 Stack Vent 003**

**Associated Items:**

- EU 016 Cadmium HCl Acid
- EU 019 Nickel #3A HCl Acid
- EU 020 Nickel #3A Trivalent Chrome Plate
- EU 021 Nickel #3B HCl Acid
- EU 022 Zinc Handline HCl Acid
- EU 023 Zinc Handline HCl Acid
- EU 024 Zinc Handline Alkaline Zinc Plate
- EU 025 Zinc Handline Black Chromate
- EU 026 Tin Handline HCl Acid (Steel)
- EU 027 Tin Handline HCl Acid (Copper)
- EU 028 Tin Handline Strip
- EU 029 Passivate Permanganate
- EU 030 Passivate Dichromate - Type II
- EU 031 Passivate Caustic
- EU 032 Miscellaneous Handline Zinc Regen
- EU 036 Aluminum Handline 50% Nitric Acid
- EU 037 Aluminum Handline Combination Acid
- EU 038 Strips HCl Acid
- EU 123 Cad Line Alkaline Zinc Regen
- EU 124 Cad Line Alkaline Zinc Plate
- EU 134 Cadmium Actance 340
- EU 135 Nickel 3A Pictax
- EU 136 Nickel Hoist Line Pictax
- EU 137 Nickel Hoist Line HCl Acid
- EU 138 Nickel Hoist Line Nitric Acid Passivate
- SV 003 Zone 2 Vent/Scrubber

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 separately to each unit in GP 002.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 002.	Minn. R. 7011.0715, subp. 1(B)

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item: GP 003 Stack Vent 004****Associated Items:** EU 051 Zinc #4 Carrier Strip HCl Acid

EU 053 Zinc #4 HCl Acid

EU 054 Zinc #4 HCl Acid

EU 055 Zinc #4 Alkaline Zinc Regen

EU 056 Zinc #4 Regen HCl Acid

EU 057 Zinc #4 Alkaline Zinc Plate

EU 058 Zinc #4 Alkaline Zinc Plate

EU 059 Zinc #4 Alkaline Zinc Plate

EU 060 Zinc #4 Clear Chromate

EU 061 Zinc #4 Yellow Chromate

EU 139 Zinc 4 Stripper

EU 140 Zinc 4 Black Chromate

EU 151 Tin Automatic HCl Acid

EU 152 Tin Auto Acid Tin Plate

SV 004 Zone 3 Vent/Scrubber

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 separately to each unit in GP 003.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 003.	Minn. R. 7011.0715, subp. 1(B)

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item: GP 004 Stack Vent 005****Associated Items:** EU 043 Zinc #3 Auto HCl Acid

EU 044 Zinc #3 Auto Alkaline Zinc Plate

EU 045 Zinc #3 Auto Alkaline Zinc Plate

EU 046 Zinc #3 Auto Alkaline Zinc Plate

EU 049 Nickel Rack Strip

EU 050 Tin #4 Rack Strip

SV 005 Zone 5 Vent/Scrubber

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 separately to each unit in GP 004.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 004.	Minn. R. 7011.0715, subp. 1(B)

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-8**

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item: GP 005 Stack Vent 006****Associated Items:** EU 107 4000 gallon New HCl Acid Storage Tank

EU 108 4000 gallon Used HCl Acid Storage Tank

EU 109 3000 gallon Chromate Storage Tank

SV 006 Chemical Storage Area Vent

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 separately to each unit in GP 005.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 005.	Minn. R. 7011.0715, subp. 1(B)

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item: GP 006 Stack Vent 007**

**Associated Items:**

- EU 063 Cadmium Udyprep 340
- EU 064 Cadmium Cadmium Cyanide Barrel Plate
- EU 066 Cadmium Yellow Chromate
- EU 067 Cadmium Clear Chromate
- EU 070 Zinc Handline Clear Chromate
- EU 071 Zinc Handline Yellow Chromate
- EU 072 Tin Handline Irridite
- EU 073 Tin Handline Acid Tin #2 Plate
- EU 074 Tin Handline Acid Tin #1 Plate
- EU 075 Passivate 50% Nitric Acid
- EU 076 Passivate Oakite 31
- EU 078 Miscellaneous Handline HCl Acid
- EU 079 Miscellaneous Handline Cyanide Copper #4
- EU 080 Miscellaneous Handline Zinc Chloride Plate
- EU 083 Aluminum Handline Nickel Chloride Strike
- EU 084 Aluminum Handline Zincate
- EU 091 Zinc Handline Olive Drab
- EU 092 Tin #4 Cyanide Copper #6
- EU 093 Tin #4 Acid Tin #4 Plate
- EU 117 Auto Nickel Plate
- EU 121 Nickel Hoist Line Carrier Strip
- EU 125 Nickel 3A Copper Cyanide Strike
- EU 126 Nickel 3A Nickel Plate - Semi-Bright
- EU 127 Nickel 3A Nickel Plate - Bright
- EU 133 Misc Handline Chromic Bright Dip
- EU 141 Nickel 3A Cyanide Copper Plate
- EU 142 Nickel 3A Nickel Plate - Sulfamate
- EU 143 Zinc Phosphat Handline Zinc Plate
- EU 144 Zinc Phosphat Handline Black
- EU 145 Strips HCl Acid
- EU 146 Ultraseal
- SV 007 North Hand Line Area Vent

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 separately to each unit in GP 006.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 006.	Minn. R. 7011.0715, subp. 1(B)

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item: GP 007 Stack Vent 008****Associated Items:** EU 010 Nickel #1 Cyanide Copper Strike

EU 011 Nickel #1 Cyanide Copper Plate

EU 094 Nickel #1 Cyanide Brass Plate

EU 095 Nickel #1 Nickel Strike

EU 096 Nickel #1 Nickel Plate

EU 097 Nickel #2 Cyanide Copper Strike

EU 098 Nickel #2 Copper Sulfate Plate

EU 099 Nickel #2 Nickel Plate

SV 008 South Hand Line Area Vent

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 separately to each unit in GP 007.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 007.	Minn. R. 7011.0715, subp. 1(B)

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item:** GP 008 Stack Vent 009 and 010**Associated Items:** EU 101 Zinc #1 Auto Black Chromate

EU 103 Zinc #2 Auto Clear Chromate

EU 128 Zinc 1 Auto Black Chromate

EU 130 Zinc 1 Auto Regen Acid

EU 131 Zinc 2 Auto Regen Acid

EU 132 Zinc 2 Auto Yellow Chromate

EU 148 Zinc 1 Auto Yellow Chromate

SV 009 Zinc #1 Auto Area Vent

SV 010 Zinc #2 Auto Area Vent

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 separately to each unit in GP 008.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 008.	Minn. R. 7011.0715, subp. 1(B)

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item:** GP 009 Stack Vent 011

**Associated Items:** EU 039 Strips Chromic Acid  
EU 048 Zinc #3 Auto Regen HCl  
EU 085 Rack Strip #3  
EU 110 3000 gallon Cyanide Dragout Storage Tank  
EU 111 3000 gallon Extra Holding Storage Tank  
EU 122 Zinc 3 Auto Yellow Chromate  
EU 149 Zinc 3 Auto Stripper  
EU 150 Zinc 3 Auto Clear Chromate  
SV 011 Zinc #3 Auto Area Vent

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 separately to each unit in GP 009.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each unit in GP 009.	Minn. R. 7011.0715, subp. 1(B)



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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item: EU 001 Degreaser - Halogenated Solvent Cleaner****Associated Items: SV 001 Degreaser Vent**

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.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
DESIGN REQUIREMENTS	hdr
Reduced Room Drafts. Ensure that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine does not exceed 50 feet per minute at any time.	40 CFR Section 63.463(a)(1)(ii); Minn. R. 7011.7200
The vapor degreaser shall have freeboard ratio of 0.75 or greater.	40 CFR Section 63.463(a)(2); Minn. R. 7011.7200
The vapor degreaser shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 11 feet per minute or less from the initial loading of the parts through removal of cleaned parts.	40 CFR Section 63.463(a)(3); Minn. R. 7011.7200
The vapor degreaser shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.	40 CFR Section 63.463(a)(5); Minn. R. 7011.7200
The vapor degreaser shall have a primary condenser.	40 CFR Section 63.463(a)(6); Minn. R. 7011.7200
The permittee shall use Option number 4 from 40 CFR Section 63.463(b)(1)(i) Table 1, reduced room draft, freeboard ratio of 1.0 and superheated vapor as the control combination option.	40 CFR Section 63.463(b)(1)(i); Minn. R. 7011.7200
WORK PRACTICE STANDARDS	hdr
Control Air disturbances across the cleaning machine opening(s) by incorporating the control equipment or techniques  (i) cover(s) to each solvent cleaning machine shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover(s) to not be in place; (ii) a reduced room draft as described in 63.463(e)(2)(ii)	40 CFR Section 63.463(d)(1); Minn. R. 7011.7200
The parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine shall not occupy more than 50% of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3ft/min) or less.	40 CFR Section 63.463(d)(2); Minn. R. 7011.7200
Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine).	40 CFR Section 63.463(d)(3); Minn. R. 7011.7200
Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved.	40 CFR Section 63.463(d)(4); Minn. R. 7011.7200
Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.	40 CFR Section 63.463(d)(5); Minn. R. 7011.7200
During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.	40 CFR Section 63.463(d)(6); Minn. R. 7011.7200
During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.	40 CFR Section 63.463(d)(7); Minn. R. 7011.7200
When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.	40 CFR Section 63.463(d)(8); Minn. R. 7011.7200
Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the MPCA's satisfaction to achieve the same or better results as those recommended by the manufacturer.	40 CFR Section 63.463(d)(9); Minn. R. 7011.7200
Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures, if requested during an inspection.	40 CFR Section 63.463(d)(10); Minn. R. 7011.7200
Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. the closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.	40 CFR Section 63.463(d)(11); Minn. R. 7011.7200
Sponges, fabric, wood, and paper products shall not be cleaned in the degreaser.	40 CFR Section 63.463(d)(12); Minn. R. 7011.7200

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

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

COMPLIANCE REQUIREMENTS	hdr
<p>If a reduced room draft is used to comply with these standards, the Permittee shall comply with the two following requirements:</p> <ul style="list-style-type: none"> <li>- ensure that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 ft/min) at any time as measured using the procedures in 40 CFR Section 63.466(d); and</li> <li>- establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 ft/min) or less as described in 40 CFR Section 63.466(d).</li> </ul>	40 CFR Section 63.463(e)(2)(ii); Minn. R. 7011.7200
<p>If a superheated vapor system is used to comply with these standards, the Permittee shall comply with the following three requirements:</p> <ul style="list-style-type: none"> <li>- ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10 degrees F above the solvent's boiling point;</li> <li>- ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed; and</li> <li>- ensure that parts remain within the superheated vapor for at least the minimum proper dwell time.</li> </ul>	40 CFR Section 63.463(e)(2)(vi); Minn. R. 7011.7200
ALTERNATIVE STANDARDS	hdr
As an alternative to meeting the requirements of 40 Section CFR 63.463, the Permittee may elect to comply with the emission limit requirements of 40 CFR Section 63.464 and test methods in 40 CFR Section 63.465.	40 CFR Section 63.464; Minn. R. 7011.7200
MONITORING PROCEDURES	hdr
Superheated Vapor System: use a thermometer or thermocouple weekly to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machines is in the idling mode.	40 CFR Section 63.466(a)(2); Minn. R. 7011.7200
<p>Reduced Room Draft: Using an enclosure (full or partial), conduct an initial monitoring test.</p> <ul style="list-style-type: none"> <li>- Conduct monthly monitoring tests of the windspeed within the enclosure by determining the direction of the wind current by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located and record the maximum speed</li> <li>- Conduct monthly visual inspections of the enclosure to determine if it is free of cracks, holes and other defects.</li> </ul>	40 CFR Section 63.466(d)(2); Minn. R. 7011.7200
RECORDKEEPING REQUIREMENTS	hdr
The Permittee shall maintain the following records in written or electronic form for the lifetime of the machine: (1) owners manuals or written maintenance and operating procedures, (2) the date of installation for the solvent cleaning machine and all of its control devices, (3) records of the halogenated HAP solvent content for each solvent used in a solvent cleaning machine subject to the provisions of this subpart.	40 CFR Section 63.467(a)(1), (2), and (5); Minn. R. 7011.7200
<p>The Permittee shall maintain the following records in written or electronic form for a period of five years:</p> <p>(1) The results of control device monitoring required under 40 CFR Section 63.466.</p> <p>(2) Information on the actions taken to comply with 40 CFR Section 63.463(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.</p> <p>(3) Estimates of annual solvent consumption for each solvent cleaning machine.</p>	40 CFR Section 63.467(b)(1)-(3); Minn. R. 7011.7200
REPORTING	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-15**

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item:** EU 012 Nickel #1 Trivalent Chrome Plate**Associated Items:** GP 001 Stack Vent 002

SV 002 Zone 1 Vent/Scrubber

What to do	Why to do it
A decorative chromium electroplating tank that uses a trivalent chromium bath that incorporates a wetting agent as a bath ingredient is subject to the recordkeeping requirements of Section 63.346(b)(14). The wetting agent must be an ingredient in the trivalent chromium bath components purchased from vendors.	40 CFR Section 63.342(e); Minn. R. 7011.7120
Records shall be maintained on-site of the bath components purchased, with the wetting agent clearly identified as a bath constituent contained in one of the components.	40 CFR Section 63.346(b)(14); Minn. R. 7011.7120

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-16**

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item:** EU 015 Nickel #2 Trivalent Chrome Plate**Associated Items:** GP 001 Stack Vent 002

SV 002 Zone 1 Vent/Scrubber

What to do	Why to do it
A decorative chromium electroplating tank that uses a trivalent chromium bath that incorporates a wetting agent as a bath ingredient is subject to the recordkeeping requirements of Section 63.346(b)(14). The wetting agent must be an ingredient in the trivalent chromium bath components purchased from vendors.	40 CFR Section 63.342(e); Minn. R. 7011.7120
Records shall be maintained on-site of the bath components purchased, with the wetting agent clearly identified as a bath constituent contained in one of the components.	40 CFR Section 63.346(b)(14); Minn. R. 7011.7120

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-17**

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item:** EU 020 Nickel #3A Trivalent Chrome Plate**Associated Items:** GP 002 Stack Vent 003

SV 003 Zone 2 Vent/Scrubber

What to do	Why to do it
A decorative chromium electroplating tank that uses a trivalent chromium bath that incorporates a wetting agent as a bath ingredient is subject to the recordkeeping requirements of Section 63.346(b)(14). The wetting agent must be an ingredient in the trivalent chromium bath components purchased from vendors.	40 CFR Section 63.342(e); Minn. R. 7011.7120
Records shall be maintained on-site of the bath components purchased, with the wetting agent clearly identified as a bath constituent contained in one of the components.	40 CFR Section 63.346(b)(14); Minn. R. 7011.7120

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-18**

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item:** EU 112 Boiler #1**Associated Items:** SV 012 Boiler

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Total Particulate Matter: less than or equal to 0.40 lbs/million Btu heat input . The potential to emit based on allowable fuels is 0.0072 lb/MMBtu.	Minn. R. 7011.0515, subp. 1
Fuel Type: only natural gas or propane, by design.	Minn. R. 7005.0100, subp. 35a
Fuel Recordkeeping: The Permittee shall keep records of fuel purchases.	Minn. R. 7007.0800, subp. 4 and 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS****A-19**

10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

**Subject Item:** EU 113 Boiler #2**Associated Items:** SV 013 Boiler

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Total Particulate Matter: less than or equal to 0.40 lbs/million Btu heat input . The potential to emit based on allowable fuels is 0.0072 lb/MMBtu.	Minn. R. 7011.0515, subp. 1
Fuel Type: only natural gas or propane, by design.	Minn. R. 7005.0100, subp. 35a
Fuel Recordkeeping: The Permittee shall keep records of fuel purchases.	Minn. R. 7007.0800, subp. 4 and 5

## TABLE B: SUBMITTALS

B-1 10/10/06

Facility Name: Nico Products Inc  
Permit Number: 05300113 - 002

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.

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 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

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.

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

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

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



TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Nico Products Inc  
Permit Number: 05300113 - 002

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility

**TABLE B: RECURRENT SUBMITTALS****B-3** 10/10/06

Facility Name: Nico Products Inc

Permit Number: 05300113 - 002

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
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 08/04/1998. The Permittee shall submit an exceedance report to the Administrator semiannually except when the Administrator determines that more frequent reporting is necessary to accurately assess the compliance status or, once an exceedance occurs. Once an exceedance has occurred the Permittee shall follow a quarterly reporting format until a request to reduce reporting frequency is approved. Exceedance reports shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. The report shall include the applicable information in 40 CFR Section 63.468(h)(1) to (3).	EU001
Annual Report	due 32 days after end of each calendar year starting 08/04/1998. The Permittee shall submit an annual report by February 1 of each year following the one for which the report is being made. This report shall include the following: (1) a signed statement from the stating that, "all operators of solvent cleaning machines have recieved training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test in 40 CFR Section 63.463(d)(10).", (2) an estimate of the solvent consumption for each solvent cleaning machine during the reporting period.	EU001
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted 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 I: Insignificant Activities and Applicable Requirements****Facility Name:** Nico Products Inc**Permit Number:** 05300113-002

<b>Minn. R.</b>	<b>Rule Description of the Activity</b>	<b>Applicable Requirement</b>
7007.1300, subp. 3(G)	Emissions from a laboratory, as defined in the subpart. <i>The Facility operates a laboratory on-site.</i>	Minn. R. 7011.0715 (PM and opacity)
7007.1300, subp. 3(H)	Miscellaneous:	
	3. brazing, soldering or welding equipment; <i>The Facility operates welding equipment as part of maintenance activities.</i>	Minn. R. 7011.0715 (PM and opacity)
	7. cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated burners. <i>The Facility operates alkaline/phosphate cleaners and associated burners.</i>	Minn. R. 7011.0715 (PM and opacity)
7008.4110	Emissions from equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM <sub>10</sub> ) inside a building, provided that emissions from the equipment are:  a). filtered through an air cleaning system; and b). vented inside of the building 100% of the time. <i>The Facility has sand blasting equipment.</i>	Minn. R. 7011.0715 (PM and opacity)

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 05300113-002**  
**Part 70 Reissuance**

This technical support document is intended for all parties interested in the 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 permit.

**1. General Information**

**1.1. Applicant and Stationary Source Location**

Stationary Source/Address (SIC Code: 3471)
<b>Nico Products Inc.</b> 2929 First Ave South Minneapolis, MN 55408 Hennepin County
Contact: Dennis Manley Phone: (612) 822-2185

**1.2. Description of the Facility**

Nico Products, Inc., (Nico) is a job shop metal finishing facility (SIC code 3471) with 13 separate metal plating and finishing lines consisting of both large-capacity automated lines, hoist lines and hand operated lines. Nico processes steel, stainless steel, zinc die cast, brass, copper, and aluminum/aluminum die cast parts. Plating is applied to the base metals for a variety of reasons including appearance, wear, corrosion resistance, electrical resistance and overall protection of the part. The Facility operates a solvent vapor degreasing unit and two boilers.

Metal finishing and plating is accomplished through both electrical and non-electrical processes. Parts are typically degreased, using either the vapor degreaser or liquid alkaline cleaners, acid etched to remove any metal oxides from the parts surface and then moved through the plating of the specific finish metal(s). A final protective or decorative emersion coating is typically applied following the plating. The metals that Nico uses for plating are zinc, nickel, trivalent-chromium, copper, cadmium, brass, and tin. Nonplated finishes include chromates (clear, yellow, olive drab and black), passivation and iridite. These finishes are used on a variety of parts for numerous industries which include tool/hardware, electronics, aerospace/aircraft, industrial, military, medical and decorative art fixtures.

The Facility currently has four high-capacity air scrubbing units for pollution control; however, the pollution control equipment is not needed in order to meet applicable requirements or to limit the potential to emit and does not appear in the permit.

The Facility also has several operations that qualify as insignificant activities under the Minnesota Rules. See Section 3.4 for more discussion of these units.

**1.3 Description of any Changes Allowed with this Permit Issuance**

The permit authorizes the use of propane as a backup fuel in the two boilers.

#### 1.4 Description of All Amendments Issued Since the Issuance of the Original Part 70 Permit

No amendments have been issued to the Part 70 permit. The Facility made many changes since the permit was issued, but has stated that all of them qualified as insignificant modifications.

#### 1.5. Facility Emissions

**Table 1. Total Facility Potential to Emit Summary**

Note: See Section 3.1 of this TSD for more discussion of potential emissions

	PM/ PM <sub>10</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	12.1	0.26	9.34	3.23	108	108	115
Total Facility 2004 Actual Emissions	5.4	0.09	2.32	1.1	16.8	NR	NR

**Table 2. Facility Classification**

Classification	Major/Affected Source	Synthetic Minor*	Minor*
PSD			X
Part 70 Permit Program	X (HAP, VOC and PM <sub>10</sub> )		
Part 63 NESHAP	X		

\* Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 70, and 40 CFR pt. 63.

#### 1.6 Changes to Permit

No significant changes have been made to the requirements in the permit. The following types of changes have been made:

- updated to reflect current MPCA templates and standard citation formatting;
- completed requirements and the requirements for equipment that has been removed have been deleted (e.g., EUs 114 and 115);
- separate annual fuel usage report has been deleted for EUs 112 and 113 (report this in the annual EI);
- propane has been added as a fuel option for the remaining boilers (EUs 112 and 113);
- scrubbers have been removed from the permit;
- an Appendix has been added per MPCA policy that lists all of the Insignificant Activities required to be listed in the permit application along with their applicable requirements; and
- some requirements have been reordered to help with clarity (i.e., similar requirements are grouped).

## 2. Regulatory and/or Statutory Basis

### New Source Review

The Facility is an existing minor source for New Source Review.

### Part 70 Permit Program

The Facility is a major source under the Part 70 permit program due to the potential HAP emissions.

### 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)

Certain emissions units at the Facility are subject to the following NESHAPs:

- 40 CFR pt. 63, subp. T, National Emissions Standards for Chromium Emissions from Hard and Decorative Electroplating and Chromium Anodizing Tanks (Chrome Plating NESHAP)
- 40 CFR pt. 63, subp. N, National Emissions Standards for Halogenated Solvent Cleaning (Degreaser NESHAP)

### Minnesota State Rules

Portions of the Facility are subject to the following Minnesota Standards of Performance (other than those that incorporate the above NESHAPs by reference):

- Minn. R. 7011.0715 Standards of Performance for New Industrial Process Equipment
- Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment

**Table 3. Regulatory Overview of Facility**

EU, GP, or SV	Applicable Regulations	Comments:
EU 001	40 CFR pt. 63, subp. T  Minn. R. 7011.0715	Degreaser NESHAP. The permit includes option 4 for batch vapor degreasers.  Standards of Performance for New Industrial Equipment. Unit is post July 9, 1969, and is therefore subject to these requirements. Per MPCA guidance, this rule applies in addition to the NESHAP.
EUs 012, 015, 020	40 CFR pt. 63, subp. N	Chrome Plating NESHAP. The permit includes the requirements for trivalent chromium baths that use wetting agents as a bath ingredient.
EUs 112 and 113	Minn. R. 7011.0515	Standards of Performance for New Indirect Heating Equipment. Includes PM and opacity limits only. Determination of applicable limits from rule: <ul style="list-style-type: none"><li>• the units were constructed in 1996 and 2000;</li><li>• the facility is located within Mpls;</li><li>• the unit capacities are less than 250 MMBtu/hr; and</li><li>• the Facility has less than 250 MMBtu/hr of indirect heating equipment.</li></ul>
GPs 001-009	Minn. R. 7011.0715	Standards of Performance for New Industrial Equipment. All units are post July 9, 1969, and are therefore subject to these requirements.

## **3. Technical Information**

### **3.1 Calculations of Potential to Emit**

Attachment 1 to this TSD contains both a summary of the PTE of the Facility as well as detailed spreadsheets and supporting information prepared by the MPCA and the Permittee. The basic calculation methods are the same as in the original Part 70 permit application with updates for new equipment and emissions factors.

The calculations for plating operations were done by the Permittee, using the procedures described for plating activities at [www.pca.state.mn.us/industry/sbeg/platinst.pdf](http://www.pca.state.mn.us/industry/sbeg/platinst.pdf). Degreaser calculations were done by the Permittee using the equations prescribed at 40 CFR § 63.465(e).

The spreadsheet submitted by the Permittee includes actual emissions calculations that were not reviewed or corrected by MPCA staff. The calculations reflect the use of the scrubbers, which are not required by the permit; therefore, credit is not given for the emissions inventory.

The potential emissions from EU 112 and 113 (boilers) have increased slightly because they are now allowed to use propane as well as natural gas. The potential emissions from a couple of the process units (and therefore the total facility) have increased since the original permit was issued. This is because of updated or better emissions calculation methods, not due to any changes to the equipment. For example, the potential to emit from the degreaser was originally based on scaled-up actual usage. However, the NESHAP standard specifies a PTE calculation method that should be used for regulated degreasers, and this yields a much higher number (roughly 3 times higher).

### **3.2 Compliance Assurance Monitoring (CAM)**

The degreaser has control equipment that is used to meet the NESHAP standards, and the potential emissions from the unit are greater than the major source level (i.e., 10 tpy of individual HAP); however, CAM does not apply to NESHAPs promulgated after November 15, 1990, so CAM does not apply to the degreaser for the NESHAP.

For the units that are controlled by the scrubbers, the pollution control equipment is not used to comply with a limit; therefore, the units are not subject to CAM.

### **3.3 Periodic Monitoring**

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate. Per EPA guidance (and rules), all standards promulgated after November 1990 are presumed to have adequate monitoring to meet the periodic monitoring (and CAM) requirements for those standards. For this Facility, the two NESHAP standards are deemed to have adequate monitoring – they are still listed in Table 4 in order to have a complete list of all requirements and monitoring.

**Table 4. Periodic Monitoring**

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
EU 001	HAP limits and requirements (40 CFR pt. 63, subp. T)  PM: varies with airflow and Opacity: $\leq 20\%$ (Minn. R. 7011.0715)	None  None	Monitoring from the NESHAP is assumed to be adequate.  The degreaser is not reasonably expected to generate particulate matter. No monitoring is necessary.
EU 012, 015, and 020	HAP limits and requirements (40 CFR pt. 63, subp. N)	None	Monitoring from the NESHAP is assumed to be adequate.
EU 112, 113	PM $< 0.4$ lb/MMBtu  Opacity: $\leq 20\%$ , with exceptions (Minn. R. 7011.0515)	Fuel purchase records	Both units use natural gas and propane; therefore, the likelihood of violating either of the emission limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning natural gas. Design based PM PTE for each unit, using AP-42, is 0.0072 compared to the rule limit of 0.4 lb/MMBtu.
GPs 001-009	PM: varies with airflow and Opacity: $\leq 20\%$ (Minn. R. 7011.0715)	None	The uncontrolled potential to emit from these units is less than 5% of the allowable rate. No monitoring is necessary.

### 3.4 Insignificant Activities

Nico has several operations which are classified as insignificant activities. These are listed in Appendix I to the permit. The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities. See Attachment 1 of this TSD for PTE information for the insignificant activities.

**Table 5. Insignificant Activities**

<b>Insignificant Activity</b>	<b>General Applicable Emission limit</b>	<b>Discussion</b>
Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(G)	PM, variable depending on airflow Opacity $\leq 20\%$ (Minn. R. 7011.0715)	These are very small, intermittent, bench-top operations that typically do not even have any emissions. It is highly unlikely that they could violate the applicable requirement.



<b>Insignificant Activity</b>	<b>General Applicable Emission limit</b>	<b>Discussion</b>
Brazing, soldering or welding equipment	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 typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated burners	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0610+ Minn. R. 7011.0715)	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 violate the applicable requirement or that testing would be feasible.
Equipment venting PM/PM <sub>10</sub> inside a building, provided that emissions from the equipment are: a). filtered through an air cleaning system; and b). vented inside of the building 100% of the time	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0715)	For this sand blasting unit, it is highly unlikely that it could violate the applicable requirement. In addition, the unit is vented inside a building, so testing for PM or opacity is not feasible.

### **3.5 Permit Organization**

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. The only deviation from Delta guidance is in the use of groups for general requirements. GPs 001-009 contain requirements that actually apply individually to the units listed in the groups. However, since none of the units are physically capable of exceeding the rule limit, there is no need to do a unit-specific demonstration of compliance.

### **3.6 Comments Received**

No comments were received during the public or EPA notice/review periods.

Public Notice Period: 8/24/06 – 9/22/06

EPA 45-day Review Period: 8/24/06 – 10/9/06

## **4. Conclusion**

Based on the information provided by Nico Products Inc., the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05300113-002 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Peggy L. Bartz (permit engineer)  
Suzanne Venem (enforcement)  
Toni Volkmeier (peer reviewer)

Attachments: 1. PTE Summary and Calculation Spreadsheets  
2. Facility Description and CD-01 Forms

**ATTACHMENT 1**  
**PTE Summary and Calculation Spreadsheets**  
**(paper copy only)**



**ATTACHMENT 2**  
**Facility Description and CD-01 Forms**  
**(paper copy only)**