

This is the draft permit referenced in the July 23, 2012, Notice of Public Meeting for the Environmental Assessment Worksheet for Northern Metals LLC. This draft permit was public noticed on November 17, 2011-December 16, 2011, and January 13, 2012-February 21, 2012. The Minnesota Pollution Control Agency (MPCA) is currently revising this draft permit and conditions may be subject to change. The draft permit is not on public notice and, therefore, the MPCA is not accepting comments on the draft permit.

DRAFT

AIR EMISSION PERMIT NO. 05300480- 003
Major Amendment

IS ISSUED TO

Northern Metals LLC

NORTHERN METALS LLC
2800 Pacific Street North
Minneapolis, Hennepin County, Minnesota 55411

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the Permit Applications Table.

This permit amendment supersedes Air Emission Permit No. 05300480-002, and 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.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such as are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Permit Type: State Permit; Limits to avoid Part 70/Limits to avoid NSR; True Minor for NSR

Operating Permit Issue Date: December 8, 1998

Major Amendment Issue Date: <issue date>

Expiration Date: Nonexpiring – Title I Conditions do not expire.

Don Smith, P.E., Manager
Air Quality Permits Section
Industrial Division

for Paul Aasen
Commissioner
Minnesota Pollution Control Agency

Permit Applications Table

Permit Type	Application Date	Permit Action
Total Facility Operating Permit	08/21/1996	002
Major Amendment	08/30/2010, 10/06/2011 (supplemental information)	003

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Amendment Description

Table A: Limits and Other Requirements

Table B: Submittals

Appendix A: Insignificant Activities and General Applicable Requirements

Appendix B: Feedstock Control Plan

Appendix C: Parameters used in PM₁₀ and PM_{2.5} NAAQS Modeling

Appendix D: Parameters used in Air Toxics Modeling

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:

Northern Metals, LLC (Permittee) is a metal recycling company whose wholly-owned subsidiary, American Iron & Supply Company, operates the Pacific Street Yard facility at 2800 Pacific Street North. – Minneapolis, Minnesota. The facility includes 12 acres of property and five buildings: the Office Building, the South Warehouse (attached to the Office Building), the Metal Shredder Building, the North Warehouse, and Metal Recycling Plant Building (which includes the attached Rain and Snow Shed) and the Scale Building. The Pacific Street Yard accepts most grades of bulk quantity commercial, industrial, and demolition scrap metal and processes it for sale to customers such as steel mills, foundries, smelting plants, or primary aluminum plants

The facility operates a Metso Texas hammermill metal shredder. The shredder consists of the in-feed conveyor system, the shredder itself, size separation equipment (referred to collectively as the cascade cleaning system), initial magnetic separation equipment, manual separation stations, finished product conveyor system, and the associated air pollution control equipment. For the purpose of the air permit, the shredder itself and the cascade cleaning system are each considered an emission unit. The control equipment design uses two exhaust streams – one from the shredder and one from the cascade cleaning system. Each exhaust stream is controlled by a high efficiency cyclone, a wet scrubber, and a fabric filtration system. The controlled emissions from the two exhaust streams vent through a single stack.

Other sources of air emissions at the facility are fugitive particulate emissions from product storage piles, paved roads, and raw material handling.

The majority of the emissions from the facility are particulate matter emissions (total Particulate Matter (PM), Particulate Matter less than 10 microns (PM_{10}), and Particulate Matter less than 2.5 microns ($PM_{2.5}$)). The facility also emits small amounts of Volatile Organic Compounds (VOC), Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Sulfur Dioxide (SO_2), and greenhouse gases from the combustion of natural gas in units classified as insignificant activities.

AMENDMENT DESCRIPTION:

This permit action is a major amendment to change site-specific conditions. Although the proposed emissions increases in this permit action do not trigger the need for environmental review, the Permittee submitted a voluntary Environmental Assessment Worksheet (EAW) and Air Emissions Risk Analysis (AERA) with the permit amendment. The amendment does not authorize construction.

This permit action:

- Updates the permit to correctly reflect the type of shredder and pollution control equipment employed at the facility
- Modifies the particulate matter limit to account for condensable particulate matter, and adds limits for PM_{10} and $PM_{2.5}$
- Modifies the form of the mercury limit and includes a more enforceable compliance demonstration
- Eliminates unnecessary and redundant feedstock restrictions
- Removes the restriction on shredding auto hulks
- Eliminates requirements that have been fulfilled
- Sets testing frequencies for subsequent performance tests

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 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
SITE-SPECIFIC REQUIREMENTS	hdr
Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.	Minn. R. 7007.0800, subp. 2
Fugitive Emissions Control Plan: The Permittee shall submit to the Commissioner and implement a fugitive emissions control plan within 60 days of the date of permit issuance. The plan shall identify all fugitive emission sources, primary and contingent control measures, and recordkeeping. The Permittee shall follow the actions and record keeping specified in the control plan. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive emission control plan, then the Permittee may be required to amend the control plan.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.0150; Minn. R. 7009.0020
Feedstock Control Plan: The Permittee shall follow the actions and recordkeeping specified in the feedstock control plan in Appendix B of this permit. The Permittee shall modify the plan whenever the feedstock control practices change. The Permittee shall submit the amended plan to the Commissioner for approval within 30 days of making the change(s). Upon approval, the amended plan supersedes the previous plan as an enforceable part of the permit. The Permittee shall keep the most up-to-date feedstock control plan onsite and available to the MPCA upon request.	Minn. R. ch. 4410; Findings of 1995 EAW; Findings of 2011 EAW Findings; Minn. R. 7007.0800, subp. 2
MODELING REQUIREMENTS	hdr
The parameters used in PM10, and PM2.5 modeling for the Environmental Assessment Worksheet under Minn. R. ch. 4410 for permit number 05300480-003 are listed in Appendix D of this permit.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Modeling Triggers: For changes that do not require a permit amendment and affect any modeled parameter or PM2.5 emission rate documented in Appendix C, or are an addition to the information documented in Appendix C, a Remodeling Submittal requirement is not triggered at the time of the change. The Permittee shall keep updated records on site of all parameters and emission rates. The Permittee shall submit any changes to parameters and emission rates with the next required Remodeling Submittal.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
For changes that require a minor, moderate, or major permit amendment and affect any modeled parameter or PM2.5 emission rate documented in Appendix C, or are an addition to the information documented in Appendix C, a Remodeling Submittal requirement is triggered. The Permittee shall include previously made changes to parameters and PM2.5 emission rates that did not trigger a Remodeling Submittal.	
For PM2.5 Modeling Only: Remodeling Submittal: The Permittee must submit to the Commissioner for approval changes meeting the above criteria and must wait for a written approval before making such changes. For minor amendments, written approval of the modeling may be given before permit issuance; however, this approval applies only to the modeling and not to any other changes. The information submitted must include, for stack and vent sources, source emission rate, location, height, diameters, exit velocity, exit temperature, discharge direction, use of rain caps or rain hats, and, if applicable, locations and dimensions of nearby buildings. For non-stack/vent sources, this includes the source emission rate, location, size and shape, release height, and, if applicable, any emission rate scalars, and the initial lateral dimensions and initial vertical dimensions and adjacent building heights.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
For PM2.5 Modeling Only The plume dispersion characteristics due to the revisions of the information must be equivalent to or better than the dispersion characteristics modeled in the August 2010 "National Ambient Air Quality Standards Modeling Analysis for a Metal Recycling Facility" Report. The Permittee shall demonstrate this equivalency in the proposal. If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must submit full remodeling.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080, continued

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2** 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

The parameters used in air toxics modeling for the Environmental Assessment Worksheet under Minn. R. ch. 4410 for permit number 05300480-003 are listed in Appendix D of this permit.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0800, subps. 1, 2 & 4
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, subp. 7(A), 7(L), & 7(M); 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.	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 federally enforceable.	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 Test Notifications and Submittals: Performance Tests are due as outlined in Table A and B of the permit. For each Performance Test listed in Table A and/or B of this permit, the following actions and submittals are due as outlined below: 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 - Compact Disc 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 or as allowed by the MPCA Electronic Submittal Policy of March 3, 2010.	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A and/or B.	Minn. R. ch. 7017
Process or operational 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. For performance tests conducted on SV 001, this condition applies to operating limits on shredder output.	Minn. R. 7017.2025, subp. 3
MONITORING REQUIREMENTS	hdr

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

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Monitoring Equipment Calibration: The Permittee shall calibrate all required monitoring equipment at least once every 12 months (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 and/or B, 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)
RECORDKEEPING	hdr
Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, 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)
If 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 nonexpiring permits, these records shall be kept for a period of five (5) 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.	Minn. R. 7007.1200, subp. 4
REPORTING/SUBMITTALS	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-4**

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Application for Permit Amendment: If you need a permit amendment, submit 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). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet 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 - 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 - 7002.0095
NOISE TESTING	hdr
Performance Test: due before end of each calendar year following Initial Startup to measure noise.	Minn. R. ch. 4410; 1995 EAW Findings

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-5 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: SV 001**Associated Items:** EU 001 Scrap Metal Hammermill Shredder

EU 002 Cascade Cleaning System

What to do	Why to do it
See EU 001, CE 001, and CE 004-007 for monitoring, recordkeeping, and reporting that support the limits listed at SV 001.	hdr
INDUSTRIAL PROCESS EQUIPMENT RULE LIMITS	hdr
Opacity: less than or equal to 20 percent opacity Note: This limit applies individually to EU 001 and EU 002, but is listed at the SV level because the units vent to a common stack.	Minn. R. 7011.0715, subp. 1(B)
Total Particulate Matter: less than or equal to 0.30 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. Note: This limit applies individually to EU 001 and EU 002, but is listed at the SV level because these units vent to a common stack.	Minn. R. 7011.0715, subp. 1(A)
ENVIRONMENTAL REVIEW-BASED LIMITS AND REQUIREMENTS	hdr
Total Particulate Matter: less than or equal to 4.20 lbs/hour This limit is more stringent than Minn. R. 7011.0715, subp. 1(A) limit for total particulate matter.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080 and Minn. R. ch. 4410; Findings of 2011 EAW
PM < 10 micron: less than or equal to 4.20 lbs/hour	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080 and Minn. R. ch. 4410; Findings of 2011 EAW
PM < 2.5 micron: less than or equal to 4.20 lbs/hour	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080 and Minn. R. ch. 4410; Findings of 2011 EAW
Lead: less than or equal to 15.1 lbs/year	Minn. R. ch. 4410; Findings of 2011 EAW
Arsenic compounds: less than or equal to 2.42 lbs/year (The limit is on the weight of arsenic itself.)	Minn. R. ch. 4410; Findings of 2011 EAW
Beryllium: less than or equal to 7.56 lbs/year	Minn. R. ch. 4410; Findings of 2011 EAW
Cadmium compounds: less than or equal to 4.91 lbs/year (The limit is on the weight of cadmium itself.)	Minn. R. ch. 4410; Findings of 2011 EAW
Chromium compounds: less than or equal to 1.40 lbs/year (The limit is on the weight of hexavalent chromium itself.)	Minn. R. ch. 4410; Findings of 2011 EAW
Manganese compounds: less than or equal to 33.2 lbs/year (The limit is on the weight of manganese itself.)	Minn. R. ch. 4410; Findings of 2011 EAW
Nickel compounds: less than or equal to 60.4 lbs/year (The limit is on the weight of nickel itself.)	Minn. R. ch. 4410; Findings of 2011 EAW
TCDD Toxic Equivalents: The MPCA reserves its authority to require one-time performance testing for PCBs and dioxins/furans. The performance testing shall be used to calculate the combined TCDD toxic equivalents of PCBs and dioxins/furans. The Permittee shall sum the TCDD toxic equivalents calculated for PCBs and dioxins/furans. The TCDD toxic equivalents shall be calculated using the highest stack test run for each compound, or if the compound was not detected, the average instrument detection limit.	Minn. Stat. Section 116.07, subd 9(b); Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS
A-6 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Performance Test Requirements: Unless otherwise specified in an MPCA-approved performance test plan, during the performance test, the Permittee shall record the total weight of material output, and, at a minimum of 15 minute intervals, the control device parameters. The Permittee shall record the parameters specified below: CE 001 - pressure drop in inches of water column CE 004 - pressure drop in inches of water column, and scrubber liquid level CE 005 - pressure drop in inches of water column, and scrubber liquid level CE 006 - pressure drop in inches of water column CE 007 - pressure drop in inches of water column	Minn. R. 7017.2035, subp. 3; Minn. R. 7007.0800, subp. 2
Performance Test Requirements Continued: For the purposes of determining "worst case conditions" under Minn. R. 7017.2025, subp. 3. The Permittee shall use daily records of output and hours of operation from the previous 12-month period to estimate worst case ton/hr output. E.g. the Permittee shall determine the 90th percentile of (total daily shredder output)/(daily hours of operation) for the previous 12-month period. That number shall be used for worst case shredder output.	Minn. R. 7017.2025, subp. 3; Minn. R. 7007.0800, subp. 2
Performance Test: due before end of each calendar 60 months starting 12/22/2009 to measure the emission rate of particulate matter from SV 001.	Minn. R. 7017.2020, subp. 1; Minn. R. ch. 4410; Findings of 2011 EAW
Performance Test: due before end of each calendar 60 months starting 12/22/2009 to measure the emission rate of particulate matter less than 10 microns from SV 001.	Minn. R. 7017.2020, subp. 1; Minn. R. ch. 4410; Findings of 2011 EAW
Performance Test: due before end of each calendar 60 months starting 12/22/2009 to measure the emission rate of particulate matter less than 2.5 microns from SV 001.	Minn. R. 7017.2020, subp. 1; Minn. R. ch. 4410; Findings of 2011 EAW
Performance Test: due before end of each calendar 60 months starting 12/22/2009 to measure the opacity of SV 001.	Minn. R. 7017.2020, subp. 1; Minn. R. ch. 4410; Findings of 2011 EAW
MERCURY LIMIT AND REQUIREMENTS	hdr
Mercury: less than or equal to 3.0 lbs/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.	Minn. R. ch. 4410; Findings of 2011 EAW
Monthly Recordkeeping - Mercury Emissions By the 15th of the month, the Permittee shall calculate and record the following 1) The total shredder output, in tons, using daily output records (as required under EU 001 of this permit); 2) The Mercury emissions from the previous month using the formulas specified below; and 3) The 12-month rolling sum Mercury emissions for the previous 12-month period by summing the monthly Mercury emissions data for the previous 12 months	Minn. R. 7007.0800, subp. 4 & 5
Monthly Calculation - Mercury Emissions The Permittee shall calculate Mercury emissions using the following equations: $E_{Hg} = EF_{Hg} \times A$ Where: E_{Hg} = Total mercury emissions in lbs/month EF_{Hg} = Mercury emission factor calculated as described below in lbs/ton output A = the total shredder output in the past month in tons/month	Minn. R. 7007.0800, subp. 4 & 5
Performance Test: due 180 days after achieving normal operation while processing auto hulks. The performance test is for mercury. The Permittee shall conduct a minimum of 3 test runs, but may conduct up to a maximum of 6 test runs. For each test run, the Permittee shall measure and record the weight of shredder output during each test run in tons/hr.	Minn. R. 7017.2020, subp. 1; Minn. R. ch. 4410; Findings of 2011 EAW
Performance Test: due before end of each calendar year following Initial Performance Test for mercury. This condition applies starting in the calendar year following the initial performance test. The time between the initial performance test and the subsequent performance test shall not exceed 18 months. The performance test shall be conducted while processing auto hulks. The Permittee shall conduct a minimum of 3 test runs, but may conduct up to a maximum of 6 test runs. For each test run, the Permittee must measure and record the weight of shredder output during each test run in tons/hr. If the Permittee demonstrates compliance with the mercury emission limit for three consecutive years after the first performance test conducted while shredding auto hulks, the Permittee may implement testing for mercury not less than once every three years.	Minn. R. 7017.2020, subp. 1; Minn. R. ch. 4410; Findings of 2011 EAW

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

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

<p>Mercury Emission Factor Calculation:</p> <p>Within 15 days after receipt of a Notice of Compliance from the MPCA for the mercury performance test, the Permittee shall calculate a mercury emission factor based on the performance test results. The emission factor shall be calculated as follows:</p> $EF_{Hg} = [\text{sum}(A1 + A2 + A3... + A6) / \text{sum}(B1 + B2 + B3... + B6)] / n$ <p>Where:</p> <p>EF_{Hg} = Mercury emission factor (lb/ton output)</p> <p>A# = Test run # mercury emission rate (lb/hr)</p> <p>B# = Test run # shredder output (tons/hr)</p> <p>n = total number of test runs</p> <p>Where the test run mercury emission rate is below the method detection limit, the method detection limit shall be used in the emission factor calculation.</p> <p>The Permittee shall begin using the new emission factor in the first monthly mercury emissions calculation that is performed after the emission factor is calculated and until a new emission factor is calculated based on the next performance test.</p>	Minn. R. 7007.0800, subp. 4 & 5
<p>Mercury Emission Factor Continued:</p> <p>After permit Issuance, and until an emission factor is calculated based on the performance test required by this permit, the Permittee shall use the total of all six valid test runs from the June 22, 23, and 29, 2010 performance tests to calculate a mercury emission factor according to the equation above.</p>	Minn. R. 7007.0800, subp. 4 & 5

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

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: EU 001 Scrap Metal Hammermill Shredder**Associated Items:** CE 001 Centrifugal Collector - High Efficiency

CE 004 Venturi Scrubber

CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 001

What to do	Why to do it
The Permittee shall vent emissions from EU 001 to control equipment meeting the requirements of CE 001, CE 004, and CE 006 (control equipment in series), at all times that EU 001 is operating.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; under 40 CFR Section 70.2 and Minn. R. 7007.0200; and under 40 CFR Section 63.2
Process Throughput: less than or equal to 377,800 tons/year using 12-month Rolling Sum to be calculated by the 15th of the following month. This limit is on shredder output of metals. (This limit is based on a nominal output of 100 tons/hr and limited operating hours of 3,778 hrs/yr.)	Minn. R. ch. 4410; Findings of 1995 EAW; Findings of 2011 EAW
Process Throughput: less than or equal to 2,400 tons/day This limit is on shredder output of metals.	Minn. R. ch. 4410; EAW; Findings of 2011 EAW
Recordkeeping: The Permittee shall maintain the following records: 1) Hours of operation of the shredder, daily, when the shredder is in operation. Records shall be generated by the end of each day of operation. 2) Weight of all ferrous metals processed at the shredder (shredder output), daily. Records shall be generated by the end of each day of operation. 4) Weight of all non-ferrous metals processed at the shredder (shredder output), at least monthly. Records for the previous month shall be compiled by the 15th of the month.	Minn. R. 7007.0800, subps. 4 and 5; Minn. R. ch. 4410; Findings of 1995 EAW; Findings of 2011 EAW
Recordkeeping Continued: By the 15th of the month, the Permittee shall calculate and record the following 1). The total shredder output of metals during the previous calendar month using daily records records of ferrous metals output and monthly records of non-ferrous metals output. 2). The 12-month rolling sum shredder output of metals for the previous 12-month period by summing the monthly output data for the previous 12 months.	Minn. R. 7007.0800, subps. 4 and 5; Minn. R. ch. 4410; Findings of 1995 EAW; Findings of 2011 EAW
The Permittee shall operate EU 001 only during the hours listed below: Monday through Friday: 7:00 a.m. to 6:00 p.m. Saturday, Sunday and Legal Holidays: 9:00 a.m. to 6:00 p.m.	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-9** 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: EU 002 Cascade Cleaning System**Associated Items:** CE 005 Venturi Scrubber

CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 001

What to do	Why to do it
The Permittee shall vent emissions from EU 002 to control equipment meeting the requirements of CE 005 and CE 007 (control equipment in series), at all times that EU 002 is operating.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; under 40 CFR Section 70.2 and Minn. R. 7007.0200; and under 40 CFR Section 63.2
The Permittee shall operate EU 002 only during the hours listed below: Monday through Friday: 7:00 a.m. to 6:00 p.m. Saturday, Sunday and Legal Holidays: 9:00 a.m. to 6:00 p.m. (Associated recordkeeping requirements at EU 001)	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-10** 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: CE 001 Centrifugal Collector - High Efficiency**Associated Items:** EU 001 Scrap Metal Hammermill Shredder

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain the cyclone (CE 001) at any time that the process equipment controlled by the cyclone (EU 001) is 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; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp 2 & 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable Total Particulate Matter: greater than or equal to 90 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp 2 & 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 10 micron: greater than or equal to 78 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp 2 & 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 2.5 micron: greater than or equal to 78 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 63.2; To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp 2 & 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for HAP-Metal: greater than or equal to 78 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp 2 & 14
Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 11.0 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 new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0800 subp 2 & 14; and Minn. R. 7017.2025, subp. 3
MONITORING AND RECORDKEEPING	hdr
Recordkeeping: Once every 24 hours when in operation, the Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0800, subp. 4 & 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the cyclone 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 cyclone. The Permittee shall keep a record of the type and date of any corrective action taken for the cyclone.	Minn. R. 7007.0800, subps. 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 cyclone is in operation.	Minn. R. 7011.0800, subp. 4
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, subps. 4, 5 and 14
The Permittee shall operate and maintain the fabric 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

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-11 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: CE 004 Venturi Scrubber**Associated Items:** EU 001 Scrap Metal Hammermill Shredder

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain the scrubber (CE 004) at any time that the process equipment controlled by the scrubber (EU 001) is 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; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable Total Particulate Matter: greater than or equal to 94 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 10 micron: greater than or equal to 84 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 2.5 micron: greater than or equal to 84 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for HAP-Metal: greater than or equal to 84 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 63.2; To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
Pressure Drop: greater than or equal to 4.0 inches of water column and less than or equal to 9.0 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 new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14 and Minn. R. 7017.2025, subp. 3
Scrubber Liquid Level: greater than or equal to 7.0 gauge and less than or equal to 7.5 gauge, 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 new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14 and Minn. R. 7017.2025, subp. 3
MONITORING AND RECORDKEEPING	hdr
Recordkeeping: The Permittee shall do the following, once every 24 hours when in operation: 1). Read and record the scrubber liquid level; and 2). Read and record the pressure drop across the scrubber.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 & 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded scrubber liquid level is outside the required operating range; or - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop within the permitted range, and/or scrubber liquid level 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 scrubber. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subps. 4, 5, and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and scrubber liquid level as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation.	Minn. R. 7007.0800, subp. 4

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

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

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, subps. 4, 5 and 14
The Permittee shall operate and maintain the scrubber 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

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-13** 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: CE 005 Venturi Scrubber**Associated Items:** EU 002 Cascade Cleaning System

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain the scrubber (CE 005) at any time that the process equipment controlled by the scrubber (EU 002) is 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; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable Total Particulate Matter: greater than or equal to 94 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 10 micron: greater than or equal to 84 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 2.5 micron: greater than or equal to 84 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for HAP-Metal: greater than or equal to 84 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 63.2; To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14
Pressure Drop: greater than or equal to 4.0 inches of water column and less than or equal to 9.0 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 new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14 and Minn. R. 7017.2025, subp. 3
Scrubber Liquid Level: greater than or equal to 7.0 gauge and less than or equal to 7.5 gauge, 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 new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800 subp. 2 and 14 and Minn. R. 7017.2025, subp. 3
MONITORING AND RECORDKEEPING	hdr
Recordkeeping: The Permittee shall do the following, once every 24 hours when in operation: 1). Read and record the scrubber liquid level; and 2). Read and record the pressure drop across the scrubber.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 & 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded scrubber liquid level is outside the required operating range; or - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or scrubber liquid level 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 scrubber. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subps. 4, 5, and 14
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and scrubber liquid level as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation.	Minn. R. 7007.0800, subp. 4

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

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

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, subps. 4, 5 and 14
The Permittee shall operate and maintain the scrubber 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

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-15 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 001 Scrap Metal Hammermill Shredder

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain the fabric filter (CE 006) at any time that the process equipment controlled by the fabric filter (EU 001) is 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; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 10 micron: greater than or equal to 93 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 2.5 micron: greater than or equal to 93 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for HAP-Metal: greater than or equal to 93 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 63.2; To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
Pressure Drop: greater than or equal to 2.0 inches of water column and less than or equal to 8.0 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 new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3
MONITORING AND RECORDKEEPING	hdr
Recordkeeping: Once every 24 hours when in operation, the Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0800 subp. 4 & 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - 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, subps. 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. 7007.0800, subp. 4
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, subps. 4, 5 and 14
The Permittee shall operate and maintain the fabric 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

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-16** 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F**Associated Items:** EU 002 Cascade Cleaning System

What to do	Why to do it
EMISSION AND OPERATIONAL LIMITS	hdr
The Permittee shall operate and maintain the fabric filter (CE 007) at any time that the process equipment controlled by the fabric filter (EU 002) is 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; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 10 micron: greater than or equal to 93 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for filterable PM < 2.5 micron: greater than or equal to 93 percent control efficiency	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000 and To avoid classification as major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for HAP-Metal: greater than or equal to 93 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 63.2; To avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14
Pressure Drop: greater than or equal to 1.8 inches of water column and less than or equal to 8.0 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 new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3
MONITORING AND RECORDKEEPING	hdr
Recordkeeping: Once every 24 hours when in operation, the Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; To avoid classification as a major source under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7011.0800 subp. 4 & 5
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - 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, subps. 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. 7007.0800, subp. 4
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, subps. 4, 5 and 14
The Permittee shall operate and maintain the fabric 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

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

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: FS 001 Product storage piles

What to do	Why to do it
The Permittee shall take reasonable measures to prevent particulate matter from becoming airborne. The Permittee shall comply with the Fugitive Dust Control Plan referenced under the Total Facility Section of this permit.	Minn. R. 7011.0150

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

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: FS 002 Paved roads

What to do	Why to do it
The Permittee shall incorporate the following requirements into the Fugitive Dust Control Plan referenced under the Total Facility Section of this permit.	Minn. R. 7007.0800, subp 2
The Permittee shall clean, once per calendar day, all primary road entrances, internal roads, and exits of the Permittee's property, except as provided below: 1) If there was a 0.1 inch rainfall during the previous 24 hours, or 2) If the areas to be cleaned are covered with snow or ice, or 3) During freezing conditions	Minn. R. 7011.0150 and Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
The Permittee shall maintain daily records of: 1) The date and time of each dust control measure; 2) The roads/areas that were cleaned; 3) If dust control measures were not taken because of a rainfall event or because an area is snow or ice-covered, documentation of the event or condition along with the source of measurement for rainfall (i.e. on-site rain gauge); 4) If dust control measures were not taken because of weather conditions, documentation of the date and those conditions (e.g. records of the date(s) and a statement that there were freezing conditions). 4) Any cleaning equipment breakdown and corrective actions.	Minn. R. 7011.0150; Minn. R. 7007.0800, subp. 2 and Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080

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

01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

Subject Item: FS 003 Raw material handling

What to do	Why to do it
The Permittee shall take reasonable measures to prevent particulate matter from becoming airborne. The Permittee shall comply with the Fugitive Dust Control Plan referenced under the Total Facility Section of this permit.	Minn. R. 7011.0150

TABLE B: SUBMITTALS**B-1** 01/09/12

Facility Name: Northern Metals LLC
Permit Number: 05300480 - 003

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

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

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 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 any application for a permit or permit amendment to:

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

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

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: RECURRENT SUBMITTALS**B-2** 01/09/12

Facility Name: Northern Metals LLC

Permit Number: 05300480 - 003

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 12/08/1998 If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 12/08/1998 (for the previous calendar year). To be submitted on a form approved by the Commissioner.	Total Facility
Performance Test Plan	due 30 days before end of each calendar year following Permit Issuance A Noise Monitoring Plan, in accordance with Minn. R. 7030.0060, shall be submitted for MPCA approval. (due 30 days before each Noise Performance Test.)	Total Facility
Performance Test Report	due 60 days after end of each calendar year following Performance Test (60 days after each Noise Performance Test).	Total Facility

APPENDIX A: Insignificant Activities and General Applicable Requirements

Facility Name: Northern Metals LLC

Permit Number: 05300480-003

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

Minn. R.	Rule Description of the Activity	General Applicable Requirement
7007.1300 subp. 3(H)(3)	Miscellaneous brazing, soldering, or welding equipment. <i>Northern Metals has welding equipment used for maintenance</i>	Minn. R. 7011.0710/715 PM & Opacity
7007.1300 subp. 3(I)	Emission units with PTE less than 1) 2000 lb/yr PM, PM ₁₀ , PM _{2.5} , NO _x , VOC, and ozone and 2) 4000 lb/yr CO, and 3) 1000 tpy of CO ₂ e <i>Northern Metals has:</i> <ul style="list-style-type: none"> • 384,000 Btu/hr natural gas fired boiler • Five 64,000 Btu/hr natural gas fired rooftop heaters • Four 173,250Btu/hr natural gas fired space heaters • 750,000 Btu/hr and 395,000 Btu/hr evaporators • CO₂gas used in welding, 176 CF tanks containing 75% argon/25% CO₂ 	Minn. R. 7011.0710/715 PM & Opacity
7007.1300 subp. 3(J)	Fugitive dust from unpaved roads and parking lots <i>Northern Metals has a small unpaved area behind the North Warehouse</i>	Minn. R. 7011.0150 PM & Opacity

APPENDIX B: Feedstock Control Plan (as of permit issuance)

Facility Name: Northern Metals LLC

Permit Number: 05300480-003

***FEEDSTOCK CONTROL PLAN
FOR THE
HAMMERMILL METAL SHREDDER
AT THE
PACIFIC STREET YARD***

***Prepared for
Northern Metals, LLC
Minneapolis, Minnesota***

June 2011

FEEDSTOCK CONTROL PLAN
FOR THE
HAMMERMILL METAL SHREDDER
AT THE
PACIFIC STREET YARD

This *Feedstock Control Plan For The Hammermill Metal Shredder At The Pacific Street Yard* (this “Plan”) is part of the environmental program at the Northern Metals, LLC’s Pacific Street Yard, located at 2800 Pacific Street North, Minneapolis, Minnesota (“Pacific Street Yard” or “Yard”). Northern Metals, LLC d/b/a Northern Metal Recycling (“Northern Metal Recycling” or the “company”) considers environmentally-responsible recycling a major part of the company’s corporate culture. Environmental policies and procedures designed to ensure environmental responsibility are an integral part of all company operations from purchasing of scrap materials from suppliers to sales to consuming steel mills and other customers. While this Plan is specific to controlling feedstock for the hammermill metal shredder (“shredder”) at the Pacific Street Yard, it relies in part on environmental programs that are implemented at all Northern Metal Recycling facilities.

This Plan has been developed to comply with the following federal and state rules, policies, guidance documents, and permits:

- Stratospheric Ozone Protection Requirements (1990 Clean Air Act, as amended, Sections 601-618; 40 CFR 82) (“CFC Requirements”) Recycling and Emissions Reduction;
- National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources (40 CFR 63 Subpart ZZZZZ) (Northern Metal Recycling must meet these requirements to provide scrap for iron and steel foundries);
- Implementation Plan for Minnesota’s Statewide Mercury Total Maximum Daily Load, October 2009 , Smelters & Shredders that Recycle Cars & Appliances;
- Air Emission Permit No. 05300480-002 issued December 8, 1998 (“Air Emission Permit”); and
- National Pollutant Discharge Elimination System (NPDES) / State Disposal System (SDS) Permit MN0063380 issued November 1, 2009.

The five key components of the Northern Metal Recycling Feedstock Control Plan are:

- I. Internal Practices And Training;
- II. Restrictions On Incoming Scrap Materials;
- III. Supplier Education And Certification;
- IV. Load Inspections; and
- V. Recordkeeping.

I. INTERNAL PRACTICES AND TRAINING

For many years, Northern Metal Recycling has used internal Best Management Practices (“BMPs”) at its facilities, including the Pacific Street Yard, to assure compliance with environmental laws and regulations. The practices are described in this section and will continue in use at the Pacific Street Yard as part of this Plan.

A. Full-Time Environmental Manager

Northern Metal Recycling has employed a full time Environmental Manager since 1990. The role of the Environmental Manager is to establish environmental policies, oversee their implementation, and educate Northern Metal Recycling personnel on existing and new environmental regulations and environmental procedures.

B. Awareness of Regulatory Changes and Updates

The Environmental Manager regularly attends educational conferences, primarily in the areas of solid and hazardous waste management, to keep abreast of new state and local regulations. The Environmental Manager also participates in trade associations that track legislative and regulatory developments on the federal and state level. This educational information is used to continually update procedures to reflect the latest changes in regulations, laws, and programs.

C. Environmental Training And Supervision

1. General Employee Training.

Northern Metal Recycling trains its yard and office employees at least once every 12 months to be aware of environmental specifications and inspection procedures. This training takes place at annual OSHA Right-To-Know training and at special meetings when needed. This includes training on how to clean up various spills and how employees can protect themselves from spills. In addition, employees with field experience conduct hands on training in the identification of unacceptable and provisionally unacceptable materials, and in the identification, removal, and proper storage of hazardous materials, pollutants, and contaminants. Environmental procedures and policies are also disseminated at monthly safety committee meetings. Training for new employees is completed prior to assignment of duties.

2. Special Training On Appliance Processing

Some employees receive special training on how to identify and remove hazardous materials, including mercury containing components, from appliances. Training on the removal of mercury containing components uses the *Managing Appliance Recycling Instructional Guide*. This guide shows the location of mercury containing ballast, capacitors, flame sensors, fluorescent tube, probes, safety valves, switches, tilt switches, and other components for each appliance. These employees process scrap metal that

may have contained hazardous materials and mercury containing components that have not been processed before arriving at a facility.

3. *Special Training On Vehicle Processing*¹

Some employees receive special training in End of Life Vehicle (“ELV”) processing. ELV processing uses state of the art techniques and equipment to remove hazardous materials, pollutants, and contaminants from vehicles before they are crushed, shredded, or otherwise processed. This training includes specific instruction about the End of Life Vehicle Solutions for mercury components in vehicles developed as part of the National Vehicle Mercury Switch Recovery Program.²

D. Regular Supervision

Area supervisors inspect work areas once a week and document their inspections. As part of this inspection, the supervisor checks that hazardous materials are segregated from the feedstock materials and properly disposed of. All drums of hazardous material are inspected for the following:

- Containers closed;
- Containers in good condition;
- Containers labeled correctly;
- Labels visible and complete;
- Storage time limits;
- Accumulation limits;
- Spills or leaks;
- Cracks in floor; and
- General housekeeping in the area.

The Environmental Manager performs monthly spot inspections to ensure compliance with established BMPs.

E. Regular Environmental Inspections

In addition to load inspections described in Section III, twice a year the Environmental Manager conducts an environmental inspection of each facility to ensure that water quality, air quality, and solid and hazardous waste regulations are being observed. Northern Metal

¹ The Air Emission Permit uses the term “auto hulks” rather than vehicles. In this Plan, Northern Metal Recycling uses the term “vehicles” which includes auto hulks but also includes trucks and other vehicles that may be recycled.

² As noted below in Section IIB, Northern Metal Recycling does not currently process vehicles at the Pacific Street Yard, either to remove refrigerants, hazardous, wastes, pollutants, or contaminants from them or to shred them. If the MPCA approves the requested amendment to the Air Emission Permit to allow vehicles to be recycled in the shredder, vehicles would be received at the Pacific Street Yard subject to the restrictions in Section IIB, and this footnote would be removed from this Plan.

Recycling also uses and maintains the BMPs required in its Storm Water Pollution Prevention Plan. These inspections are part of Northern Metal Recycling's environmental program and are also required to comply with certain regulatory obligations.

II. RESTRICTIONS ON INCOMING SCRAP MATERIALS

Northern Metal Recycling's first line of defense against hazardous wastes, pollutants, and contaminants entering its facilities and against explosions at its facilities (and specifically in the shredder) are the company's restrictions on incoming scrap material, which are described in this section. At the Pacific Street Yard, additional restrictions apply to some scrap materials. These special requirements are also described in this section. The restrictions described in this section will continue in use at the Pacific Street Yard as part of this Plan.

A. Written Environmental Specifications

Northern Metal Recycling has adopted a formal corporate environmental policy and has developed written environmental specifications to identify scrap materials that will not be accepted, or will be accepted only under certain conditions, at the company's facilities, including the Pacific Street Yard.

For a listing of scrap materials that Northern Metal Recycling will NOT accept at its facilities, see Attachment 1, Unacceptable Materials.

For a listing of scrap materials that Northern Metal Recycling will accept only under certain circumstances, see Attachment 2, Provisionally Acceptable Materials.

B. Written Specifications For Certain Scrap Waste Streams

Northern Metal Recycling places specific restrictions on certain scrap waste streams – appliances, electronic waste, medical and dental equipment, and vehicles – that likely include hazardous materials, pollutants, and contaminants, including mercury containing components.

1. Appliances

a. Pacific Street Yard Special Restriction

At the Pacific Street Yard, Northern Metal Recycling will NOT accept appliances that need further processing before shredding. Only appliances that have been processed by a certified appliance recycler or by Northern Metal Recycling's trained employees are accepted to avoid accidental shredding of appliances that contain hazardous materials, including mercury containing components.

b. General Restrictions

When disposing of appliances or industrial process refrigeration equipment, federal and state law do not allow someone to knowingly vent or otherwise release into the environment any class I or class II substances used as a refrigerant in any appliance or industrial process refrigeration equipment. Instead, refrigerants must be removed prior to disposal or delivery for recycling.

Northern Metal Recycling does NOT accept any appliances that contain refrigerants. Common refrigerants include ozone-depleting substance called chlorofluorocarbons (“CFCs”) and hydrochlorofluorocarbons (“HCFCs”), which are also known by the trade name Freon. The following appliances are not accepted until refrigerants have been removed³:

- Air conditioners;
- Dehumidifiers;
- Freezers;
- Ice makers;
- Refrigerators;
- Vending machines; and
- Water coolers.

When suppliers bring these appliances to a facility, the load is rejected, and the supplier is directed to an appliance recycler licensed to remove the refrigerants. Once the licensed recycler certifies these removals, Northern Metal Recycling will accept the appliances for recycling.

Northern Metal Recycling accepts appliances that either (a) have been processed by a certified appliance recycler or (b) do not contain refrigerants and can be processed to remove the hazardous material, including mercury containing components, associated with appliances. The following list shows appliances that are accepted for further processing by Northern Metal Recycling:

- Clothes washers;
- Clothes dryers (gas and electric);
- Dishwashers;
- Garbage disposals;
- Gas furnaces and boilers (residential and commercial);
- Gas water heaters (residential and commercial);
- Conventional ovens (gas and electric);
- Microwave ovens;
- Ranges (gas and electric);
- Space heaters; (gas and electric);
- Stoves (gas and electric); and
- Trash compactors.

Once these unprocessed appliances are accepted, Northern Metal Recycling’s trained employees inspect each accepted appliance for hazardous materials, including

³ At present time, Northern Metal Recycling does not remove refrigerants from appliances. If in the future Northern Metal Recycling determines to enter this business, it will first become a state certified appliance recycler. At that point, Northern Metal Recycling may accept appliances containing refrigerants and remove the refrigerants at its facilities before further processing.

mercury containing components, and remove them.

2. *Electronic Waste Or E-Scrap*

Northern Metal Recycling does NOT accept electronic waste or “e-scrap” at its facilities. Northern Metal Recycling defines electronics or e-scrap to include any appliance or device used in the home or business that processes and displays information. Electronic appliances or devices are distinguished from other appliances by the presence of complex circuitry, circuit boards, or signal processing equipment

Typical items of electronic waste that are not acceptable at NMR facilities include the following:

Blackberry and similar devices	Heat sinks
Battery back-up units	Mercury bearing components
Cathode ray tubes	PCB bearing components
Capacitors	PCB bearing transformers and ballasts
Electrolytic capacitors	Phones
Clocks	Cell phones
Communications equipment	Printed circuit boards
Desktop computers	Printers
Laptop computers	Radios, stereos, I-Pods, MP3s, and other audio playback devices
Mainframe computers	Telecommunications equipment
Computer CRTs and monitors	Televisions
Computer hard and back-up drives	Semiconductor equipment
Computer keyboards and mice	Smoke alarms
Computer parts and accessories	Test equipment
DVD and CD players	Video monitors
Fax machines	Video recording and playback equipment

The list identifies examples of electronic waste and is not all-inclusive. Similar items will not be accepted at Northern Metal Recycling facilities.

3. *Medical And Dental Equipment*

Northern Metal Recycling lists medical and dental equipment as Provisionally Acceptable Materials at the company’s facilities. The provisions are: (a) the equipment cannot contain any electronics, hazardous wastes, pollutants or contaminants, including mercury containing components; and (b) the Environmental Manager must inspect the equipment and approve its acceptance.

4. *Vehicles*

a. *Pacific Street Yard Special Restriction*

Northern Metal Recycling will NOT accept vehicles at the Pacific Street Yard because they cannot be shredded under the Air Emission Permit.

[If the MPCA approves the requested amendment to the Air Emission Permit to allow vehicles to be recycled in the shredder, the language above would be stricken and replaced with the following special restriction and Section b. below on General Restrictions:]

Northern Metal Recycling will NOT accept any unprocessed vehicles at the Pacific Street Yard. All vehicles must be processed by a certified ELV supplier or by the company's trained employees before arriving at the Pacific Street Yard to avoid accidental shredding of vehicles that contain refrigerants, hazardous materials, pollutants, or contaminants, including mercury containing components.

b. *General Restrictions*

Northern Metal Recycling currently accepts vehicles at its other facilities. Vehicles arrive in one of two conditions – either (a) they have been processed by a certified vehicle supplier to remove refrigerants, hazardous wastes, pollutants, and contaminants, including mercury containing components or (b) they have not been processed. Unprocessed vehicles are inspected by the company's trained personnel who remove refrigerants, hazardous materials, contaminants, and pollutants, including mercury containing components. Vehicles that have been baled, crushed, logged or otherwise compressed before arriving at a company facility are only accepted from certified vehicle suppliers.

Under Minnesota Statutes § 116.92, subd.4(c), "A person may not crush a motor vehicle unless the person has first made a good faith effort to remove all of the mercury switches in the motor vehicle." As part of its commitment to comply with this statute, Northern Metal Recycling participates in the National Vehicle Mercury Switch Recovery Program ("NVMSRP"). EPA announced this national program on August 11, 2006. The NVMSRP is designed to recover 80 to 90 percent of available mercury switches, or an estimated 40 million mercury containing switches from scrap vehicles that are melted to make new steel. Northern Metal Recycling joined the NVMSRP on November 6, 2006.

As part of the NVMSRP, the automotive industry has identified End of Life Vehicle Solutions (ELVSs) that address mercury containing devices in vehicles including air bag sensor switches, automatic braking system switches, and light switches. Northern Metal Recycling processes all vehicles it receives using these ELVSs, unless they have been processed by another company before purchase by Northern Metal Recycling.

Northern Metal Recycling certifies both vehicle suppliers who participate in the NVMSRP and some who do not. For suppliers in the NVMSRP, Northern Metal Recycling audits the supplier's facilities annually to ensure compliance with the NVMSRP. For suppliers not in the NVMSRP, Northern Metals Recycling offers a bounty for mercury switch collection, audits the supplier's facilities annually to assure compliance with the company's certification requirements, and encourages participation in the NVMSRP.

5. *Radioactive Materials*

Northern Metal Recycling does NOT accept any radioactive materials at any of its facilities, including the Pacific Street Yard. Northern Metal Recycling operates a state-of-the-art radiation monitoring system at the Pacific Street Yard to enforce this restriction. The truck scale and rail scale are both equipped with the most advanced technology for detecting all types of radiation above background levels. Industrial smoke detectors, navigational equipment, spark gap indicators, thermostats, luminous signs, and ignition exciters are examples of scrap materials that may contain radiation.

Northern Metal Recycling has also developed and uses a set of Radiation Protection Safety Procedures. See Attachment 3, Radiation Protection Safety Procedures,

6. *Potentially Explosive Materials*

To minimize explosions in the shredder and in other handling and processing equipment at its facilities, Northern Metal Recycling has adopted the following specifications.

- Northern Metal Recycling does NOT accept any explosive or flammable materials or containers that hold these materials.
- Northern Metal Recycling will accept containers that previously held explosive or flammable materials, but only if the container has been emptied and cut into two pieces.
- Northern Metal Recycling will accept compressed gas cylinders and oxygen bottles, but only if the cylinder or bottle has been emptied and cut into two pieces, and the valves have been removed.
- Northern Metal Recycling will accept gas tanks or fuel tanks, but only if the tanks have been separated from other materials, completely drained, and cut into two pieces.
- Northern Metal Recycling will accept larger tanks that previously held explosive or flammable materials, but only if the tank is accompanied by a certification that the materials have been removed and is either cut into two pieces or approved for processing by the Environmental Manager.
- Northern Metal Recycling will accept baled, crushed, logged, or otherwise compressed vehicles, but only if the gas tank has been removed.⁴

⁴ As noted earlier in this Section IIB, Northern Metal Recycling does not currently process vehicles at the Pacific Street Yard, either to remove refrigerants, hazardous, wastes, pollutants, or contaminants from them or to shred them. If the MPCA approves the requested Air Emission Permit amendment to allow vehicles to be recycled in

III. SUPPLIER EDUCATION AND CERTIFICATION

Northern Metal Recycling's second line of defense against hazardous wastes, pollutants, and contaminants entering its facilities and against explosions at its facilities (and specifically in the shredder) are the company's supplier education and certification programs. These programs are described in this section and will continue in use at the Pacific Street Yard as part of this Plan.

A. Supplier Education

Northern Metal Recycling uses its Unacceptable Materials and Provisionally Acceptable Materials lists as educational tools with its suppliers. The lists are sent to suppliers annually and when they are updated. The lists are also available at the company's facilities for new suppliers where they are given to new suppliers. The Environmental Manager also communicates regularly with customers about these lists and answers compliance questions from suppliers.

To assist suppliers with recycling of materials that Northern Metal Recycling will not accept, the company maintains an up-to-date referral list of facilities which can legally accept and recycle these materials. See Attachment 4, Referrals. Items such as unprocessed used appliances, lead acid batteries, fluorescent bulbs, ballasts, mercury thermostats, electronic wastes, and tanks or other containers with liquids are included on this list. This referral list is sent annually to suppliers and is also given to suppliers when they bring unacceptable materials to a company facility.

Northern Metal Recycling uses its rejected load documentation and signs in the lobbies at its facilities to educate suppliers about acceptable and unacceptable materials. The Environmental Manager communicates with the company's buyers and inspections personnel about working with suppliers to comply with environmental requirements.

The Feedstock Control Plan at the Pacific Street Yard is updated whenever the Unacceptable Materials, Provisionally Acceptable Materials, or Referrals lists are updated.

B. Supplier Certification

1. *Appliance Recycler Certification*

As noted in Section II, Northern Metal Recycling does not accept any appliances that contain refrigerants. Northern Metal Recycling does accept these appliances after they are processed by appliance recyclers certified by Northern Metal Recycling. To be certified by Northern Metal Recycling, each appliance recycler must annually sign a certificate and a contract. The certificate includes information (a) demonstrating that the appliance recycler owns or leases the equipment necessary to properly remove

the shredder, vehicles would be received at the Pacific Street Yard subject to the restrictions in this Section IIB, and this footnote would be removed from this Plan.

refrigerants, (b) showing that the equipment operator is properly trained, and (c) verifying that the appliance recycler has obtained all permits for its appliance recycling business. Copies of an example supplier certificate and contract are provided in Attachment 5. If a supplier does not meet the requirements for certification, no material is accepted from the supplier until it certifies compliance. The contract provides that the appliance recycler (a) will inspect its appliances before delivery to Northern Metal Recycling, (b) warrants the scrap metal delivered will not include certain components and materials (specifically including refrigerants, hazardous wastes, pollutants, contaminants, and any containing mercury), and (c) indemnifies and holds harmless Northern Metal Recycling from all claims resulting from a breach of the contract.

2. *Vehicle Supplier Certification*

As noted in Section II, Northern Metal Recycling will accept vehicles from a certified vehicle supplier and then recycle them without further processing.⁵ To be certified by Northern Metal Recycling, each vehicle supplier must annually sign a certificate and a contract. The certificate includes information (a) demonstrating that the vehicle supplier owns or leases the equipment necessary to properly remove refrigerants, (b) showing that the equipment operator is properly trained, and (c) verifying that the vehicle supplier has obtained all permits for its vehicle recycling business. If a supplier does not meet the requirements for certification, no material is accepted from the supplier until it certifies compliance. The contract provides that the vehicle supplier (a) will inspect its vehicles before delivery to Northern Metal Recycling, (b) warrants the scrap metal delivered will not include certain components and materials (specifically including refrigerants, hazardous wastes, pollutants, contaminants, and any containing mercury), and (c) indemnifies and holds harmless Northern Metal Recycling from all claims resulting from a breach of the contract.

⁵ As noted above in Section IIB, Northern Metal Recycling does not currently process vehicles at the Pacific Street Yard, either to remove refrigerants, hazardous, wastes, pollutants, or contaminants from them or to shred them. If the MPCA approves the requested amendment to the Air Emission Permit to allow vehicles to be recycled in the shredder, vehicles would be received at the Pacific Street Yard subject to the restrictions in Section IIB, and this footnote would be removed from this Plan.

IV. LOAD INSPECTIONS

Northern Metal Recycling's third line of defense against hazardous wastes, pollutants, and contaminants entering its facilities and against explosions at its facilities (and specifically in the shredder) is the company's load inspection program. The program is described in this section and will continue in use at the Pacific Street Yard as part of this Plan.

A. Visual Inspections and Records of Incoming Material at the Truck Scale

All trucks entering and leaving the Pacific Street Yard are weighed on the incoming truck scale or the rail scale. During this weighing process, the type(s) of material is (are) recorded by the scale operator. The scale paperwork keeps track of (a) the time, date, weight, and type of the material, (b) the supplier; and (c) the exact point of origin. This latter is especially important for industrial accounts with several locations. The truck and rail scales are equipped with video cameras that feed to closed circuit televisions in the scale house that serves both scales. The scale operator visually inspects each load using the closed circuit televisions. When the scale operator sees material in a load that does not meet Northern Metal Recycling's specifications, the scale operator rejects the load, and it is returned to the supplier.

B. Inspections After the Truck Scale

After a load has been inspected and cleared by the scale operator, the scale operator then informs the load inspector and the crane operator by radio that a truck is coming to the crane area for unloading. The scale operator directs the driver to the appropriate unloading area. Generally, iron and steel are unloaded in the Yard's open areas and nonferrous metals such as aluminum, brass, and copper are directed to one of the two nonferrous metals warehouses.

The load inspector inspects every load when it is unloaded at the Yard. The crane operator also continuously examines the material as it is unloaded with the overhead cranes. If the crane operator or any other Yard personnel see materials which do not meet specifications, the material is immediately segregated. The load inspector performs an additional inspection on the segregated material. If the load inspector determines that material does not meet specifications, the Yard Supervisor or Operations Manager is notified, inspects the load, and notifies the Environmental Manager. The Environmental Manager pulls together the necessary information for documentation, and the rejection procedure (described below) is carried out.

A third check of the materials is made by the shredder operator when the material is loaded into the shredder for processing. The shredder operator is stationed in a booth with a view of the material on the infeed conveyor. If the shredder operator sees material on the infeed conveyor that does not appear to meet specifications, the shredder operator stops the conveyor until the material can be removed. The load inspector performs an additional inspection on any material removed from the conveyor. If the load inspector determines that material does not meet specifications, the Yard Supervisor or Operations Manager is

notified, inspects the load, and notifies the Environmental Manager. The Environmental Manager pulls together the necessary information for documentation, and the rejection procedure (described below) is carried out.

C. Rejection Procedure

Northern Metal Recycling's rejection procedure is to: (a) segregate the unacceptable materials; (b) call the supplier as soon as possible to explain the reason for the rejection; and (c) fax the backup documentation to the supplier. This documentation sets forth exactly what materials were rejected and why. The documentation also states the pertinent specification policy. The rejection documentation is intended to be, and is, an effective tool to educate suppliers. The supplier must pay for return transportation and any special handling costs. The weight of the rejected material is deducted from the weight of the affected load for payment purposes, as partial loads are sometimes rejected and the balance of the load accepted.

V. RECORDKEEPING

Northern Metal Recycling will maintain the following records for at least five years.

- Computerized records that show the date, weight, scrap metal grade (which specifically indicates whether the load will be shredded or otherwise recycled), supplier, and truck description for all loads.
- Daily weights of all ferrous metals produced at the shredder.
- Daily weights of all nonferrous metals produced by the Metal Recycling Plant from processed shredder residue.
- Monthly total of all metals (by weight) and 12-month rolling sum of all metals (by weight) produced.
- Description of materials rejected and documentation providing the reason for rejection.
- Documentation of supplier certification for suppliers of the following:
 - items which had previously contained refrigerants;
 - appliances; and
 - vehicles.
- For vehicle scrap, records of the number of mercury switches removed (or the weight of mercury recovered from the switches), the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were either returned to the supplier or recycled at a facility with a permit as required under RCRA Subtitle C.
- Documentation that Northern Metal Recycling is a participant in the NVMSRP.
- Documentation of employee training, including the date of training, names of persons trained, a description of the content of the training, names of course instructors, and number of contact hours for each training event.
- Records of weekly inspections by area supervisors, including the date of inspection, the results of the inspection, and any corrective actions taken as a result of the inspection.
- Records of monthly and semiannual inspections by the environmental manager, including the date of inspection, the results of the inspection, and any corrective actions taken as a result of the inspection.
- Records of inspections and audits of suppliers, including a description of what was audited and the results of the audit.

NORTHERN METAL RECYCLING

UNACCEPTABLE MATERIALS LIST

The Following is a list of materials that Northern Metal Recycling **WILL NOT ACCEPT** at any of its facilities:

1. **Airbag canisters.**
2. **Asbestos or asbestos containing materials**, including any wire or cable that contains asbestos.
3. **Chemicals or containers that currently contain chemicals.**
4. **Cracked and/or broken lead-acid batteries**, including pieces of batteries.
5. **NiCad, lithium or other batteries that are not lead-acid type.**
6. **Dioxins or any dioxin containing device or material.**
7. **Electronic waste**, including the following items whether intact, in pieces, or as parts:

Blackberry and similar devices	Heat sinks
Battery back-up units	Mercury bearing components
Cathode ray tubes	PCB bearing components
Capacitors	PCB bearing transformers and ballasts
Electrolytic capacitors	Phones
Clocks	Cell phones
Communications equipment	Printed circuit boards
Desktop computers	Printers
Laptop computers	Radios, stereos, I-Pods, MP3s, and other audio playback devices
Mainframe computers	Telecommunications equipment
Computer CRTs and monitors	Televisions
Computer hard and back-up drives	Semiconductor equipment
Computer keyboards and mice	Smoke alarms
Computer parts and accessories	Test equipment
DVD and CD players	Video monitors
Fax machines	Video recording and playback equipment
8. **Explosive or flammable materials.**
9. **Fluorescent lights including ballasts.**
10. **Any "Hazardous Waste" as defined by any applicable federal, state, or local legal requirement.**
11. **Mercury or any mercury containing device or material.**
12. **PCB capacitors, PCB capacitor-bearing materials, PCB containing transformers, and any other PCB containing device or material.**
13. **Radioactive materials.**
14. **Vehicle used oil filters.**
15. **Waste oil in free-flowing form.**

NORTHERN METAL RECYCLING

PROVISIONALLY ACCEPTABLE MATERIALS LIST

The following is a list of materials that Northern Metal Recycling **WILL ACCEPT** at its facilities, **BUT ONLY IF THEY MEET THE LISTED PROVISIONS:**

1. **Appliances that normally contain refrigerants**, including air conditioners, dehumidifiers, freezers, ice makers, refrigerators, vending machines, and water coolers, BUT ONLY IF the refrigerants, hazardous wastes, pollutants, and contaminants, including mercury containing components, have been removed by a Northern Metal Recycling/state certified appliance recycler.⁶
2. **Barrels, drums, or other containers**, BUT ONLY IF they have been emptied and cut into two pieces.
3. **Brake shoes**, BUT ONLY IF they contain no asbestos.
4. **Compressed gas cylinders and oxygen bottles**, BUT ONLY IF they have been cut into two pieces, and the valves have been removed.
5. **Gauges and measuring devices**, BUT ONLY IF free of hazardous materials, specifically including mercury and radioactive materials.
6. **Gas tanks or fuel tanks**, BUT ONLY IF the tanks have been completely drained and cut into two pieces.
7. **Larger tanks**, BUT ONLY IF the tank is accompanied by a certification that the material inside the tank has been removed and the tank is either cut into two pieces or approved for processing by the Environmental Manager.
8. **Medical and dental equipment**, BUT ONLY IF the equipment does not contain any electronics, hazardous wastes, pollutants, and contaminants, and the Environmental Manager has inspected the equipment and approved its acceptance.
9. **Metallic sludges and drosses**, BUT ONLY IF the supplier provides documentation acceptable to the Environmental Manager showing the sludge or dross does not contain hazardous wastes, pollutants or contaminants and has been generate in compliance with applicable legal requirements.
10. **Military and/or government scrap**, BUT ONLY IF it is certified to be free of explosive, flammable, and hazardous materials.
11. **Sealed units**, including drivelines, hydraulic cylinders and jacks, propane tanks, and shock absorbers BUT ONLY IF drained of all oils and other nonmetallic substances and punctured.
12. **Transformers and transformer components**, BUT ONLY IF certified to be free of PCBs and other hazardous materials, pollutants, and contaminants.
13. **Vehicles that have been baled, logged, crushed or otherwise compressed**, BUT ONLY IF the gas tanks, any refrigerants, and any hazardous materials, pollutants, or contaminant, including mercury

⁶ As noted in section IIB of the Plan, Northern Metal Recycling does not currently remove refrigerants from appliances. If in the future Northern Metal Recycling determines to enter this business, it will first become a state certified appliance recycler. At that point, Northern Metal Recycling may accept appliances containing refrigerants and remove the refrigerants at its facilities before further processing.

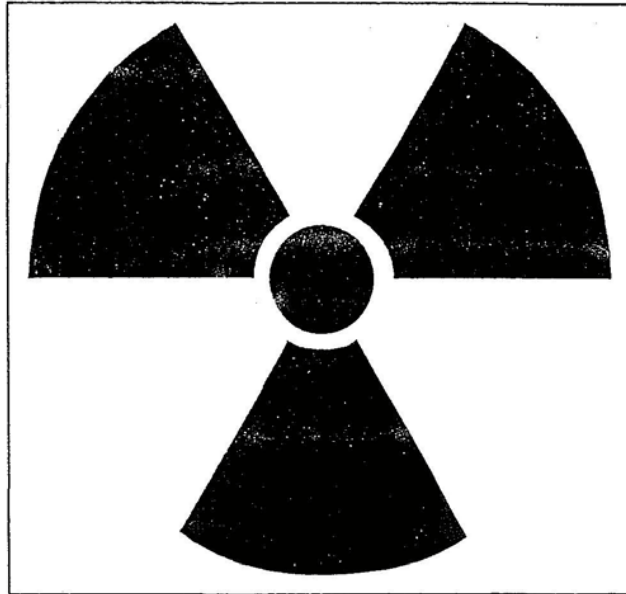
containing components, have been removed by a Northern Metal Recycling certified vehicle supplier.⁷

14. **Vehicle scrap associated with oils**, including motor blocks, torque converters, and transmissions, BUT ONLY IF they have been drained of all fluids.

⁷ As noted in Section IIB of the Plan in, Northern Metal Recycling does not currently process vehicles at the Pacific Street Yard, either to remove refrigerants, hazardous, wastes, pollutants, or contaminants from them or to shred them. If the MPCA approves the requested amendment to the Air Emission Permit to allow vehicles to be recycled in the shredder, vehicles would be received at the Pacific Street Yard subject to the restrictions in Section IIB, and this footnote would be removed from this Plan.

NORTHERN METALS, LLC

Radiation Protection Safety Procedures



NORTHERN METALS, LLC

RADIATION PROTECTION SAFETY PROCEDURES

Thomas Swafford, Environmental Director
Northern Metal Recycling, LLC
2800 Pacific Street North, Minneapolis, MN 55411
Phone 612-529-9221 Fax 612-529-2548

NORTHERN METALS, LLC RADIATION PROTECTION SAFETY PROCEDURES

I. INTRODUCTION

A. General

1. Ionizing Radiation is defined as electromagnetic or particulate radiation capable of producing ions, directly or indirectly, by interaction with matter. Ionizing radiation cannot be felt, seen, heard, tasted, or smelled. However, ionization radiation can be guarded by the use of barriers and warning devices.
2. Radioactive material occurs in many forms, shapes and sizes and is used in many different applications: level control gauges in steel making, thickness of foil, smoke detectors, medicine, watch dials, etc. There are also applications where radioactive particles commonly found on Earth are transferred as small particles to processing equipment; contaminating pipes, heat exchangers, beams, etc.

B. Objective

1. Northern Metals' objective is to detect ionizing radiation in scrap metals before processing the metals to: 1) minimize the likelihood of radioactive waste being a hazard to Northern Metals' employees; 2) to minimize environmental contamination; and 3) to assure our markets that no radioactive materials are shipped from Northern Metals. Northern Metals will monitor all incoming and outgoing scrap, vehicles and rail cars. The Rad Com portal radiation monitors, located on the truck scale and rail scale, will ensure all scrap entering and exiting the facility has been checked for radiation.

C. Exposure Protection

The basic measure of protection from radiation hazards is *TIME, DISTANCE, and SHIELDING*.

1. Minimize TIME of Exposure

- a. *The longer the exposure, the greater the chance of injury. Reducing the exposure time by one-half reduces the radiation dose by one-half.*

2. Increase DISTANCE from Source

- a. *Increasing the distance greatly reduces the exposure. Doubling the distance reduces the exposure by 1/4 of the original amount.*

3. Maintain SHIELDING

- a. *Shielding is important during the construction of radioactive devices, but unfortunately is an unknown factor when dealing with scrap waste since the type of*

shielding necessary is dependent upon the type of radioactive particle. Shielding around a radioactive device should never be tampered with.

It is of the utmost importance that all Northern Metals' employees never approach a suspected radioactive load without previously monitoring surrounding radiation. Northern Metals' radiation safety officers will rope off the load at distances which will not present a hazard to Northern Metals employees. Employees should never go closer than the "roped off" distances.

II. RESPONSIBILITIES

A. Scale Operator

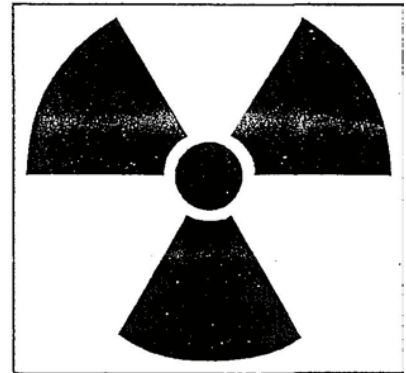
1. Maintain working knowledge of the Rad Comm Radiation monitor and notify the radiation protection officer in the event of any alarm situation.

B. Radiation Safety Officer

1. Maintain working knowledge of the Rad Comm Radiation Monitor.
2. Conduct testing of suspected radioactive loads.
3. Notify the affected agencies of any suspected loads.
4. Complete the radiation detection report after detection of load.
5. Conduct periodic inspections of the Rad Comm monitor.

C. Northern Metals Employees

1. Never approach an unevaluated suspected radioactive load.
2. Maintain distances beyond the "roped off" areas.
3. Although incoming loads are being evaluated for radioactivity, all employees should be alert for devices marked with the following symbol. If such a marked device is found, immediately notify Northern Metals radiation safety officer and maintain at least a 120 foot distance away from the device.



III. RAD COMM ALARM SAFETY PROCEDURES

A. Alarm Sounds

1. Scale operator will notify radiation safety officer. Ask driver to stop vehicle immediately and pull his/her vehicle at least 120 feet from entrance down Pacific Street. Also tell the driver to wait a couple minutes before coming back for a retest.

2. Scale operator will reset alarm. Ensure that all personnel stay at a safe distance of at least 120 feet from truck.

B. Confirmation of Alarm Condition

1. Ask the driver to drive the vehicle at a slow speed (5 mph) past the detector without stopping. If an alarm occurs follow procedures for POSITIVE CONFIRMATION. If an alarm does NOT occur after repeating this procedure, the load can be allowed to be unloaded.

C. Positive Confirmation of Alarm Condition

1. Ask the driver to drive vehicle to an area on Pacific Street at least 120 feet from personnel.
2. Check the RC/2 portable monitor for proper operation.
3. Radiation safety officer will use the RC/2 portable monitor and with the monitor operating and held in front of the officer, will approach the vehicle. The entire perimeter of the vehicle should be checked. AT NO TIME SHALL THE SAFETY OFFICER OR ANY EMPLOYEE APPROACH THE VEHICLE AT A DISTANCE CLOSER THAN THAT WHICH WOULD PRODUCE A READING ABOVE 5000 COUNT. THE AREA AROUND THE VEHICLE SHALL BE ROPED OFF TO PREVENT EMPLOYEES FROM BEING EXPOSED TO ABOVE A 5000 COUNT READING. THE "RADIATION AREA" SIGN SHALL ALSO BE POSTED.
4. ALL DETECTIONS SHOULD BE HANDLED WITH CAUTION AND NEVER HANDLED WITHOUT THE PROPER PERSONNEL PROTECTION EQUIPMENT AND TRAINING.
5. The Radiation Detection Report shall be complete by the safety officer and contact made to Minnesota Department of Health, Radiation Group or to the Nuclear Regulatory Regional Office, depending on the particular type of scrap and the vehicle's owner.

IV. RAD COMM DEVICE INSPECTION

A. Daily

1. Operation Status Indicator Lights
 - a. *Monitor Indicator is green and should be steady on (flashing or off indicates defective operation)*
 - b. *Low Battery Indicator*
 - c. *Charge Indicator*

B. Quarterly

1. Adequacy of signal activation device
2. All power sources
3. Function of alarm circuits and trouble indicating lights
4. Check source test; fast & slow response test on external units
5. Check source test on portable
6. System power interruption test

V. REFERENCES

A. 29 CFR Part 1910-96 - OSHA - Ionizing radiation

B. 10 CFR Part 20 Nuclear Regulatory Commission's Standards for Protection

REFERRALS LIST

Unprocessed

Appliances:

(including all washers, dryers, dishwashers, hot water heaters, heat pumps, furnaces, garbage disposals, trash compactors, conventional and microwave ovens, ranges, and stoves, air conditioners, dehumidifiers, refrigerators, and freezers):

ARCA
7400 Excelsior Blvd
St. Louis Park, MN
952-930-9000

Central Appliance
Recyclers
3107 Highway 10 SE
St. Cloud, MN
800-430-3221

J.R. 's Appliance
Disposal
10619 Briggs Drive
Inver Grove Heights,
MN
651-454-9215

Used Oil and Used Oil Filters:

OSI Environmental, Inc.
20401 County Road 81
Rogers, MN 55374
800-628-7657
www.osienv.com

Lead Acid Batteries:

A-Battery City
58 Ninth Ave. NE
Minneapolis, MN 55413
612-379-7735

Rechargeable Batteries:

US Filter Recovery
Services, Inc.
2430 Rose Place
Roseville, MN 55113
651-638-1300

Fluorescent Bulbs:

Recyclights
401 W 86th Street
Bloomington, MN 55420
612-948-0626

Ballasts:

Light Cycle
1222 University Ave
St. Paul, MN 55104
612-641-1309

Used Appliances:

ARCA
7400 Excelsior Blvd
St. Louis Park, MN
952-930-9000

Mercury Thermostats:

Thermostat Recycling
Corporation
www.thermostat-recycle.org

Mercury Switches or other mercury-bearing wastes:

Recyclights
401 W 86th Street
Bloomington, MN 55420
612-948-0626

Circuit Boards, Computers, Telecommunications Equipment:

Asset Recovery
2299 Territorial Road
St. Paul, MN 55114
800-472-2081
651-602-0789

Containers With Some Residue or Small Amount of Liquids:

Consolidated Containers
Co., LLC
109 27th Avenue NE
Minneapolis, MN 55418
612-781-0923

Tanks With Liquids or other Residues:

Determan Tank &
Welding
1241 72nd Avenue NE
Minneapolis, MN 55432
800-835-6074
763-571-8110

**Construction and
Demolition Wastes:**

Materials Recovery
Limited
Rosemount, MN
651-437-8618

Veit Disposal
Como Material Recovery
Facility
1025 33rd Avenue SE
Minneapolis, MN 55414
763-422-3867

Vonco II Landfill &
Recycling Facility
15301 140th Avenue SE
Becker, MN
763-262-8662

Dem-Con Landfill
13020 Dem Con Drive
Shakopee, MN 55379
952-445-1848

Gallagher's Service Inc.
1691 91st Ave NE
Minneapolis, MN
763-784-4772

**Industrial Wastes:
(including asbestos, and
some special wastes):**

BFI Waste Services
725 44th Avenue N
Minneapolis, MN 55412
612-522-6558

Pine Bend Sanitary
Landfill
2495 East 117th Street
Inver Grove Heights,
MN 55075
651-457-8655

Elk River Landfill
22460 U.S. 169
Elk River, MN 55330
763-441-2464

**Concrete and
Bituminous
Asphalt:**

Fra-Dor, Inc.
3137 Country Drive
Little Canada, MN
55117
651-484-8180

Edward Kraemer & Sons
1020 Cliff Road West
Burnsville, MN 55337
952-890-3611

Park Construction Co.
23260 Main Street,
Suite 6
Hampton, MN 55031
651-437-2512
Fridley, MN
763-786-9800

Wood Pallets:

Pallet Service Corp
1600 Fillmore St. NE
Minneapolis
612-788-4466

Tires:

All Season Tire Company
604 Church Street
Anoka, MN 55303
763-421-0109
www.tirezoo.com

Liberty Tire Recycling
12498 Wyoming Avenue
Savage, MN 55378
952-894-5280

Waste Management
1691 91st Avenue NE
Blaine, MN 55449
763-784-4772

**Cardboard, Glass,
Newspapers, Magazines,
Office Paper:**

BFI Waste Services
725 44th Avenue North
Minneapolis, MN 55412
612-522-6558

BFI Recycling Systems
2795 117th Street East
Inver Grove Heights, MN
55077
651-437-8101

SuperCycle
195 Minnehaha Avenue
East
St. Paul, MN 55130
651-224-5081

NORTHERN METALS, LLC

EXAMPLE APPLIANCE RECYCLER CERTIFICATION AND CONTRACT



VERIFICATION OF REFRIGERANT REMOVAL

State rules and federal regulations require persons who take the final step in the disposal process (including but not limited to scrap recyclers) of a small appliance, motor vehicle air conditioner (MVAC), and MVAC-like appliance to either recover the remaining refrigerant or verify that the refrigerant has been removed from the appliance(s) previously. Such verification shall be in the form of the statement that follows:

SECTION 1.¹ COMPANY ACCEPTING APPLIANCES, MVACS, OR MVAC-LIKE APPLIANCES:

Name

Company

Address

City

State

ZIP

Type of Appliance(s) Being Accepted (check all that apply) ☐ MVAC ☐ Refrigerator ☐ Room A/C ☐ Other _____

SECTION 2. PERSON WHO RECOVERED REMAINING REFRIGERANT:

Name

Company

Address

City

State

ZIP

Date Refrigerant Recovered

☐ Check box if all of the refrigerant in the appliance(s) had leaked previously, therefore no refrigerant recovery was performed

SECTION 3. CERTIFICATION FROM THE SUPPLIER OF THE APPLIANCES, MVACS OR MVAC-LIKE APPLIANCES:

I certify that all the refrigerant that had not leaked previously has been recovered from any appliance, MVAC, or MVAC-like appliance in accordance with 40 CFR pt. 82, subp. F², by the person indicated in Section 2 before delivery to the company identified in Section 1, and that the information given is true and correct.³

Authorized Signature

Date

Print Name

Company

¹ Companies identified in Section 1 must notify the suppliers, by posting warning signs or letters to the suppliers, that refrigerant must be properly removed before delivery of the items to the facility; and, must maintain a copy of this document on-site for at least three years.

² See back of page for more details on 40 CFR pt. 82, subp. F - Refrigerant Evacuation Requirements.

³ Persons who knowingly provide false statements will be subject to criminal penalties.

² **SUMMARY OF 40 CFR PT. 82, SUBP. F, CONCERNING EVACUATION REQUIREMENTS FOR MOTOR VEHICLE AIR CONDITIONERS (MVAC), MVAC-LIKE APPLIANCES, AND SMALL APPLIANCES BEFORE DISPOSAL.**

For MVAC and MVAC-like appliances, the system pressure must be reduced to or below 102 mm of mercury vacuum using equipment capable of reducing the system pressure to 102 mm of mercury vacuum under the conditions of the SAE Standard, SAE J1990.

For small appliances, at least 90% of the refrigerant in the appliance must be recovered when the compressor in the appliance is operating, or 80% of the refrigerant in the appliance when the compressor in the appliance is not operating; **or**, evacuate the small appliance to a pressure of 4 inches of mercury vacuum.

NOTE: This form is created to aid persons in the disposal/recycling chain to obtain compliance with 40 CFR pt. 82. 154(n), 82.156(f), and 82.166(i) and (m) and Minn. Rule ch. 7027.1000, subpart 2. This form is **not** required to be submitted to the Minnesota Pollution Control Agency or the U.S. EPA.

It is a violation to knowingly accept this signed statement if the person knew or had reason to know that this signed statement is false.



**MINNESOTA POLLUTION CONTROL AGENCY
2001 SELF-CERTIFICATION FORM FOR APPLIANCE RECYCLERS**

DATE _____ 20____

Minn. R. 7027.1150 require persons engaged in the business of recycling appliances which contain refrigerant to certify by January 15 of each calendar year or within 20 days of commencing business that they have acquired refrigerant recovery equipment that meets the U.S. EPA standards and only certified technicians will be authorized to use that equipment. To fulfill this self-certification requirement, please complete this form and mail to: *Stratospheric Ozone Protection Program Coordinator (Policy and Planning Division, Regular Facilities Section) Minnesota Pollution Control Agency, 520 Lafayette Road, St. Paul, MN 55155-4194.*
INSTRUCTIONS ARE ATTACHED

SECTION 1. SELF CERTIFICATION INFORMATION

A. FACILITY INFORMATION

1. Facility Engaged in the Business of Recycling Appliances:

Name _____ County _____

Address _____ Phone _____

City, State, ZIP _____ Number of Service Vehicles _____

Contact Person _____ Title _____

Does the facility accept appliances from the general public? (check one) Yes ☐ No ☐

2. Certification of the Facility Owner/Responsible Officer Engaged in the Business of Recycling Appliances:

I certify that the facility identified in Section 1.A. has acquired the recovery equipment listed in Section 1.B that meets U.S. EPA standards, and that the facility is complying with applicable Minnesota Statutes, Rules, Code of Federal Regulations, title 40, part 82, subp. F, and that the above information is true and correct.

Appliance Recycling Facility Owner/Responsible Officer Signature _____ Date _____ Name (please print) _____

B. RECOVERY EQUIPMENT OWNER/LESSEE INFORMATION

1. Owner or Lessee of Recovery or Recycling Equipment:

Name _____ County _____

Address _____ Phone _____

City, State, ZIP _____ Number of Service Vehicles _____

Contact Person _____ Title _____

2. Recovery Equipment Identification:

Manufacturer	Model	Serial Number (if any)	Date of Manufacture	Date of Acquisition
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

3 Technician Certification Identification:

Technician Name	Certification Program	Certification Type	Certification Date	Certification Number
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

4. Certification of the Owner or Lessee of Recovery or Recycling Equipment: I certify that the facility identified in Section 1.A. owns or leases the recovery equipment listed in Section 1.B.2 that meets U.S. EPA standards, that the recovery equipment will be properly used in recovering refrigerant from appliances, that each individual authorized to use the equipment is properly certified, that the facility identified in Section 1.B.1 is complying with applicable Minnesota Statutes, Rules, Code of Federal Regulations, title 40, part 82 subp. F, and that the information in Section 1.B is true and correct.

Recovery/Recycling Equipment Owner/Responsible Officer Signature _____ Date _____ Name (please print) _____

AMERICAN IRON AMERICAN IRON

2800 PACIFIC ST. NORTH • MINNEAPOLIS • MN 55411 • (612) 529-9221 • FAX (612) 529-2548

Since 1885 • Environmentally Responsible Recycling

Seller's Contract/Indemnification For Removal of "Hazardous Substances"

SELLER:	
Company Name	Owners Name (print)
Address	Owners Signature
City, State, Zip Code	Date
Telephone #	Email Address
Fax #	

We verify that the company listed above is an independent contractor with respect to American Iron.

Notwithstanding any other warranty or limitation of warranty herein, Seller warrants that he/she has carefully inspected or caused to be inspected each of the metal scrap items delivered or to be delivered under this contract of sale (including without limitation appliances, and similar equipment) and that none of said items contains: (1) any capacitor, ballast or similar enclosed reservoir containing PCB-bearing liquids or residues, (2) any hazardous solutions or vapors including but not limited to sulfur dioxide, ammonia and antifreeze solutions, (3) any mercury containing components including, but not limited to, relays, temperature devices, lamps, and switches, or (4) any of the items listed in the enclosed attachment entitled **Unacceptable Materials**, or (5) any "hazardous substance" as that term is defined in Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601(14), as amended, except those "hazardous substances" which are integral constituents of the metallic fraction of the item. Seller warrants that none of the items shipped to American Iron contain CFC's (chlorofluorocarbons); as consistent with Section 608(b)(1) and 608(c) of the Clean Air Act, which provides that CFC refrigerants and any substitutes "shall be removed from each such appliance, machine or other good prior to the disposal of such items or their delivery for recycling." Seller will indemnify and hold Buyer harmless from any and all claims, resulting in whole or in part from a breach of the foregoing warranty.

This agreement shall continue until revoked in writing by either Seller or Buyer, whereupon this agreement will terminate thirty days after the other party receives notification.

BUYER:	
AMERICAN IRON	
Company Name	Signature
Date	Title



Member ISRI
<http://www.scrappy.com>



APPENDIX C: Parameters used in PM_{2.5} and PM₁₀ NAAQS Modeling

Facility Name: Northern Metals LLC

Permit Number: 05300480-003

Air Dispersion Modeling Point Source Parameters for Northern Metals, LLC (All Ave. Times)									
SRCID	X Coord.	Y Coord.	Elev.	PM ₁₀ Emis. Rate	PM _{2.5} Emis. Rate	Stack Height	Temp	Exit Velocity	Stack Diameter
	<i>m</i>	<i>m</i>	<i>m</i>	<i>g/s</i>	<i>g/s</i>	<i>m</i>	<i>K</i>	<i>m/s</i>	<i>m</i>
SV 001*	478249.39	4984140.72	247.19	1	1	20.7	292	18.24	1.76
				0.529**	0.529**				

*Modeling files use the ID "NMRSV010". SV010 was mistakenly input for SV001.

**This is the actual emission rate of SV 001 used in the hourly emissions file. The modeling input files use an unitized emission rate of 1 g/s

Air Dispersion Modeling Area Source Parameters for Northern Metals, LLC (All Ave. Times)										
SRCID	X Coord.	Y Coord.	Elev.	PM ₁₀ Emis. Rate Flux ⁺	PM _{2.5} Emis. Rate Flux ⁺⁺	Release Height	Length of x- side	Length of y- side	Orient . angle	Initial Vertical Dim.
	<i>m</i>	<i>m</i>	<i>m</i>	<i>g/s/m²</i>	<i>g/s/m²</i>	<i>m</i>	<i>m</i>	<i>m</i>	<i>deg.</i>	<i>m</i>
FS003_ 02	478175.23	4983979.33	248.01	3.4801E- 06	1.4789E- 06	25.0	96.44	272.09	0	0.886

+Emission rate was calculated using an emission rate of 0.724764 lb/hr

++Emission rate flux was calculated using an emission rate of 0.308 lb/hr

APPENDIX D: Parameters used in Air Toxics Modeling

Facility Name: Northern Metals LLC

Permit Number: 05300480-003

Emission Rate Details

Pollutant	Existing lb/hr	Existing tons/yr	Proposed lb/hr	Proposed tons/yr
Particulate Matter (PM) PM10	0.43	0.81	4.2	7.9
PM2.5	Not regulated in original permit		4.2	7.9
Antimony compounds	0.000086	0.00016	0.0024	0.0045
Arsenic compounds	0.00052	0.0010	0.0024	0.0012
Barium compounds	0.00033	0.00062	0.0011	0.0020
Beryllium compounds	0.00022	0.00042	0.0072	0.0038
Boron	0.0013	0.0025	0.0042	0.0079
Cadmium compounds	0.00034	0.00064	0.0072	0.0025
Hexavalent chromium	0.00031	0.00059	0.0021	0.00070
Copper compounds	0.0040	0.0076	0.23	0.43
Lead compounds	0.00093	0.0018	0.02	0.0076
Manganese compounds	0.0088	0.017	0.012	0.017
Mercury compounds	0.00079	0.0015	0.00079	0.0015
Nickel compounds	0.0041	0.0077	0.086	0.030
Selenium compounds	0.000028	0.000053	0.000091	0.00017
TCDD Equivalents (PCBs/dioxins/furans)	5.42E-09	1.02E-08	8.68E-09	1.64E-08
Vanadium oxide	0.00043	0.00081	0.012	0.023
Zinc compounds	0.023	0.043	0.12	0.23

Stack Parameter Details

Source ID	Source Type	State height (m)	Stack temperature (Kelvin)	Stack Exit Velocity (m/sec)	Stack Diameter (m)
SV 001	Point	20.7	292	18.24	1.76